

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



August 4, 2020

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Introduction

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."

1 Advisory Boards and Working Groups

1.1 Advisory Boards

PG&E is using PSPS advisory boards to provide direct advisory functions related to PSPS. Input from these groups is helping PG&E develop best practices for PSPS protocols, improve community preparedness and regional coordination, and better use existing and emerging technologies.

PG&E established a PSPS Advisory Board in February 2020, which includes representatives from rural and urban cities and counties, tribal agencies, and the League of Cities and California State Association of Counties (CSAC):

- Butte County
- California State Association of Counties
- City of Santa Rosa
- Hopland Band of Pomo Indians (Mendocino County)
- Kern County
- League of California Cities
- Marin County
- Placer County
- Robinson Rancheria Pomo Indians of California (Lake County)
- Santa Cruz County
- Sonoma County

PG&E has hosted five advisory board meetings on March 5, April 1, April 8, May 27, and July 2. The meetings averaged two hours in length, in which participants offered input on a variety of PSPS program topics including customer notification scripts, wildfire safety working session content and meeting outlines, and PSPS full-scale exercises. PG&E will continue hosting these meetings to gather feedback on PSPS-related topics, coordinate with local communities, and share resources.

PG&E instituted two additional advisory boards at the suggestion of representatives of Access and Functional Needs (AFN) communities and communications providers.

1. **People with Disabilities and Aging Advisory Council (PWDAAC):** Provides a forum to gather insight on the needs of AFN populations related to emergency preparedness and to facilitate co-creation of solutions and resources to serve customers reliant on power for medical needs in relation to a PSPS event.

2. **Energy and Communications Providers Coordination Group:** Provides a forum for communications providers to provide feedback on PG&E’s current PSPS implementation protocols and to coordinate engagement before and during PSPS events.

PG&E, Southern California Edison, and San Diego Gas & Electric established the Joint IOU AFN Advisory Council with a two-day kickoff meeting on June 15 and 18 and an additional working session on July 24. 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.

PG&E will continue to meet with these stakeholders and will periodically bring these groups together, along with other stakeholder groups outlined in D.20-05-051, to solicit feedback on the PSPS program and identify opportunities to improve our services to vulnerable customer groups and others.

1.2 Regional Working Groups

PG&E convenes regional working groups for agencies and organizations to share lessons learned between PSPS affected communities and PG&E. This section summarizes PG&E’s regional activities since the initiation of the working groups, in the late spring of 2020.

On May 27, 2020, PG&E met with the PSPS Advisory Board to receive feedback on the proposed regions for the regional working groups. In consultation with the Advisory Board, PG&E has confirmed the regions and the initial list of participating organizations. The five regions are North Coast, North East, Bay Area, Central Valley, and Central Coast. The participating organizations include small multi-jurisdictional electric utilities, community choice aggregators (CCAs), publicly owned electric utilities, communications and water service providers, CPUC Staff, tribal and local government entities, public safety partners, and representatives of people and communities with access and functional needs, such as directors of local independent living centers (ILCs) and Regional Centers.

Table 4 in Appendix A includes the initial list of participants invited to join one of the five regional working groups.

On July 27-29, 2020, PG&E hosted kick-off regional working group sessions in each of the five regions. PG&E will host sessions quarterly to continue to collaborate and obtain input, solicit recommendations, and gather feedback on the PSPS program.

1.2.1 PG&E Regional Open Houses (Webinars)

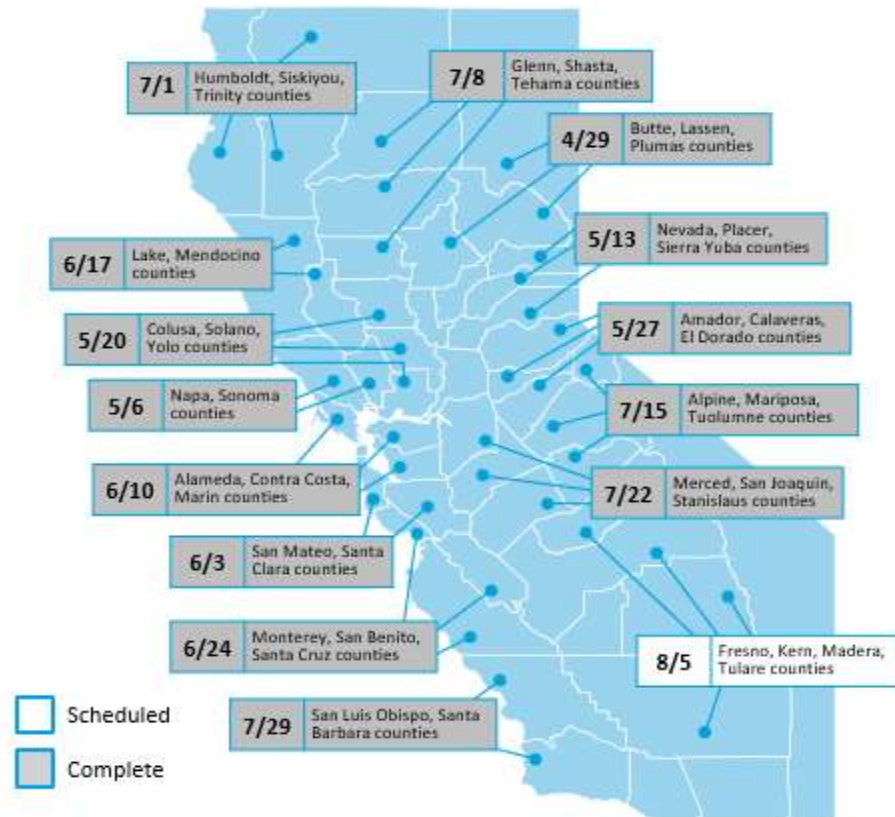
PG&E planned over 40 in-person community open houses between April 1 and August 20, 2020, to help prepare customers for wildfire season and address PSPS-related issues. These sessions would address areas of improvement based on city, county, customer, and other stakeholder feedback, and after-action review insights and progress. However, due to the COVID-19 pandemic, PG&E pivoted to conduct these open houses in a regionally focused webinar format on a modified schedule.

As of August 4, PG&E has conducted 14 of the 15 regionally focused webinars sharing details on local wildfire safety work progress and answering questions from participants. Figure 1. PG&E Local Wildfire

Safety Webinar Schedule by Region, depicts the webinar regions and dates. To date, almost 4,000 participants have attended these webinars.

To facilitate residential customer participation, all webinars took place after standard working hours, from 5:30 p.m. to 7:00 p.m. For customers who are deaf or hard of hearing and those with limited English proficiency, each webinar included closed captioning in English, and translated closed captioning in Spanish and Chinese. The presentation portion of the webinar was recorded in 13 languages, including American Sign Language, and will be posted on PG&E’s website by September 1, 2020¹.

Figure 1. PG&E Local Wildfire Safety Webinar Schedule by Region



PG&E will host two additional, territory-wide webinars for all customers on August 12 and August 19, 2020.

Since not all customers have access to technology and/or internet service, PG&E filmed webinar footage in July to produce a 30-minute broadcast webinar. PG&E plans to edit the program and air it in three major media markets (Bay Area, Sacramento, and Chico/Redding) by the end of August. PG&E will convert the voiceover track into a podcast based on a suggestion provided by a visually impaired

¹ Past presentations and the recordings can be found on PG&E’s Wildfire Safety Webinar website at www.pge.com/firesafetywebinars.

PWDAAC member who noted that visually impaired individuals access informational podcasts using voice command assistive technology.

2 De-Energization Exercises

PG&E has conducted two three-day, full-scale exercises on June 24-26 and July 15-17 to test the execution of processes and procedures within its Company Emergency Response Plan and PSPS Annex. These exercises were regionally based beginning with the South Region in June and moving to the Bay/Central Region in July with increasing in complexity. PG&E’s third field exercise will be a complex 5-day exercise held August 3-7 focused on the Northern Region. Given current COVID constraints, the EOC activated in a virtual posture for both exercises and activated Regional Emergency Centers and Operations Emergency Centers to test the coordination with the EOC and the field patrol activity. The third August exercise is also planned virtually.

During these exercises, PG&E tested

- Implementing a PSPS event in a virtual environment following COVID-19 social distancing and safety orders
- Implementing agency and customer notifications
- Submission of the new online PSPS State Notification Form
- Identifying Community Resources Centers (CRCs) based on event scope
- Assigning temporary generation for backup power support at substations and critical customer facilities
- 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
- 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

Participants included PG&E EOC, REC and OEC personnel, as well as representatives from CPUC, CalFire, Cal OES, CCAs, communications providers, representatives of people and communities with AFN, and other public safety partners, including a water agency, transportation provider, and hospital council. PG&E shared the initial lessons learned from the two exercises at its first PSPS regional working groups held in late July.

Table 1 includes a summary of the total number of participants, dates, locations, and participants that either observed and/or acted as players in the exercise. The external participants list for August reflects exercise invitees.

Table 1. Summary of PG&E PSPS Exercises

PSPS Exercises	South Region: June 24 - 26	Central Region: July 15-17, 2020	North Region: August 3 – 7, 2020
Total Number of Participants²	255	313	Upcoming

² Includes PG&E and external players and observers

PSPS Exercises	South Region: June 24 - 26	Central Region: July 15-17, 2020	North Region: August 3 – 7, 2020
Counties	Fresno, Kern, Kings, Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Clara, Santa Cruz, Tulare	Alameda, Alpine, Amador, Calaveras, Contra Costa, Madera, Mariposa, Merced, San Francisco, San Joaquin, San Mateo, Stanislaus, Tuolumne, Santa Clara, Santa Cruz	Butte, Colusa, El Dorado, Glenn, Humboldt, Lake, Lassen, Marin, Mendocino, Napa, Nevada, Placer, Plumas, Shasta, Sierra, Siskiyou, Solano, Sonoma, Sutter, Tehama, Trinity, Yolo, Yuba
Agency / Participant Players	County OESs	County OESs AT&T Verizon Comcast T-Mobile/Sprint East Bay Municipal Utility District (EBMUD) BART	County OESs AT&T Comcast T-Mobile/Sprint Charter Communications Comcast Frontier Local Community Choice Aggregators California Foundation for Independent Living (CFILC) Hospital Council Association of California Water Utilities People with Disabilities and Aging Advisory Council Seneca and Plumas District Hospitals
Agency Observers	AT&T Verizon Comcast T-Mobile/Sprint Hospital Council Association of California Water Utilities CPUC Cal OES Department of Transportation CalFire	Hospital Council East Bay Community Energy Charter Comm Association of California Water Utilities CalFire Cal OES CPUC	Hospital Council Association of California Water Utilities CalFire Cal OES CPUC

In addition to the full-scale exercises, PG&E conducted end-to-end process testing for its updated direct-to-customer notifications. This included notification tests (to PG&E employees) to validate planned message delivery functionality, as well as User Acceptance Testing (UAT), Production Verification

Testing, translation testing, and a number of end-to-end process tests to validate messaging system stability and data integrity.

On July 27, 2020, PG&E also coordinated a tabletop exercise directly with the California Foundation for Independent Living Centers (CFILC) and local ILCs to test the in-event communications processes planned with PG&E's newly established dedicated point of contact for CBOs, called the CBO Liaison.³

3 PSPS Communications

PG&E uses a variety of methods to deliver information about PSPS events to our customers and partners. As described below, we have significantly improved the quality of this information, the breadth of our delivery channels, and our ability to reach the right customers in a timely fashion.

3.1 PSPS Event Communication Channels

As described in PG&E's 2020 Wildfire Mitigation Plan,⁴ 2020 CWSP Outreach Workplan,⁵ and 2020 PSPS AFN Plan,⁶ PG&E uses a multifaceted communication approach to reach all populations potentially impacted by a PSPS event. The key communication channels used to reach customers and the public during events include: (1) proactive communications sent directly from PG&E to potentially impacted customers; (2) event-related public awareness communications provided by PG&E; and (3) coordination and collaboration with third party agencies, media, and local organizations to share event information through their own networks. These three approaches are described below.

3.1.1 PG&E Direct-to-Customer Communications

PG&E makes every effort to provide accurate notifications prior to and during PSPS events PG&E communicates directly with customers if they are identified to be potentially impacted by the PSPS event in the following ways:

- **Customer Notifications:** PG&E provides automated direct to customer notifications if identified to be potentially impacted via automated calls, texts and emails.
- **Additional Notifications for Medical Baseline Customers:** Medical Baseline customers receive customized phone, text and email messages that request confirmation that the notification was received. Additionally, PG&E sends hourly notifications to those customers who have not confirmed receipt. PG&E conducts site visits (referred to as "door knocks") to customers who have not confirmed receipt of notifications about upcoming events.
- **PSPS Zip Code Alerts:** PG&E issues PSPS Zip Codes Alerts to customers who sign up before a PSPS event to receive notifications by zip code if they are not a PG&E customer of record.
- **Website Updates:** PG&E provides website updates with real-time PSPS event updates and live, interactive outage map, PSPS address lookup tool, tools to update contact information, preparedness tips, including for Medical Baseline Program participants, wildfire safety webinars

³ See PG&E's 2020 PSPS Access and Functional Needs Plan (pg. 21), which describes the CBO Liaison role.

⁴ PG&E 2020 Wildfire Mitigation Plan Report, Section 5.6.2.4 Customer, Agency, and External Communications; February 28, 2020, pp. 5-304 - 5-305

⁵ PG&E Wildfire & Public Safety Power Shutoff (PSPS) Outreach Workplan and Budget, May 15, 2020; pp 8 - 17

⁶ PG&E's Access and Functional Needs Plan for Public Safety Power Shutoff Support, June 1, 2020; pp. 19 - 22

and recordings, PPS planning maps, a 7-day PPS event forecast, resources available to customers such as backup power solutions, historical PPS event and progress reports, including key emergency-related materials and pages translated in six⁷ languages prevalent in PG&E's territory (with plans to translate the PPS Emergency website in an additional six languages⁸ before October 2020).

3.1.2 PG&E Public Awareness Communications & Call Center Support

In addition to notifying customers of record directly if they are identified to be in upcoming PPS scope, PG&E provides broad, public awareness of the event. These approaches include:

- **Media Engagement:** PG&E engages with local and/or national news media by sharing press releases via the business wire, conducting media briefings for large events, participating in interviews, and coordinating with multi-cultural news outlets to issue translated content through their existing channels (e.g., public radio, social media, online, etc.). The multi-cultural new organizations represent at least 12 different language segments, including media groups that serve indigenous communities.
- **Advertising:** PG&E advertises critical PPS event information primarily through traditional radio, digital radio, digital banners on the web. Additionally, PG&E may advertise event information through social media and television.
- **Social Media Engagement:** PG&E posts on-going PPS event information and updates directly on its social media channels via Facebook, Twitter and Nextdoor.
- **Call Center Support:** PG&E operates four contact centers in the state of California and provides 24/7 emergency live agent service for customers to report emergencies and obtain PPS-related updates, as needed. PG&E's call centers are equipped to provide translation support in over 250 languages (including 10 indigenous languages).

3.1.3 PG&E Coordination with Third Parties to Share Event Information

PG&E coordinates with other organizations, agencies, and media who pass event communications to customers, which enable event messaging to reach customers through different channels.

- **Public Safety Partner Collaboration:** PG&E collaborates with local agencies and communications providers who share event information with their constituents via city or county websites, Nixle and Reverse 911.
- **California Foundation for Independent Living (CFILC) and Local Independent Living Center (ILC) Collaboration:** PG&E has an established agreement with CFILC⁹ to increase awareness of potential PPS events and provide services to those with access and functional needs. CFILC's

⁷ These six languages currently available include: Spanish, Chinese, Vietnamese, Tagalog, Russian, Korean

⁸ These six languages include: Arabic, Punjabi, Farsi, Japanese, Khmer, Hmong, which were identified by PG&E in accordance with WMP Phase 2 Decision 20-03-004 (OP 1)

⁹ CFILC is a registered 501(c)(3) non-profit corporation that increases access and equal opportunity for people with disabilities by building the capacity of Independent Living Centers throughout California. In addition to operating as a membership organization, CFILC has several statewide programs and campaigns that focus on different areas of disability advocacy and provide avenues of success for both their members, the IL Network and, more importantly, people with disabilities of all ages who chose to live independently in their community of choice.

PG&E funded Disability Disaster Access and Resources Program offers portable backup power for qualifying customers, emergency preparedness outreach and education, accessible transportation to help AFN customers evacuate a home or reach a CRC to charge medical devices, hotel vouchers and food stipends, and promotion of PG&E's Medical Baseline Program.

- **Informational Community-Based Organizations (CBO) Collaboration:** PG&E has informal partnerships with nearly 200 CBOs to share PSPS-related information through the CBO's channels and networks before and/or during a PSPS event (as through in-person community events/meetings, and social media sharing). PG&E will coordinate with CBOs through our newly established CBO Liaison.
- **Multi-Cultural CBOs:** PG&E is establishing agreements with CBOs to provide PSPS-related message transactions in indigenous languages, reaching customers live streaming on Facebook, local community meetings, and in-language radio broadcasts.
- **211 Collaboration:** During PSPS events, PG&E provides regular updates to the Interface Children & Family Services 211 Program, which PG&E sponsors through our charitable giving grant program. The 211 service provides information and support related to local health and social service resources spanning topics from the current COVID-19 pandemic, wildfires and PSPS events, and available resources through PG&E's Disability Disaster Access and Resources Program.¹⁰ The 211 channel helps direct non-emergency calls away from critical to 911 lines.
- **Google SOS Alerts:** PG&E will provide PSPS event information to Google with a request to send a Google SOS alert. Google SOS alerts send push notifications to Android smart phones and iOS devices that have select Google Apps installed. Depending on the phone software, users either receive a push alert or get notification of the event while using location specific functions. Google-distributed information can also include translations of useful phrases. While it is not guaranteed that Google will send these notifications, PG&E intends to use this channel as another way to reach our customers, particularly for large scale events.

3.2 PSPS Communication Plan Coordination

PG&E has shared our communication and notifications plans with Cal OES, local governments, and representatives of people and communities with access and functional needs and gained their feedback as described below.

3.2.1 Coordination with Local Agencies

This year, PG&E has improved our coordination with local communities to provide better information before wildfire season and better interaction during PSPS events. We are offering greater transparency around how our electric system is designed and operated and the processes involved in PSPS events. Specific coordination activities are described below.

Listening Sessions

In November 2019, PG&E began outreach to the counties and tribal governments impacted by 2019 PSPS events, and other key stakeholders, to schedule in-person listening sessions with PG&E leadership. These sessions provided an open forum for PG&E to listen to concerns, gather valuable feedback and identify ways to improve coordination and partnership with local communities going forward. We are

¹⁰ See PG&E's 2020 PSPS AFN Plan, which provides an overview of PG&E's engagement with 211 Referral Services

using this feedback to improve to our PSPS processes and procedures and prioritize interaction improvements.

PG&E coordinated with county and tribal emergency managers to schedule each meeting and determine the appropriate meeting participants. Many cities, special districts, and other stakeholders participated in a total of 36 listening sessions. PG&E provided a report on the Listening Sessions to the CPUC in March 2020.

Wildfire Safety Working Sessions

In March 2020, PG&E began outreach to counties and tribes to share county-specific plans for wildfire mitigation, system resiliency, and the steps we are taking to address feedback received during the fall 2019 listening sessions. Since then, PG&E's agency liaisons have been working with county and tribal Offices of Emergency Services (OESs) to co-host wildfire safety working sessions for their respective jurisdictions. The sessions began in April 2020 and are expected to be completed by August 2020. Invitees to these events have included regional key stakeholders, such as cities, tribes, CCAs, telecommunication providers, and water agencies, and local CAL FIRE and Cal OES representatives.

These sessions give local agencies the opportunity to have detailed conversations about PG&E's wildfire safety work planned in each community and PSPS improvements for 2020. The sessions also let local officials learn about the local electric system, discuss community needs and suggest further improvements to PG&E's Community Wildfire Safety Program (CWSP) and PSPS program.

3.2.2 Coordination with Representative of People and Communities with Access and Functional Needs

PG&E has been reaching out to representatives of people and communities with access and functional needs, and ILCs to share our customer notification improvements. We have invited input on our communication and notifications plans in forums, including the following:

1. **PG&E's People with Disabilities and Aging Council (PDWAAC) Meetings:** PG&E established this the PDWAAC in 2020 to solicit feedback regarding our PSPS-related programs, services, and communications with seniors and people with disabilities. To date, the PDWAAC has met on April 30, May 29, June 26 and July 31. See Section 7.6. for more information on feedback received and addressed from the PDWAAC.
2. **PG&E's PSPS Affinity Group PSPS Preparedness Webinars:** On June 8 and June 13, 2020, PG&E held PSPS preparedness webinars with affinity groups, including representatives from local CBOs and County health agencies. These are described in Section 3.6.2. These webinars generated questions and feedback about our communications approach and resources offered, including questions about Medical Baseline Program eligibility as well as suggestions to partner with Meals on Wheels and to provide the same webinar in Spanish; we are pursuing both suggestions.
3. **PG&E's Wildfire Safety Multi-Cultural Media Briefing:** On June 19, 2020, PG&E held a wildfire safety multi-cultural media briefing with collaborating agencies (e.g., CFILC, Local Fire Department) in which we shared information about how we are preparing for wildfire season, including in-language communication plans.

3.2.3 Communication during limited internet, cellular, or landline-based service

Recognizing that communication channels may be restricted due to power loss during a PSPS event, we are leveraging emergency response best practices, to provide event-specific information to state and local emergency responders through a variety of channels as early as possible. This will let our partners cascade information through traditional emergency response channels and supplement our outreach effort to customers and communities. This information is available in multiple languages, to suit communities' the demographic needs.

Our multi-pronged communication strategy to notify potential PSPS affected customers, described in Section 3.1 above, is intended to address and overcome many communications channel limitations.

3.3 Website Bandwidth

Since the 2019 PSPS events, and further detailed in PG&E's bi-weekly reporting, we have enhanced our website with significant content, user experience, stability, and capacity improvements. We have built a new standalone, cloud-based website specifically for emergencies, with the following functionalities and content:

- Automatically redirects traffic from pge.com to the alert site when an event is active
- Hosts a new "all-in-one" map that includes both PSPS planned outages and actual outages (previously two separate maps and webpages)
- Offers more precise event maps at the parcel-level (rather than buffered polygons that may falsely indicate certain addresses are included or excluded from the event)
- Provides lower bandwidth options, including "no map" outage tools on the website, that are better suited for cell phone users
- Uses more concise language and layouts for fast, clear information delivery
- Establishes a web performance protocol as more fully described below (Section 3.3.1)
- Provides a fully multilingual site that mirrors the English site with translated content currently available in six additional languages which is planned to expand to 12 non-English languages in the third quarter of 2020
- Verified ADA accessibility on both web and mobile views

3.3.1 Website Performance Protocol

In the summer of 2020, PG&E moved the PSPS emergency-related functions on its website to Amazon Web Services (AWS) cloud hosting in a multi-region configuration to ensure sufficient bandwidth capacity on our website. These emergency information functions have been configured and tested to handle six times the peak volume our site experienced in our 2019 PSPS events. The AWS hosting is designed to assure that if the primary site fails, emergency functions can be supported by backup sites. We are on track to move the www.pge.com content to a cloud-based environment supported by a high availability Service Level Agreement (SLA) by September 1, 2020. The pge.com and the emergency website are being subjected to a rigorous series of load testing activities when new functionalities are introduced and will be tested again before the start of fire season. We will conduct further performance tests of these sites on a quarterly basis.

Regarding the creation and maintenance of an action plan that ensures necessary bandwidth during a PSPS event, and consistent with PG&E's bi-weekly corrective action reports,¹¹ we have completed the first draft Website Performance Protocol (Protocol), which outlined minimum website performance, and plans to stress-test the website before each PSPS events. This Protocol specifies tests to be performed, traffic levels for testing and when those tests will be performed.

In March 2020, PG&E shared the draft Protocol with SED, the California Department of Technology (CDT), and a third-party consultant (Cognizant) to obtain their feedback. We received feedback on architecture and redundancies, along with monthly stress, load, endurance, and breakpoint testing to ensure stability of the website. PG&E implemented the feedback from Cognizant. Based on feedback from SED and the CDT, no additional recommendations were needed. Following review and concurrence from SED and CDT, PG&E adopted the submitted Protocol, which now serves as PG&E's action plan to ensure that our website maintains necessary bandwidth.

In accordance with the Website Performance Protocol, PG&E tests its websites to verify that it can handle the bandwidth necessary to serve customers, the public, media, and other interested stakeholders, during a PSPS event. We have executed service agreements with third party consultants, (Infosys and Cognizant), to operate and maintain the websites and conduct the outlined performance testing activities respectively. We have secured in-event support from critical vendors, such as AWS, Nexient, Akamai, and ESRI to monitor and troubleshoot any issues that arise and provide primary support during an event.

PG&E has developed a PSPS Call Strategy for use if customer wait times during a PSPS event are exceeding minimum performance expectations. We will consider implementing the PSPS Call Strategy, as needed, to improve call service with minimal wait times. The PSPS Call strategy includes: (1) maintaining full staffing across all four Contact Center Operations, (2) using trained Credit and Billing representatives to handle PSPS calls, (3) using an Interactive Voice Response (IVR) application for customers to look up their address(es) and hear relevant PSPS-related updates with the option to connecting to a live agent, (4) opening messages to set customer expectations about emergency conditions and potential call answer delays and (5) only accepting emergency-related calls (e.g., downed wires, gas leaks, outages and PSPS). We may use this strategy when over 100,000 customers will be affected by an active PSPS event and wait times exceed minimum performance expectations.¹²

3.4 Precise and Accurate Communications

To improve precise and accurate locality information, PG&E has updated its mapping method to assign customer service points to specific geographic parcels (properties) based on county zoning information provided by a third-party vendor. Our website will provide access to these improved parcel-based maps to view affected areas as well as an address look-up tool also based on the improved service point to parcel mapping method.

¹¹ Bi-Weekly Report of PG&E in Compliance with January 30, 2020 Assigned Commissioner's Ruling; July 13, 2020, Section 1A, pp. 3-4

PG&E's PPS notifications will provide specific details about the event, including the date and time of the planned de-energization, address(es) impacted, and estimated time of restoration. PG&E will make all efforts to avoid both false positive¹³ and false negative¹⁴ customer notifications around PPS events. Efforts we are making to avoid false positive and false negative communications are described below.

We expect to avoid false negative notifications (i.e., customer does not receive notification, but is de-energized) due to these efforts:

- **Updating Customer Contact Information:** We expanded efforts to obtain and verify customer contact information for customers. We have used direct mail, outcall campaigns, social media posts, website popups, bill inserts, and monthly emails to subgroups of electric customers, asking them to provide or confirm their contact information. As of June 2020, we have reduced the total number of customers with missing or invalid contact information by 75% (from approximately 68,000 to less than 17,000). We have reduced the number of Medical Baseline customers with missing or invalid contact information by 90% (from approximately 800 customers to 80).
- **Automating Processes to Trace Impacted Circuits from a Meteorological Polygon:** We have developed a process to trace circuits from a PPS meteorological forecast polygon to automatically determine which customer accounts on each circuit will be de-energized in a PPS event.
- **Customer to Transformer Mapping Improvements:** Some notification errors in 2019 were due to inaccurate mapping between distribution transformers and customer accounts. PG&E launched three projects to improve data quality and clean-up efforts to address these mapping issues, to assure that each customer account is accurately mapped to the transformer and circuit that serves it. Two of these three projects are complete and the third is underway.

We expect to avoid false positive notifications (i.e., customer receives notification, but is not de-energized) in scenarios when the weather forecast changes and customers previously communicated to are no in scope for de-energization by sending PPS cancellation notifications before the expected shut-off time.

As required by D.20-05-051, PG&E will enumerate and describe the causes of any false positive and false negative communications in its post PPS event reports.

Additionally, PG&E identifies lessons learned through After Action Report review processes that are conducted after each event and are summarized in PG&E's post event reports.

PG&E maintains a strong focus on implementing continuous improvements to streamline its programs, services, offerings, and operations, and will continue to identify and implement lessons learned to increase the accuracy and effectiveness of its communications and notifications.

¹³ False positive notifications are interpreted to mean customers who were notified that they would be de-energized; however, they were not de-energized, and did not receive a cancellation notification

¹⁴ False negative notifications are interpreted to mean customers who were not notified in advance that they would be de-energized, but were de-energized

3.5 Customer Notification Improvements

PG&E redesigned its customer notifications based on feedback from customer research and notification message testing, as well as feedback received by interested stakeholders (e.g., Center for Accessible Technology). In 2020, PG&E's notifications will provide more information, sooner, and directly to customers by implementing the following changes:

- Re-designing notifications to highlight critical information, including added street/address information, and estimated shutoff and restoration times from the initial contact.
 - Providing this added information upfront is especially important to give customers appropriate time to prepare and take action to make the necessary accommodations for PSPS-related outages.
 - The streamlined messaging also intends to limit traffic to PG&E's call center and/or website to get customers the information they need should they be impacted.
- Providing links in the notifications to resources available for AFN populations, including Medical Baseline customers, which is also a key resource link on PG&E's alert site;
- Improving the customer experience for translated notifications provided to customers in the event language preference is or is not available for the customers; and
- Giving Medical Baseline customer notifications with improved instructions and options to acknowledge notification receipt, to prevent the need for an in-person visit ("door knocks").

Furthermore, to ensure readability of its notifications and website, PG&E tested the reading level of these channels. Using the Flesch–Kincaid Grade Level scale, PG&E's 2020 notifications tested at an average of an 8th grade reading level, and the PSPS emergency website tested at the 7th grade reading level. Providing written copy at lower reading levels improves the ease of readability for customers.

PG&E also tested multiple versions of notifications with customers and finalized text based on customer input and understanding. Thanks to this customer testing effort, we believe that our new PSPS notifications will be more informative and useful for our customers if PSPS events occur this year.

Figure 3. Email Message for “watch” notification



Figure 2. Text Message for “watch” notification

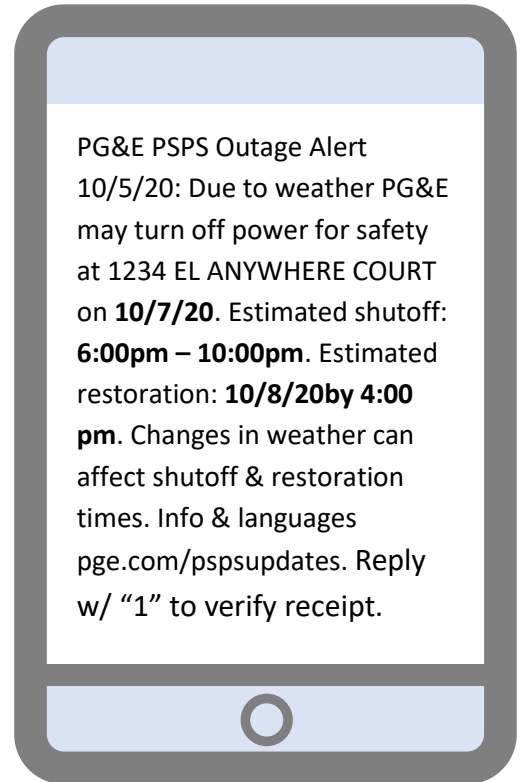


Figure 4. Automated Phone Call for “Watch” Notification

This is PG&E calling with a PSPS outage alert. On 10/5/20, your power may be shut off for safety. To continue in English press 1. **[In-language options to select to listen to message in 6 other languages]**

To replay this message at any time, press #.

Due to current weather forecasts 1234 EL ANYWHERE COURT is currently under a Watch for a Public Safety Power Shutoff. Weather forecasts including high winds and dry conditions, may require us to turn off your power to help prevent a wildfire. ESTIMATED SHUTOFF TIME: 10/7/20 between 6 pm and 10 pm. Shutoff times may be delayed if winds arrive later than forecast. We expect weather to improve by 6 am on 10/8/20. After weather has improved, we will inspect equipment before restoring power. ESTIMATED RESTORATION TIME: 10/8/20 by 4 pm. This restoration time may change depending on weather conditions and equipment damage. We recommend all customers have a plan for an extended outage. We will provide daily updates until the weather risk has passed or power has been restored. This will include a Warning alert if we have determined it is necessary to turn off your power. For planning resources or more information visit pge.com/pspsupdates or call 1-800-743-5002. If you rely on power to operate life-sustaining medical devices or have access and functional needs, additional support may be available. For more information, visit pge.com/specialresources. If this is not the correct phone number for 1234 EL ANYWHERE COURT, press 2. Press # to repeat this message. Thank you. Goodbye.

3.6 CBO and Media Engagement

PG&E continues to build stronger relationships with media and local CBOs to use the voice of these organizations to expand PG&E's messaging to customers, both for PSPS preparedness and event notifications.

3.6.1 Media Engagement

PG&E's media engagement efforts to prepare for the 2020 wildfire season include:

- Maintaining a dedicated team of local media representatives to quickly respond to inquiries from media outlet about wildfire safety work;
- Providing regular updates to the media on PG&E's wildfire progress, including 20 press releases in 2020 on wildfire safety preparedness;
- Providing media advisories to local outlets to raise awareness about each of PG&E's regional open house webinar events;
- Providing two in-language Public Information Officer (PIO) PSPS trainings in Spanish and Chinese;
- In June 2020, conducted a multi-cultural media briefing with partner organizations including, Cal OES, Listos California, Fremont Fire Department, and CFILC. Twenty-one representatives from 19 multi-cultural media outlets participated.
- In July 2020, we engaged with more than 30 multicultural media outlets (including several serving indigenous communities) to launch media/marketing campaigns on wildfire/PSPS preparedness in at least 12 different language segments.

Since January 2020, PG&E has secured 52 in-language news stories on wildfire safety and education.

3.6.2 CBO Engagement

PG&E expanded coordination with CBOs for both PSPS preparedness and event coordination. The following are highlights of PG&E's CBO engagement efforts:

- **CBO PSPS Outreach:** Since the start of 2020, we have offered PSPS-related outreach to over 240 CBOs to share information about PSPS preparedness and seek their input/agreement share this information with their customers during PSPS events. Nearly 200 of those engaged have agreed to relay our information to their customers.
- **Formal CBO Engagement:** We have initiated efforts to develop and secure five service agreements with CBOs to provide in-language communication support before and during PSPS events, including to customers that speak indigenous languages.
- **Affinity Group Preparedness Webinars:** On July 8 and July 13, 2020, PG&E held wildfire safety and PSPS preparedness webinars for representatives of people and communities with access and functional needs. Each webinar had approximately 170 and 260 attendees, collectively representing approximately 100 and 130 organizations, respectively. These attendees represented city, county and tribal government representatives, and a variety of CBOs. The preparedness webinars included subtitles in English, Spanish and Chinese, and an American Sign Language (ASL) interpreter (see Figure 5 below). The presentation summarized PG&E's efforts to mitigate wildfire risk and outlined our plans to, engage with local organizations during events, and provide pre-event and in-event notifications. PG&E presented resources available to customers, including an in-depth review of the

Medical Baseline Program and application process, Community Resource Centers (CRC) plans (including COVID-19 contingencies), funding and incentives for backup power resources through the Self-Generation Incentive Program (SGIP), and the PG&E-funded Disability Disaster Access & Resource Program run by CFILC offering transportation, backup power, hotel and food vouchers.

Figure 5. Image of PG&E's CBO-focused webinar



In January 2020, PG&E hired an external contractor, Nexient, to develop the designs for our new emergency response web site. Their user experience developers drafted multiple versions of site designs, map options, and address lookup tool results screens. We have tested these designs with consumers to ensure that the language is clear, tools are usable, and content is easy to find.

Whenever feasible, PG&E will send event notifications to customers in their preferred languages (if they have shared that preference with us through their account information). We make translated notifications available online to all customers.

If a customer has not indicated a language preference, we send messages out in English with a way to access in-language communication. For example, automated calls offer opening prompts to reach other language options. In SMS text messages, the text copy offers a link to go to the PG&E emergency site to access information in other languages. Emails include links to take the user to many in-language pages on PG&E's emergency web site. PG&E's approach and progress for providing translated outreach and communications is more fully described in its 2020 CWSP Outreach Workplan and Budget, filed on May 15, 2020.

Most PG&E written and web collateral, including wildfire preparedness information, is available upon request in large print and braille., PG&E's website and mobile view have been tested for ADA usability

and accessibility, We provide closed captioning in English, Spanish and Chinese at our CWSP Open House webinars, and ASL translation in most PSPS preparation forums including: :

- Live ASL translator at PG&E’s PPS press conferences
- Live ASL translator at PG&E’s AFN CBO and County Health wildfire and PPS preparedness webinars
- Recorded wildfire and PPS preparedness webinar in ASL with closed captioning posted on pge.com¹⁵
- Recorded message in ASL with event updates and shared on social media

Customers with disabilities can manage their PG&E profile, alerts and notifications to choose their preferred communication preference and language. PG&E uses the email, text, and language preferences under Customer Contact Information to send notifications and alerts to multiple customer designated email addresses and/or phone numbers. Customers who are Deaf, hard of hearing or have a speech disability and use TTY (Teleprinter or) during emergencies can also add TTY notifications as a communication preference).

For PPS event notifications, customers receive calls, text emails, and TTY alerts. Customers who are Deaf or hard of hearing will be able to use the text and email messages, as well as access PG&E messages in American Sign Language made available on social media and PG&E’s website. Customers who are blind or have low vision can sign up to receive automated voice calls, text messages, and/or e-mails, which are accessible for people who use assistive technology, (e.g., screen readers).

PG&E has a process in place to provide meter ID and Circuit IDs to communications providers during events through the PPS Portal.

4 Community Resource Centers

See Appendix B for PG&E’s CRC plan. The plan describes the siting and accessibility of CRC locations, the status of the sites secured to date, and how we determined the resources needed to best serve community members, including external guidance. For example, we included ice at indoor sites following a suggestion from state officials in 2019 PPS events.

PG&E prepared our CRC plan based on local government agency partners and customers feedback received after the 2019 PPS events from. We are actively circulating this plan with additional stakeholders as required in D.20-05-051.¹⁶ In late July 2020 through early August 2020, PG&E shared an overview of the plan at the PPS Regional Working Groups, and at the People with Disabilities and Aging Advisory Council (PWDAAC) on July 29, 2020. While local government agencies have provided input related to CRC locations, others have offered input related to the resources offered, ADA-related recommendations, and suggestions for COVID-related contingency planning.

¹⁵ Currently, the 2019 PPS preparedness webinar is available on pge.com and the 2020 version is being recorded and expected to be available by August 2020.

¹⁶ D. 20-05-051 at Appendix pg. 5

PG&E will consider incorporating those suggestions and requests that can be reasonably implemented during the 2020 wildfire season. We will continue to assess additional feedback and lessons learned to incorporate into future CRC plans.

As described in PG&E's bi-weekly corrective action report,¹⁷ in coordination with local governments and tribes, PG&E has a process in place to pre-identify and prepare CRC sites to quickly open locations when needed during a PSPS event. PG&E uses following four steps to identify and prepare sites to open quickly during PSPS events:





- **Planning and preparation:** In December 2019, PG&E developed a list of sites that were previously identified or requested and prepared for outreach.
- **Outreach:** In January 2020, PG&E asked all 47 counties within our service area, and tribes, to identify approximately five indoor sites for consideration. Some counties have identified more than five sites; other counties have indicated that they do not anticipate needing five sites. PG&E is implementing a similar process with tribes. We do not anticipate being able to offer five sites in every county but wanted to draw a wide net for possible site locations.
- **Continued Engagement in Light of COVID-19:** In Spring 2020, PG&E engaged counties and tribes to discuss changes to the CRC plan due to COVID-19 realities and provide input on indoor and outdoor site locations. In July 2020 and continuing into August, PG&E shared an overview of the plan at the PSPS Regional Working Groups, as well as at the People with Disabilities and Aging Advisory Council (PWDAAC). While local government agencies and tribes have provided input related to the CRC locations, others have provided feedback related to the resources offered, ADA-related recommendations, and suggestions for COVID-related contingency planning. PG&E will continue to incorporate feedback received.
- **Identification and vetting of sites:** Every site suggested for use as a CRC was assessed for accessibility and ADA compliance, generation capabilities, proximity to public transportation and high fire threat districts. Suitable sites pass on to negotiation with owners to secure the rights to use the site. PG&E also confirms the logistics necessary to support each location.
- **Sites finalized:** PG&E provides the governments and tribes with additional information about the final locations selected for CRCs., For the final sites we have undertaken, for reasonable upgrades in order to meet CRC requirements, including ADA accessibility upgrades and/or electric upgrades support temporary back-up generation. We are also arranging staffing and security plans for each location.

While PG&E initially planned to use predominantly hard-sided buildings instead of tents during 2020 events, these plans have changed to address impacts associated with the COVID-19 pandemic. PG&E is now planning to supplement the indoor sites with outdoor Micro CRCs (smaller, open air tents) and Mobile CRCs (vans), and it intends to have execution details and logistics resolved through a coordination process with local governments and tribes. The number of CRC sites to be activated for each county or tribe will depend on the scale of an individual PSPS event. The number of indoor CRC sites that will be ready to use for 2020 PSPS events is dependent on the pace at which local economies

¹⁷ Bi-Weekly Report of PG&E in Compliance with January 30, 2020 Assigned Commissioner's Ruling; July 13, 2020, Section 2.k., pp. 32 - 33

are able to recover and address public health safety risks from the COVID-19 pandemic. Below is an image that depicts the CRC types and approaches used in the event physical distancing is required.

Figure 6. CRC Types

				
TYPE	INDOOR	TENT	MICRO	MOBILE
DESCRIPTION	Indoor site (i.e. a community center)	Tent with soft-sided walls at an outdoor site	Smaller, open air tent at outdoor site	Sprinter van at outdoor site
IF PHYSICAL DISTANCING REQUIRED	Metering inside and physical distancing	N/A; due to size limits of tent, will not use	Grab and Go Bags	

As of July 30, 2020, PG&E has 24 Indoor CRC locations that are “event ready” and 39 sites currently in construction for upgrades related to ADA compliance or electrical retrofits to connect to a backup generator for PSPS use. We have also secured 202 outdoor locations that are event ready, and we have executed contracts for event-related services to staff all indoor and outdoor CRC locations as needed during events.

PG&E’s planned CRC sites are generally locations known to the public. These include community centers, libraries, schools, churches, senior centers, and other publicly known facilities.

Note that outdoor CRCs will be set up in local parking lots that are known to the public. PG&E will share the location of the sites via its event maps and website, social media updates, and press releases.

In 2020, PG&E bolstered its efforts to ensure ADA compliance and accessible paths of travel at CRCs. All CRC sites will be ADA accessible and provide ADA accessible restrooms and hand-washing stations.

If a site was recommended as an ideal location by a local government or tribe, but does not initially meet ADA compliance needs, we are making reasonable upgrades to those CRC sites to meet ADA requirements. As of July 30, 2020, PG&E has verified that 100 percent of the 24 secured, event-ready Indoor CRC sites are ADA compliant.

Examples of ADA-related upgrades include:

- Repaving portions of parking lots
- Installing handrails along building entrances
- Installing ADA parking signs
- Reducing excessive slopes around building

Additionally, information cards for access to translation support in over 200 languages and Braille will be available at each CRC site. Cards will also be available in Braille. Furthermore, PG&E confirms that each CRC facility has at least two egress (exit) routes.

See Section 4.1 for information on COVID-19 considerations.

The resources and services provided at the different CRC types vary and are outlined in Table 2 below.

Table 2. Resources Offered by CRC Type

Resources	Indoor Sites	Temporary Tented Sites	Micro CRCs	Mobile CRCs
ADA Accessible Restrooms and Hand-Washing Stations	X	X	X	X
Security Personnel	X	X	X	X
Device Charging (capable of powering medical devices)	X	X	X*	X*
Wi-Fi Service	X	X	X	X
Bottled Water	X	X	X	X
Non-Perishable Snacks	X	X	X	X
Heating and Cooling	X	X		
Coffee and Tea	X	X		
Tables and Chairs	X	X		
Bagged Ice	X	X		
Blankets	X	X		
Wind/Weather Resistant	X	Limited		

* Onsite charging for medical devices – will provide device chargers to all customers

The Micro CRCs and Mobile CRCs will be deployed when an indoor site is not available, primarily as a contingency plan when physical distancing guidelines are in place due to COVID-19 and/or other public health protocols. Micro CRCs and Mobile CRCs will make tables and chairs available only for those members of the public who need to charge medical devices, because these locations are designed to provide quick service and to keep people moving and abiding by physical distancing requirements (e.g., provide “grab and go” bags containing a device charger, water, snacks and information cards). Customers who need to charge medical devices can remain on-site for charging.

As described in PG&E’s CRC plan (see Appendix B) , and in contracts with site owners, the standard hours of operations for CRCs will be 8:00 am to 10:00 pm.¹⁸ During PSPS events, PG&E will confirm operating hours with local governments, tribes and site owners to implement any operational changes for public health or safety reasons (e.g., local curfew, inability to access, safety issues).

4.1 COVID-19 Considerations

PG&E adapted its approach to CRCs to reflect appropriate COVID-19 public health considerations. 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

¹⁸Per D.20-05-051 at Appendix pg. 6

classified 16 Group 1 counties (highest PSPS risk), 16 Group 2 counties (mid PSPS-risk) and 15 Group 3 counties (lowest PSPS risk). For more information on prioritization, please see the CRC Prioritization table in Appendix B.

PG&E is developing contingency plans that follow state and county guidelines to fight COVID-19, including supplementing the indoor sites with outdoor Micro CRCs (smaller, open-air tents) and Mobile CRCs (e.g., vans), in the event of physical distancing. PG&E will also adhere to occupancy guidelines during COVID-19.

Additionally, the following measures will be in place at CRC locations to reflect appropriate COVID-19 health considerations and state and county guidelines:

- Facial coverings, physical distancing and metering/limits on the number of customers are required.
- Temperature checks are administered before entry into indoor sites.
- At outdoor sites, supplies will be handed out so customers can “grab and go”, and seating will be available for medical equipment charging only.
- Surfaces are regularly sanitized.
- For the health and safety of the community, asking customers not to visit a center if they are sick with a fever, cough, sore throat, or runny nose.

4.1.1 Portable Battery (PBP) Pilot Program

PG&E understands that visiting a CRC during the COVID pandemic may prove infeasible for many of its vulnerable customers. PG&E’s Portable Battery Pilot (PBP) Program is another way PG&E is supporting customers during the COVID pandemic. The Program, described in more detail in Section 7.8 and in the appended CRC plan, provides portable backup battery solution to low-income, medically vulnerable customers in High Fire Threat Districts (HFTD) throughout PG&E’s service area, to aid these customers’ resiliency during PSPS events. The Program aims to provide sufficient power to charge critical electronic devices (i.e., cell phones or tablet computers) and operate the customer’s medical devices in the event of a PSPS. These portable batteries help reduce the risk of COVID exposure to for some of PG&E’s most vulnerable customers, as they may have otherwise gone to a CRC for support.

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

PG&E has established a goal of making future PSPS events shorter in length. We aim to restore customers as soon as possible and within 24 hours from termination of the de-energization event, with an internal target of restoring 98% of customers within 12-daylight hours after the weather event has cleared. We have made numerous changes to expedite restoration time after the weather event has cleared:

- Nearly doubling dedicated helicopters available for aerial patrols. By September 1, 2020, PG&E will be using 65 dedicated helicopters – an increase from 35 dedicated helicopters in 2019.
- Increasing field patrol resources with additional qualified workers

- Commission two fixed-wing aircraft with MX-15 cameras and infrared technology for day-and-night-time transmission line patrols
- Implementing new standards and procedures to ensure a consistent, repeatable quality process to improve operational performance for managing PSPS Estimated Time of Restoration (ETOR) and notifying to customers about upcoming ETOR.
- Conducting helicopter circuit patrols for 2020 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. This pre-event information collection will improve our restoration planning capabilities, optimize resource allocation for faster restoration, and facilitate more accurate Estimated Time of Restoration (ETOR) forecasting.
- Use the pre-event flights to increase the number of trained aerial patrol personnel.
- Conducting PSPS field exercises in all regions to improve PSPS operational readiness and team skills and rehearse restoration response readiness.

For any circuits that require more than 24 hours to restore, PG&E will explain in a post-event report why circuits or portions thereof could not be restored within 24 hours. The following most likely reasons for extending restoration times are:

- A large size of the event(s) and possible personnel limitations due to unforeseen impacts
- Possible reduction of available qualified electrical worker (QEW)/patrol resources if COVID-19 compromises patrol speed, pilot availability and overall restoration efforts.

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. Operationalizing one-hour notifications before re-energizing customers poses significant challenges that we have not yet solved. As described in our opening and reply comments to the PSPS Phase 2 Proposed Decision, providing notice one hour prior to re-energization could delay the restoration process and ultimately delay how quickly some customers can be reenergized. This is because restoration time is influenced by factors such as damage found during safety patrols and the associated operational challenge of performing sequenced circuit restoration while repairing damage found as quickly as possible. Re-energization typically occurs at the segment level of the circuits to restore portions of circuits as soon as each is verified as safe to re-energize, rather than waiting until the full circuit has been determined to be safe. Each segment must be confirmed as undamaged and safe-to-energize before we can notify the customer of eminent re-energization, but once that verification has occurred, re-energization can proceed quickly. However, because the extent and location of potential damages are unknown, it is infeasible to specify an exact segment re-energization sequence and deliver accurate imminent one-hour notification. If the one-hour lead time re-energization notification is strictly enforced, that may require that we delay restoration in order to satisfy the one-hour advance requirement, rather than restoring power as quickly as possible.

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. This is more fully described below.

Notification to Public Safety Partner Agencies

All automated notifications to Public Safety Partners will include the estimated time of restoration. These notifications will be sent daily starting approximately three days prior to de-energization through restoration.

Additionally, agencies will have access to the PSPS Portal, which will include a situation report with estimated times of restoration predicted for each impacted region. These restoration times will be updated throughout the event. We are also exploring the feasibility of providing a notification one hour before re-energization.

Notifications to Transmission-Level Customers

PG&E's Grid Control Center (GCC) operators will call our transmission-level customers before and during de-energization and re-energization to keep them informed about PSPS scope and timing.

Notification to Critical Facilities and All Other Impacted Customers

PG&E has made significant improvements to its customer notification processes in 2020. We plan to provide expected outage start and finish times at the time of first notification to customers and update relevant impact times throughout the event when appropriate and feasible. The following are three scenarios where the customers' ETORs may be updated:

1. During the PSPS Weather Event: Customers received ETOR based on the forecasted timing of the end of the weather event and PG&E's goal to restore power within 12 daylight hours of weather clearing.
2. Weather Event is Over and PG&E Begins Patrolling: Customers receive an updated ETOR based on field intelligence, which may be sooner or later than original ETOR provided during the PSPS Weather Event.
3. Weather Event is Over and Damage Found During Patrols of Equipment: Customers receive an updated ETOR accounting for repair time.

Note customers will only receive an updated ETOR if it has changed from the original ETOR they received to limit notification fatigue. We will provide daily updates to customers if the ETOR extends into the next day. However, PG&E follows Telephone Consumer Protection Act (TCPA) guidelines and avoids sending notifications overnight during curfew hours when possible.¹⁹ This means if customers (excluding telecommunications providers) are restored in the middle of the night, they may not receive an updated ETOR notification depending on the timing of various factors in the event (e.g., time weather clears, restoration is expected).

¹⁹ Curfew hours are between 9pm and 8am

6 Transportation, Communications, and Water System

6.1 Critical Facility and Critical Infrastructure Identification

PG&E is committed to coordinating with critical facilities, such as hospitals, fuel suppliers, telecommunications providers, and transportation agencies, among others, to further understand and more effectively plan for the impacts of a PSPS on the ability to safely operate these facilities.

PG&E has developed and validated its list of critical facilities through coordination with counties, tribal governments, and Cal OES ahead of PSPS events. That effort is a continual, ongoing process. The first step involves an internal validation process to identify facilities that should be added to the list.

Then PG&E engages governments and tribes to share the initial critical facilities lists (while complying with customer privacy laws and regulations) to gain their input on the facilities listed. Beginning in May 2020, PG&E contacted all 327 cities, counties, and tribes in its service area to confirm and verify the critical facilities within their respective jurisdictions and suggest any additional facilities that they recommend PG&E should add to its list. As a result of this outreach, 42 agencies provided input and a total of 175 facilities were updated to a critical designation based on the feedback received.²⁰ PG&E updated its critical facilities list with agency-identified facilities as appropriate (e.g., facilities provided aligned with CPUC definitions, feedback was able to be matched to an electric service account, etc.). The critical facilities list is uploaded to the PSPS portal.

To support critical facilities, PG&E has requested that critical facility providers provide updated contact information for each location, a 24 hour contact, and requested information regarding back-up generation capabilities.²¹ PG&E staff have shared insights regarding areas more likely to be subject to a PSPS based on grid configuration and weather risk, and provided information about backup generation and resources for resiliency planning.

As one example of PG&E's engagement with critical service providers, in partnership with EPA Region 9, PG&E supported two water agency resiliency workshops in early 2020, with a focus on small and tribal water systems. After those sessions, PG&E produced quick reference guides and resources in support of PSPS preparedness. We have also partnered with Association of California Water Utilities and the other IOUs to provide updates on PSPS and resources available for water agency resiliency planning. And several water agencies have participated in our full scale PSPS Exercises as players to support their readiness and help us improve critical customer communication and coordination.

6.2 Electric Vehicle (EV) Charging Network Support

6.2.1 EV Feasibility Study

D.20-05-051 requires each IOU to "implement a pilot project to investigate feasibility of mobile and deployable electric vehicle (EV) Level 3 fast charging for areas affected by de-energization events."²²

²⁰ Agencies were asked to provide feedback by June 26, 2020. The outcomes reflect responses received prior to that deadline. PG&E has and will continue to accept additional Critical Facilities feedback from agencies on a rolling basis.

²¹ PG&E has reached out to critical facilities via account managers, outbound call campaigns, and finally through a letter and email campaign.

²² D.20-05-051 at Appendix pg. 7

PG&E has begun preliminary outreach and research to understand the technologies and options that might be available to provide mobile and deployable Level 3 fast charging for areas affected by PSPS events. PG&E anticipates issuing a request for information (RFI) and/or a request for proposals (RFP) to further investigate technological and financial feasibility of options by the end of 2020.

6.2.2 EV Charging Network Resiliency Plan

PG&E's plan to reinforce key charging locations with backup generation is provided as an attachment to this Progress Report (see **Error! Reference source not found.**). The plan addresses the following elements:

- An overview of Public Level 2 and Level 3 chargers located in Tier 2 and Tier 3 HFTDs and those which have been previously impacted by PSPS events in PG&E service territory
- An estimate of light duty electric vehicles (EVs) located in Tier 2 and Tier 3 HFTDs
- EV charging infrastructure that will benefit from existing PG&E PSPS mitigation efforts, such as chargers located within Microgrids;
- Preliminary overview of technology options that require further study to determine feasibility and cost-effectiveness;
- Potential barriers initially identified through conversations with EVSPs;
- Next steps PG&E will take to further evaluate options, including through potential pilot projects; and
- Steps that EVSPs or other customers can undertake to install backup generation resources on their own volition.

6.2.3 Accessibility of EV Charging Locations During PSPS Events

Since the issuance of D.20-05-051, PG&E has identified and compiled reputable data sources for publicly available Level 2 and Level 3 EV chargers. This information will be used in the upcoming wildfire season as described below.

During a PSPS event, all customers are directed to www.pge.com/pspsupdates. The PSPS updates page will allow a customer to enter their address to determine if that location will be de-energized by that PSPS event. It will also ask whether the customer wants to find a CRC or an EV charging station near them,²³ and link to an event-specific page with information on which EV charging resources are expected to be available in and around the PSPS area. The EV charging page will be confirmed 24 hours before each event. The EV resource page will show a table of publicly available Level 2 and Level 3 EV chargers, highlighting EV chargers located within microgrids or areas receiving power from temporary generation efforts. The EV resource page will link to EV service provider (e.g., ChargePoint, Electrify America, EVgo, Tesla) websites for real-time availability updates.

7 Medical Baseline and Access and Functional Needs Populations

On June 1, 2020, PG&E submitted its 2020 PSPS Access and Functional Needs (AFN) Plan ("PSPS AFN Plan") and intends to provide quarterly updates on September 1 and December 1, 2020. PG&E will submit an updated annual AFN plan each following year on January 31, with quarterly updates

²³ Note, the CRC pages will also link customers to the EV resources page

thereafter on April 30, July 31 and October 31 of each year. PG&E's approaches to fulfill the AFN and Medical Baseline requirements from D.20-05-051 are described in further detail below.

To date, PG&E's efforts to grow Medical Baseline program participation have brought in 25,000 additional Medical Baseline customer applications, all of which have been converted into full Medical Baseline program enrollees. This brings PG&E's Medical Baseline enrollments up to 220,000 customers – up 13% within two months – to the highest enrollment level ever. These successful customer identification, outreach and enrollment activities are described below.

We have modified our PSPS program efforts for MBL customers as well.

7.1 PG&E Support for Customers with Access and Functional Needs

PG&E's support for seniors and customers with disabilities and access and functional needs is focused on three main pillars:

1. **Emergency Preparedness Outreach and Education:** We provide this outreach directly and through pre-existing channels from local organizations and agencies. We seek to increase awareness and participation in the Medical Baseline Program among customers in our High Fire Threat District (HFTD) areas.
2. **Programs and Services for PSPS-related outages:** This includes access and resources to continuous power solutions, and access to transportation, hotel vouchers and food replacement, and other support.
3. **Timely and Accurate Event Notifications:** This includes providing succinct, relevant, and clear event information with translated communications for customers with limited English Proficiency in languages that are prevalent in PG&E's service territory.

PG&E's AFN programs and communications incorporate feedback from representatives and customers with access and functional needs.

7.2 AFN-Focused Customer Research

As described in its PSPS AFN plan filed on June 1, 2020,²⁴ PG&E completed research in late 2019 and early 2020 focusing on how we can improve awareness and adoption of the MBL Program. This research included interviews with existing and prospective customers in the Medical Baseline Program, and health care practitioners. We also surveyed to over 1,000 current, former and prospective MBL customers to measure their experiences, awareness, and motivations to sign up for the MBL Program, as well as their experiences leading up to, during, and after PSPS events. PG&E found that once enrolled in the Program, customers are generally satisfied, but there remain opportunities to drive program awareness and improve enrollment. We have directly addressed these findings with propensity modeling and the subsequent outreach campaign, including an affinity outreach strategy that leverages health care industry members (e.g., health care practitioners, medical device suppliers, social services).

²⁴ pg. 4 - 6

7.3 Medical Baseline Program Participation

Currently, PG&E has approximately 220,000 customers enrolled in its MBL Program. Approximately 3,000 additional customers are tenants of master metered accounts that are enrolled in the MBL Program. Over 23,000 of our MBL customers are physically located in a in Tier 2 or Tier 3 HFTDs and over 50,000 more MBL customers may be impacted by a PSPS event (e.g. served by <115kV lines that traverse the Tier 2 and Tier 3 HFTDs).

PG&E has planned news way to increase enrollment as described below.

7.4 Medical Baseline Program Propensity Model for Target Marketing

As described in PG&E's 2020 AFN plan,²⁵ PG&E developed and used a new propensity model to identify residential customers with the highest likelihood to qualify for, enroll and participate in the MBL Program. To develop this model, over 300 independent variables were examined and iteratively tested against the population of Medical Baseline customers to find a shortlist of "qualified predictors" for MBL enrollment. The variables tested included hourly usage, payment patterns, call patterns / use of PG&E contact center services, PG&E program participation, census data, and customers who self-identify as disabled or vulnerable when being contacted in instances of disconnections for non-payment or receive utility communications in a non-standard format.

The validated model has an estimated 72% prediction accuracy. We have used the model results to classify customers into ten propensity deciles²⁶ and target the highest-propensity customers to encourage individuals with qualifying medical needs to enroll in the MBL program. Beginning in April 2020, PG&E began an acquisition-focused marketing campaign, using broad-reaching paid digital advertising paired with direct-to-customer email and direct mail, as described below.

7.5 Access and Functional Needs Community 2020 Outreach

On June 1, 2020, PG&E filed its Access and Functional Needs Community Outreach Plan.²⁷ The Plan provides specific details on PG&E's efforts to support its customers and communities with access and functional needs during PSPS events. We are encouraging AFN customers to update their contact information, apply to the Medical Baseline Program if not already enrolled, and we are sharing program resources, such as PG&E's Disability Disaster Access and Resources Program and the Self-Generation Incentive Program (SGIP) offerings.

In Q2 2020, PG&E launched a new Medical Baseline customer enrollment acquisition campaign with a new online Medical Baseline application form. The new form eases the application process for customers.²⁸ To identify additional eligible customers who are not already in the Medical Baseline program that, we used the new propensity model to identify potentially qualifying customers and

²⁵ PG&E 2020 PSPS AFN Plan, pg. 16

²⁶ The top decile (1) contains 10% of the population most likely to be eligible for the program and the bottom decile (10) contains 10% of the population least likely to be eligible, based on the model scores

²⁷ For a comprehensive understanding of PG&E's AFN outreach strategies, refer to the Outreach Plan filed June 1, 2020

²⁸ www.pge.com/medicalbaseline

encourage their enrollment described in section 7.4 and in PG&E's 2020 AFN plan.²⁹ Below are a few highlights regarding the Medical Baseline acquisition campaign:

- **Search Engine Marketing:** Beginning in April 2020, PG&E launched search engine marketing, which has delivered over 5.2 million impressions and over 705,000 clicks. This paid search campaign includes both English and Spanish advertisements and is planned to continue through September 2020, using traditional search targeted branded keywords, and Gmail Ads, which are delivered to Gmail inboxes.
- **Display Advertising:** Beginning in early May 2020, PG&E added digital media display as another tactic in the Medical Baseline acquisition campaign. To-date, display has delivered over 19.6 million impressions and over 19,000 clicks. Display is also serving ads in both English and Spanish and is planned to continue through September 2020.
- **Direct to Customer Letters:** On June 19, 2020, PG&E sent 840,000 letters with a program application and pre-paid return envelope to prospective Medical Baseline customers who were determined to be the top 40% most likely to be eligible based on propensity model deciles 1 – 4. The letter included program information, translated into 12 languages.
- **Direct to Customer Emails:**
 - On June 20, 2020 PG&E sent almost 1.4 million emails to prospective customers to the top 70% of customers projected to be eligible (propensity model deciles 1 – 7). The email was re-sent one week later, to 940,000 customers who that did not open the first email.
 - On June 25, 2020, PG&E sent a second safety-focused, residential email to 3.3 million customers that included a promotional message about the Medical Baseline program.
- **Customer Bill Inserts:** On June 1, 2020, PG&E included a Medical Baseline bill insert in all customers' bill packages and included a Medical Baseline promotional message in its residential email newsletter sent to 3.3 million customers.
- **CARE Contractor Trainings:** In April 2020, PG&E hosted 3 webinars to encourage all CARE Outreach Contractors to raise awareness of the Medical Baseline Program to their clientele. From these sessions, 13 partners requested and received approximately 2,000 Medical Baseline Program fact sheets to be used in their outreach.

Since launching the Medical Baseline Program enrollment acquisition campaign, creating the online application, and removing the requirement of the medical practitioners' signature,³⁰ PG&E has received over 25,000 applications in less than two months. This is an increase in participation by approximately 13% (from ~195,000 customers to ~220,000), which is the highest enrollment in the program to date,

²⁹ PG&E 2020 PSPS AFN Plan at pg. 16

³⁰ In light of the COVID-19 pandemic, shelter-in-place requirements and customers' limited access to medical practitioners, PG&E made significant revisions to its Medical Baseline Program requirements for the coming year. On May 1, 2020, PG&E filed in Advice Letter 4244-G/5816-E (and supplemented with two additional Advice Letters Advice 4244-G-A/5816-E-A and Advice 4244-G-B/5816-E-B), which included the following modifications to the Medical Baseline Program: (1) Allowing customers to self-certify their eligibility to enroll in the Medical Baseline Program without a signature from a qualified medical professional; (2) Suspending all customer removals from the Medical Baseline Program; and (3) No longer sending forms to customers that require them to re-certify for the Medical Baseline Program through a doctor or other eligible medical professional.

thus demonstrating the effectiveness of PG&E’s approaches to drive adoption of the medical baseline program prior to the 2020 wildfire season.

PG&E has added self-identified vulnerable, vulnerable senior, and disabled customers to our medical baseline outreach efforts. We have included these customers in our July 30, 2020 PSPS preparedness brochure mailings and will include them in future AFN outreach regarding PSPS.

7.6 Stakeholder Input on Assistance for Current and Potential Medical Baseline Customers

PG&E has asked numerous partners about what assistance current and potentially eligible Medical Baseline customers need during PSPS events Table 3 summarizes the stakeholder groups or forums that provided feedback, and examples of the suggestions that were implemented or are being assessed for future implementation by PG&E.

Table 3. Summary of Stakeholder Input on Assistance for Current and Potential Medical Baseline Customers

Stakeholder Group	Date of Meeting(s) and/or Feedback Provided in 2020	Current or Prospective Medical Baseline Customer Assistance Suggestions
People with Disabilities and Aging Council (PWDAAC)	4/30, 5/29, 6/26, 7/31	<ul style="list-style-type: none"> • Revise PG&E’s vanity URL from pge.com/specialresources to pge.com/disabilityandaging • Refer to population as “people with disabilities and aging adults” or “individuals who rely on power for medical and independent living needs,” rather than “vulnerable” • Ensure mobile website is ADA tested/screen reader friendly for visually impaired • Record notifications in ASL to share online, in social media and with CBOs / media to circulate • Develop informational videos to supplement open house webinars and broadcast in educational TV programs, which can be viewed in closed captioning • Consider a podcast for individuals who utilize assistive technology for information
Statewide AFN Council	6/15, 6/18, 7/24	<ul style="list-style-type: none"> • Provide more tools and training for utility field personnel to engage with people with disabilities during public encounters • Educate call center representatives to direct customers to 211 for community specific resources during and after an emergency or PSPS event • Provide food replacement following a PSPS event • Consider providing fuel for generators during a PSPS event • Engage with California Association of Health Plans and Department of Managed Care to encourage patient assistance obtaining backup power for medical needs
Local Government Advisory Councils and Working Groups / Listening Sessions with Agencies	7/27-7/29	<ul style="list-style-type: none"> • Request for input on customer support and resources, including assistance needed for current and potentially eligible medical baseline customers

		<ul style="list-style-type: none"> Request for PG&E to host PSPS preparedness trainings with healthcare leads who assist current and potential MBL customers
Customer Collaboration Sessions	January, April and May 2020	<ul style="list-style-type: none"> Provide shared community power sources / short-term rentals of equipment Provide web tools to create customized preparation checklists for personalized, specific needs Create short, educational content that explains why PSPS events need to happen and acknowledge the sacrifices customers are making
Current and Prospective Medical Baseline Customer Research	December 2019 and January 2020	<ul style="list-style-type: none"> Use new, optimal partners to promote the program and encourage enrollment through health service providers
Low Income Home Energy Assessment Program (LIHEAP) Partners	April 2020	<ul style="list-style-type: none"> Support for outreach to all low-income MBL customers regarding emergency preparedness Evaluate customer’s medical device power requirements to determine if a portable battery is a suitable back-up power option Make referrals to other organizations that offer hotel, transportation and food if a battery is not a good solution.

7.7 Confidential Data Sharing with Local Governments and Tribes During PSPS Events

PG&E will provide lists of potentially impacted Medical Baseline customers and critical facilities to local and tribal governments on a confidential basis, upon request during events. PG&E will share this information using the updated PSPS portal. Access to the information requires the execution of a non-disclosure agreement when accessing the PG&E PPS Portal, and files are marked as confidential. PG&E will also provide the status of Medical Baseline customer notifications.

PG&E uses its secure PPS data transfer portal to share critical facilities information to local jurisdictions and tribes for advanced planning purposes, outside the context of a specific PPS event (as described in PG&E’s Bi-Weekly Report³¹). PG&E will continue to work with local governments and tribes to execute non-disclosure agreements for this information.

7.8 Programs and Services for PPS-related Outages

In 2020, PG&E created its Portable Battery Pilot (PBP) Program in response to feedback received from input from stakeholders in the AFN community and customers impacted by PPS events. The PBP Program leverages CBOs to work with customers to assess their energy needs for critical medical equipment and the overall preparedness for a PPS event. The Program will provide a fully subsidized portable backup battery solution to low-income, medically vulnerable customers in High Fire Threat Districts (HFTD) throughout PG&E’s service area, to aid these customers’ resiliency during PPS events.

³¹ Bi-Weekly Report of Pacific Gas and Electric Company in Compliance with January 30, 2020 Assigned Commissioner’s Ruling

The Program aims to provide sufficient power to charge critical electronic devices (i.e., cell phones or tablet computers) and operate the customer’s medical devices in the event of a PSPS.

The Program leverages the Low-Income Home Energy Assistance Program (LIHEAP) and the Energy Savings Assistance (ESA) network to provide portable backup batteries to eligible customers. The Program offers two models for battery deployment, which are used at the discretion of the CBO in consultation with PG&E – 1) customer battery ownership, where the LIHEAP CBO provides the battery to eligible customers with no return date; or 2) CBO battery ownership, where the CBO provides the battery to the customer for a set amount of time, which could be the duration of the peak wildfire season. The battery is then returned to the CBO for redeployment.³² This flexible program model allows PG&E to expand the reach of its Portable Battery Pilot Program, and ensure the Program supports those vulnerable customers that need it the most. Both Program models leverage the same implementation strategy, fashioned after PG&E’s ESA direct install approach. Program offerings include outreach, an assessment of the customer’s energy needs for medical devices, an assessment of the household’s overall preparedness for a PSPS event, and the deployment of a right-sized battery for prioritized customers. Customer prioritization is at the discretion of the CBO in consultation with PG&E. This approach provides a simple, streamlined customer experience with no upfront costs for the customer.

PG&E plans to launch outreach in August 2020 and deliver more than 3,000 batteries to eligible customers in 2020. PG&E plans to extend the Program through 2023.

The PBP Program CBOs will coordinate efforts with the California Department of Community Service and Development’s Severe Weather Energy Assistance and Transportation Services (SWEATS) PSPS Pilot,³³ which allows even more customers to access important resiliency services. Additionally, this Program builds on the valuable experience PG&E gained from the CFILC Disability Disaster Access and Resources Program pilot launched in 2019. PG&E customers with medical and independent living needs will continue to have access to the CFILC Disability Disaster Access and Resource Program in 2020, as described in Section 3.1.3. This Program offers an additional 800 portable battery units to be deployed in 2020. PG&E will continue to coordinate with other community resources and CBOs to build their capacity to best support vulnerable customers during PSPS events.

PG&E will seek customer and stakeholder feedback on the PBP Program to identify continuous improvement opportunities.

8 Transparency

PG&E will continue to submit post-event reports to the CPUC following future PSPS events meeting the reporting requirements outlined in ESRB-8, D. 19-05-042, and D. 20-05-051.

On a monthly basis, PG&E will provide updated versions of the attached *PG&E_CWSP Wildfire Mitigation Plan Progress Update* pdf through a link prominently displayed from the main

³² The LIHEAP provider will determine the appropriate model based on the customer’s unique circumstances. For example, if a customer resides in a remote area without access to CRCs, microgrids and other support services it is likely the LIHEAP provider will select the “customer ownership” model. Conversely, if the customer lives closer to support services, the LIHEAP provider may select the “seasonal loaner” model.

³³ <https://www.csd.ca.gov/Shared%20Documents/2021-LIHEAP-Draft-State-Plan-ADA.pdf>

www.pge.com/wildfiresafety landing page, titled “See Our Progress”, under the Community Wildfire Safety Program Resources section. The current 2020 Q2 Update version of the *PG&E_CWSP Wildfire Mitigation Plan Progress Update* was posted on 07/21/2020 and includes completion dates for reference. (See Appendix D)

PG&E 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 in our 2021 WMP and make that information available and easily accessible on our public website.

9 Definitions

In accordance with the requirement in D.20-05-051 to include new entities in its critical facilities designations,³⁴ PG&E included public-safety answering points that serve 911 emergency call services and the transportation sector in its definition and identification of critical facilities. Currently, PG&E serves approximately 1,800 emergency-related sites, including police and fire stations and 911 call centers. PG&E has identified and designated approximately 1,100 major transportation-related service points as critical facilities.

As described in PG&E’s bi-weekly corrective action report,³⁵ PG&E has an internal process to identify and designate locations as a critical facility. First, PG&E uses customer account descriptors to identify critical facilities using repeatable Structured Query Language (SQL) code. Then PG&E assigns account representatives to review and approve those critical designations. Finally, PG&E’s critical facilities governance committee reviews and approves the locations on a regular cadence. Once a year, PG&E invites local governments and tribal agencies to review and/or add critical facilities designations within their jurisdiction, as described in Section 6.

³⁴ D.20-05-051, Appendix A pg. 9

³⁵ Bi-Weekly Report of PG&E in Compliance with January 30, 2020 Assigned Commissioner's Ruling; July 13, 2020, pg. 27 - 28

Appendix A – Regional Working Group Participant Invitation List

Table 4 below includes the list of agencies initially invited to PG&E’s regional working groups. Note some organizations are repeated because we invited multiple stakeholders from these entities.

Table 4. Participants Initially Invited to Regional Working Group

REGION	ORGANIZATION TYPE	AGENCY
North Coast	Communications and Water Service Providers	County of Lake Water
North Coast	Communications and Water Service Providers	Lake County
North Coast	Communications and Water Service Providers	City of Napa Water
North Coast	Communications and Water Service Providers	Solano Irrigation District
North Coast	Communications and Water Service Providers	Sonoma Water
North Coast	Communications and Water Service Providers	American Water Works Service Co.
North Coast	Communications and Water Service Providers	Mediacom
North Coast	Communications and Water Service Providers	US Cellular
North Coast	Community Choice Aggregators	Redwood Coast Energy Authority
North Coast	Community Choice Aggregators	Sonoma Clean Power
North Coast	Community Choice Aggregators	Valley Clean Energy
North Coast	Electric POU	City of Ukiah
North Coast	Electric POU	Healdsburg Electric Utility
North Coast	Public Safety Partners	Napa County Fire
North Coast	Public Safety Partners	Woodland Fire (Chief)
North Coast	Representatives of AFN	Redwood Coast Regional Center
North Coast	Representatives of AFN	Health & Human Service Director
North Coast	Representatives of AFN	Lake County DSS
North Coast	Representatives of AFN	Disability Services & Legal Center
North Coast	Representatives of AFN	North Coast Opportunities
North Coast	Representatives of AFN	Resources for Independent Living
North Coast	Representatives of AFN	Independent Living Resources of Solano & Contra Costa Counties
North Coast	Representatives of AFN	Sonoma County Human Services
North Coast	Representatives of AFN	North Bay Regional Center
North Coast	Tribal and Local Government Entities	Yurok Tribe - CEO
North Coast	Tribal and Local Government Entities	Lake County Public Services
North Coast	Tribal and Local Government Entities	Fort Bragg Public Works Director
North Coast	Tribal and Local Government Entities	Public Works Director
North Coast	Tribal and Local Government Entities	Emergency Management
North Coast	Tribal and Local Government Entities	Santa Rosa PW Director
Northeast	Communications and Water Service Providers	California Water Service Company
Northeast	Communications and Water Service Providers	Del Oro Water
Northeast	Communications and Water Service Providers	El Dorado Irrigation District
Northeast	Communications and Water Service Providers	Placer County Water Agency
Northeast	Communications and Water Service Providers	Burney Water District
Northeast	Communications and Water Service Providers	Tehama-Colusa Canal Authority
Northeast	Communications and Water Service Providers	Amador Water Agency
Northeast	Communications and Water Service Providers	Lake Alpine Water District

REGION	ORGANIZATION TYPE	AGENCY
Northeast	Communications and Water Service Providers	Volcano Communications
Northeast	Communications and Water Service Providers	Wave Broadband
Northeast	Communications and Water Service Providers	Frontier Communications
Northeast	Community Choice Aggregators	Pioneer Community Energy
Northeast	Electric POUs	California large energy consumers association (CLECA)
Northeast	Electric POUs	City of Roseville
Northeast	Electric POUs	Gridley Electric
Northeast	Public Safety Partners	Office of Emergency Services
Northeast	Public Safety Partners	Office of Emergency Services
Northeast	Public Safety Partners	Office of Emergency Services
Northeast	Public Safety Partners	Amador County Public Health
Northeast	Representatives of AFN	Disability Action Center (DAC)
Northeast	Representatives of AFN	Center for Independent Living (FREED)
Northeast	Representatives of AFN	Far Northern Regional Center
Northeast	Small Multi-jurisdictional Electric Utilities	Northern California Power Agency
Northeast	Tribal and Local Government Entities	Auburn Rancheria
Northeast	Tribal and Local Government Entities	Enterprise Rancheria
Northeast	Tribal and Local Government Entities	Amador County
Northeast	Tribal and Local Government Entities	City of Jackson
Northeast	Tribal and Local Government Entities	Tehama County
Northeast	Tribal and Local Government Entities	Butte County
Northeast	Tribal and Local Government Entities	Lassen County
Northeast	Tribal and Local Government Entities	City of Anderson
Northeast	Tribal and Local Government Entities	Shelby Boston
Bay Area	Communications and Water Service Providers	East Bay MUD
Bay Area	Communications and Water Service Providers	Contra Costa Water District
Bay Area	Communications and Water Service Providers	Marin Water
Bay Area	Communications and Water Service Providers	Diablo Water District
Bay Area	Communications and Water Service Providers	Bay Area Water Supply & Conservation Agency
Bay Area	Communications and Water Service Providers	AT&T
Bay Area	Communications and Water Service Providers	Comcast
Bay Area	Communications and Water Service Providers	Comcast
Bay Area	Community Choice Aggregators	Peninsula Clean Energy
Bay Area	Community Choice Aggregators	East bay Community Energy
Bay Area	Community Choice Aggregators	MCE Clean Energy
Bay Area	Electric POUs	Alameda Municipal Power
Bay Area	Public Safety Partners	Alameda County
Bay Area	Public Safety Partners	Alameda County
Bay Area	Public Safety Partners	CCC OES
Bay Area	Public Safety Partners	El Cerrito Fire (Chief)
Bay Area	Public Safety Partners	Marin County Fire
Bay Area	Public Safety Partners	San Rafael Fire Department

REGION	ORGANIZATION TYPE	AGENCY
Bay Area	Public Safety Partners	Cal-Fire Unit Chief CZU
Bay Area	Public Safety Partners	San Bruno Fire (Chief)
Bay Area	Public Safety Partners	San Mateo City Police (Chief)
Bay Area	Public Safety Partners	SMCO Chief San Carlos Bureau
Bay Area	Representatives of AFN	ILRC CC
Bay Area	Representatives of AFN	Community Resources for Independent Living (CRIL)
Bay Area	Representatives of AFN	Regional Center of East Bay
Bay Area	Representatives of AFN	Center for Independence of the Disabled (CID)
Bay Area	Representatives of AFN	Marin Center for Independent Living (MCIL)
Bay Area	Representatives of AFN	Golden Gate Regional Center
Bay Area	Representatives of AFN	East Bay Innovations
Bay Area	Representatives of AFN	Samaritan House
Bay Area	Tribal and Local Government Entities	Marin County
Bay Area	Tribal and Local Government Entities	Contra Costa Public Works
Bay Area	Tribal and Local Government Entities	County Office of Sustainability
Bay Area	Tribal and Local Government Entities	SFO, Airport Emergency Management
Bay Area	Tribal and Local Government Entities	Alameda County Facilities
Bay Area	Tribal and Local Government Entities	County Office of Education
Bay Area	Tribal and Local Government Entities	Caltrain/Samtrans
Central Coast	Communications and Water Service Providers	Soquel Creek Water
Central Coast	Communications and Water Service Providers	California American Water
Central Coast	Communications and Water Service Providers	Verizon Wireless
Central Coast	Communications and Water Service Providers	San Lorenzo Valley Water
Central Coast	Communications and Water Service Providers	T-Mobile
Central Coast	Communications and Water Service Providers	Verizon
Central Coast	Community Choice Aggregators	Silicon Valley Clean Energy
Central Coast	Community Choice Aggregators	San Jose Clean Energy
Central Coast	Community Choice Aggregators	Monterey Bay Community Power
Central Coast	Public Safety Partners	Fire Chief Hollister
Central Coast	Public Safety Partners	Fire Chief MOCO
Central Coast	Public Safety Partners	Monterey County
Central Coast	Public Safety Partners	Ranger Chief CZU
Central Coast	Public Safety Partners	San Benito County
Central Coast	Public Safety Partners	Santa Cruz County
Central Coast	Public Safety Partners	Santa Barbara Co. Office of Emergency Management
Central Coast	Public Safety Partners	Santa Barbara County Fire
Central Coast	Public Safety Partners	SLO County Office of Emergency Services
Central Coast	Public Safety Partners	SLO County Fire Chiefs
Central Coast	Public Safety Partners	Director, San Jose Office of Emergency Management

REGION	ORGANIZATION TYPE	AGENCY
Central Coast	Public Safety Partners	City of Cupertino
Central Coast	Representatives of AFN	Central Coast Center for Independent Living (CCCIL)
Central Coast	Representatives of AFN	Red Cross
Central Coast	Representatives of AFN	Northern Santa Barbara Co. United Way
Central Coast	Representatives of AFN	Independent Living Resource Center (ILRC)
Central Coast	Representatives of AFN	Tri-County Regional Center
Central Coast	Representatives of AFN	San Andreas Regional Center
Central Coast	Representatives of AFN	SLO County Food Bank
Central Coast	Tribal and Local Government Entities	Santa Ynez Chumash
Central Coast	Tribal and Local Government Entities	Amah Mutsun Tribal Band
Central Coast	Tribal and Local Government Entities	City of Santa Clara Utility Director
Central Valley	Communications and Water Service Providers	Mariposa Public Utilities District
Central Valley	Communications and Water Service Providers	California Water Service
Central Valley	Communications and Water Service Providers	Sierra Telephone
Central Valley	Communications and Water Service Providers	Friant Water District (In T3 territory)
Central Valley	Communications and Water Service Providers	Tuolumne Utilities District
Central Valley	Electric POU's	Modesto Irrigation District
Central Valley	Electric POU's	Turlock Irrigation District
Central Valley	Electric POU's	Merced Irrigation District
Central Valley	Public Safety Partners	Fresno County OES
Central Valley	Public Safety Partners	Kern County OES
Central Valley	Public Safety Partners	Stanislaus County OES
Central Valley	Public Safety Partners	Calaveras County OES
Central Valley	Public Safety Partners	Mariposa County OES
Central Valley	Public Safety Partners	Fresno Public Health Director
Central Valley	Public Safety Partners	Fresno County Sheriffs
Central Valley	Representatives of AFN	Resources for Independent Living Central Valley (RICV)
Central Valley	Representatives of AFN	Independent Living Center of Kern County (ILCKC)
Central Valley	Representatives of AFN	Kern Regional Center
Central Valley	Representatives of AFN	Disability Resource Agency for Independent Living
Central Valley	Representatives of AFN	Valley Mountain Regional Center
Central Valley	Representatives of AFN	ADA - Joint AFN
Central Valley	Tribal and Local Government Entities	Tuolumne Band of Mi-Wuk Indians
Central Valley	Tribal and Local Government Entities	(Non-Federally Recognized Tribe)
Central Valley	Tribal and Local Government Entities	North Fork Rancheria, Tribal Council
Central Valley	Tribal and Local Government Entities	Tejon Indian Tribe

PACIFIC GAS AND ELECTRIC COMPANY
APPENDIX B
COMMUNITY RESOURCE CENTERS PLAN



Community Resource Center Plan



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1. Overview of Community Resource Centers

During a Public Safety Power Shutoff (PSPS) event, PG&E will open Community Resource Centers (CRCs) where community members can access resources during PSPS events, including:

- A safe location to meet their most basic power needs, such as charging electronic devices and basic medical equipment.
- Up-to-date information about the PSPS event and timing of restoration.
- Water, snacks and other essential items to reduce hardships to our customers.

In 2020, PG&E is working with local communities to improve the locations of, availability of and services provided at our CRCs. PG&E has received both indoor and outdoor site recommendations from counties, cities and tribes and continues to request additional site recommendations.

1.1. CRC Criteria (e.g., Generation)

PG&E takes into consideration the criteria described below when identifying and reviewing potential CRC locations.

- **Indoor CRC Site Criteria:**
 - **Compliant with safety requirements** (i.e., earthquake/fire codes, occupancy limits, meets all local codes, possesses interior and exterior lighting)
 - **ADA compliant** and meets all associated facility and parking guidelines
 - **Capable of receiving backup generation**
 - **Approximately 1,800+ square feet**
 - **Outfitted with restrooms and indoor plumbing or able to accommodate portable ADA-compliant restrooms and handwashing stations**
 - **Able to accommodate off-street paved parking**
 - **Equipped with a level loading area** to accommodate loading and unloading
- **Outdoor CRC Site Criteria:**
 - **Approximately half acre** or more in size
 - **Paved, accessible lot**
 - **Able to accommodate portable ADA-compliant restrooms and handwashing stations**

1.2. CRC Location Progress

PG&E's planned CRCs are known to the public. These include community centers, libraries, schools, churches, senior centers and other publicly known facilities. Note that Tent CRCs, Micro CRCs and Mobile CRCs will be set up in local parking lots that are known to the public.

These sites will be marked and identified in PG&E's event maps and listed on its website. PG&E will also share these site locations in our social media updates, as well as press releases that we share with the news media.

PG&E provides an overview of its progress identifying and making CRC locations event-ready in Attachment 1 to this Plan.

1.3. COVID-19 Considerations

PG&E is adapting our approach to CRCs to reflect appropriate COVID-19 public health considerations. PG&E has introduced a new three-tier prioritization model for counties (e.g., Group 1-3), 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, 16 Group 2 counties and 15 Group 3 counties.

Where Indoor CRCs are not event-ready due to COVID-19 realities, PG&E will replace them with Tent CRCs if shelter-at-home and physical distancing requirements are lifted. PG&E plans to offer Micro CRCs (smaller, open air tents) and Mobile CRCs (vans) to supplement indoor CRCs if shelter-at-home and physical distancing requirements are in place during PSPS events.

All CRCs reflect appropriate COVID-19 health considerations and state and county guidelines:

- Facial coverings, physical distancing and limits on the number of visitors at any time are required.
- Temperature checks are administered before entry into indoor sites.
- Surfaces are regularly sanitized.

1.3.1 Portable Battery Pilot (PBP) Program

PG&E understands that visiting a CRC during the COVID pandemic may prove infeasible for many of its vulnerable customers. PG&E's Portable Battery Pilot Program is another way PG&E is supporting customers during the COVID pandemic.

In 2020, PG&E created its Portable Battery Pilot (PBP) Program in response to feedback received from input from stakeholders in the AFN community and customers impacted by PSPS events. The PBP Program leverages CBOs to work with customers to assess their energy needs for critical medical equipment and the overall preparedness for a PSPS event. The Program will provide a fully subsidized portable backup battery solution to low-income, medically vulnerable customers in High Fire Threat Districts (HFTD) throughout PG&E's service area, to aid these customers' resiliency during PSPS events. The Program aims to provide sufficient power to charge critical electronic devices (i.e., cell phones or tablet computers) and operate the customer's medical devices in the event of a PSPS. These portable batteries help reduce the risk of COVID exposure to for some of PG&E's most vulnerable customers, as they may have otherwise gone to a CRC for support.

The Program leverages the Low Income Home Energy Assistance Program (LIHEAP) and the Energy Savings Assistance (ESA) network to provide portable backup batteries to eligible customers. The Program offers two models for battery deployment, which are used at the discretion of the CBO in consultation with PG&E – 1) customer battery ownership, where the LIHEAP CBO provides the battery to eligible customers with no return date; or 2) CBO battery ownership, where the CBO provides the battery to the customer for a set amount of time, which could be the duration of the peak wildfire season. The battery is then returned to the CBO for redeployment.¹ This flexible program model allows

¹ The LIHEAP provider will determine the appropriate model based on the customer's unique circumstances. For example, if a customer resides in a remote area without access to CRCs, microgrids and other support services it is likely the LIHEAP provider will select the "customer ownership" model. Conversely, if the customer lives closer to support services, the LIHEAP provider may select the "seasonal loaner" model.

PG&E to expand the reach of its Portable Battery Pilot Program, and ensure the Program supports those vulnerable customers that need it the most. Both Program models leverage the same implementation strategy, fashioned after PG&E's ESA direct install approach. Program offerings include outreach, an assessment of the customer's energy needs for medical devices, an assessment of the household's overall preparedness for a PSPS event, and the deployment of a right-sized battery for prioritized customers. Customer prioritization is at the discretion of the CBO in consultation with PG&E. This approach provides a simple, streamlined customer experience with no upfront costs for the customer. PG&E plans to launch outreach in August 2020 and deliver more than 3,000 batteries to eligible customers in 2020. PG&E plans to extend the Program through 2023.

The PBP Program CBOs will coordinate efforts with the California Department of Community Service and Development's Severe Weather Energy Assistance and Transportation Services (SWEATS) PSPS Pilot,² which allows even more customers to access important resiliency services. Additionally, this Program builds on the valuable experience PG&E gained from the CFILC Disability Disaster Access and Resources Program pilot launched in 2019. PG&E customers with medical and independent living needs will continue to have access to the CFILC Disability Disaster Access and Resource Program in 2020. This Program offers an additional 800 portable battery units to be deployed in 2020. PG&E will continue to coordinate with other community resources and CBOs to build their capacity to best support vulnerable customers during PSPS events.

PG&E will seek customer and stakeholder feedback on the PBP Program to identify continuous improvement opportunities.

1.4. Collaboration with Stakeholders on CRC Plan

PG&E created the CRC Plan in consultation with regional and local government, Advisory Boards, public safety partners, representatives of the disability and aging/access and functional needs (AFN) communities, tribal representatives, senior citizen groups, business owners, community-based organizations (CBOs) and public health and healthcare providers. Below is a summary of ongoing outreach to these communities.

- **Regional Local Government and Public Safety Partners**
 - Initially contacted 47 counties for their input on CRC locations in January 2020.
 - Conducted a second round of outreach in April 2020 to counties that fall into Groups 1 and 2 via Public Safety Specialist (PSS) and Local Public Affairs (LPA) teams.
 - Conducted a second round of outreach in May 2020 to counties that fall into Group 3 counties via PSS and LPA teams.
 - Sent county-specific CRC plan for Group 3 counties to LPA/PSS representatives for additional county approval/feedback in June 2020.
 - Conducting weekly check-ins with LPA/PSS for county communication and CRC progress updates starting in June 2020.
 - Participated in calls with county and city Offices of Emergency Services (OESs).
 - Provided CRC updates for county (fire chiefs, city managers, county administrators, etc.) via weekly Wildfire Safety Working Sessions occurring March – July 2020.

² <https://www.csd.ca.gov/Shared%20Documents/2021-LIHEAP-Draft-State-Plan-ADA.pdf>

- Provided ad hoc CRC status updates to county and city OESs upon request via PSS and LPA teams.
- Beginning in July 2020, conducted Regional Working Group Sessions to discuss feedback and input on the CRC plan.
- Invitations to be sent to county and city partners to join Regional Working Group sessions starting in July and through August 2020.
- **Advisory Boards**
 - Representatives invited to Regional Working Group sessions July and through August 2020.
- **Disability and Aging/AFN Representatives**
 - Solicited feedback on CRC plan via email in June 2020 from members of the People with Disabilities and Aging Advisory Council (PWDAAC) composed of CBO leaders representing the disability and aging/AFN communities.
 - Invited to Regional Working Group sessions July and through August 2020.
- **Tribal Representatives**
 - Received feedback from 52 of 62 tribes regarding CRCs.
 - Invited to Regional Working Group sessions July and through August 2020.
- **Senior Citizen Groups**
 - Solicited feedback on CRC plan via email in June 2020 from members of the PWDAAC.
- **Business Owners**
 - Invited to Regional Working Group sessions July and through August 2020.
- **Community Resource Organizations**
 - Reviewed high-level plan during two disability and aging/AFN, CBO and Agency Webinars in July 2020 attended by various CBO representatives.
 - Representatives invite to Regional Working Group sessions in July and August 2020.
- **Public Health and Health Care Providers**
 - Reviewed high level plan during two disability and aging/AFN, CBO and Agency Webinars in July 2020 attended by various CBO representatives.
 - Invited to Regional Working Group sessions in July and through August 2020.

1.5. Disability and Aging/Access and Functional Needs Communities and Medical Baseline Customer Considerations

PG&E has taken the following steps to base the CRC Plan on local demographic data so that it meets a variety of safety needs for disability and aging/AFN communities, as well as Medical Baseline customers.

- ADA evaluation and remediation investment at indoor sites, along with compliance checklists for onsite personnel
- Consultation with counties via LPA and PSS teams regarding CRC locations based on county-specific and/or local demographics
- Public transit evaluation for distance and accessibility for indoor and outdoor sites
- Evaluation of accessible parking either through restriping, signage and/or cones
- Provision of:
 - ADA-compliant, portable restrooms and handwash stations at all CRC sites
 - Information cards with in-language resources for visiting customers
 - Clear face shields and white boards for accessible communication
 - Signage compliance

- Medical device charging at all CRC sites





1.6. CRC Hours of Operations

PG&E opens CRCs in impacted communities as soon as possible after the start of a PSPS event and will make sites available to customers from 8:00 AM-10:00 PM. PG&E may decide not to open a CRC due to faster than anticipated restoration, safety concerns, etc.

1.7. CRC Types

Given the current COVID-19 environment, in addition to continuing to establish indoor CRCs, PG&E is implementing outdoor contingencies including Tent, Micro and Mobile CRCs.

Figure 1: Overview of CRC Types

				
TYPE	INDOOR	TENT	MICRO	MOBILE
DESCRIPTION	Indoor site (i.e. a community center)	Tent with soft-sided walls at an outdoor site	Smaller, open air tent at outdoor site	Sprinter van at outdoor site
IF PHYSICAL DISTANCING REQUIRED	Metering inside and physical distancing	N/A; due to size limits of tent, will not use	Grab and Go Bags	

NOTE: Grab and Go Bags contain device charger, water, snacks and a CRC information card.

1.8. CRC Resources (e.g., Device Charging, Wi-Fi Service)

Figure 2: Resources by CRC Type

				
DETAILS/RESOURCES	INDOOR	TENT	MICRO	MOBILE
Wind/Weather-Resistant	✓	Limited		
ADA-Compliant Toilets and Hand-Washing Stations	✓	✓	✓	✓
Heating and Cooling	✓	✓		
Device Charging	✓	✓	✓ *	✓ *
Wi-Fi Service	✓	✓	✓	✓
Bottled Water	✓	✓	✓	✓
Non-Perishable Snacks	✓	✓	✓	✓
Coffee and Tea	✓	✓		
Tables and Chairs	✓	✓		
Bagged Ice	✓	✓		
Blankets (quantities limited)	✓	✓		
Security Personnel	✓	✓	✓	✓

* On-site charging for medical devices only

NOTE: PG&E and their cellular partners evaluated CRC sites for coverage strength when activating CRCs. PG&E purchased ten mobile cellular towers to support locations needing additional coverage.

2. Site Logistics and Operations

2.1. CRC Rules and Code of Conduct

Customers will be greeted by Customer Care-contracted personnel upon entering a CRC. The Customer Care-contracted personnel will manage the sign-in process, review the Code of Conduct and discuss available resources with customers. Each CRC will have posted signs to welcome customers and remind them of all applicable rules (see Figure 4 for examples).

Figure 3: Examples of CRC Signage



2.2. Site Safety

Before opening a CRC to the public, personnel conduct a safety tailboard to identify all available safety resources and review safety procedures. This includes locating basic medical resources, such as first aid kits and automated external defibrillators (AEDs) to contact emergency services as needed. PG&E requires all personnel to familiarize themselves with external safety resources onsite and where to access relevant contact information (e.g., security personnel, traffic control, etc.).



Any outdoor CRCs will be encircled by cone bars that create clear entry and exit points, protect visitors from vehicle safety issues and define a perimeter that can be patrolled by security personnel. Cone bars are required. They will be set up and removed by an Emergency Services Provider in coordination with PG&E's Logistics team.

CRCs are equipped with basic medical resources such as first aid kits and AEDs to contact emergency services as needed. Signs with safety and emergency protocols are also posted around the CRC in visible locations.

Once the CRC is set up, a representative from PG&E's Corporate Safety organization assesses the safety of the location and provides any recommended safety improvements.

3. Staffing Plan

Providing a seamless visitor experience requires close coordination between real-time decision-makers in the PG&E Emergency Operations Center (EOC) and the cross-functional team that staffs and supports CRCs. To this end, the EOC Customer Strategy Officer (CSO) Assistant oversees this team of onsite staff and offsite planning personnel which meets regularly during PSPS events to develop, operate and maintain CRCs. All CRC personnel are informed of CRC protocols as part of required PSPS training. (See Sections 3.1 and 3.2 for more information on the roles for onsite staff and offsite planning personnel, respectively.)

3.1. Onsite Personnel

Onsite personnel are responsible for setting up facilities and interacting with customers at CRCs.

Table 1: Onsite CRC Staffing Overview

Role
Customer Service Lead
Customer Service Support
Logistics
Corporate Safety
Corporate Security
Emergency Services Provider
Security Contractors
Traffic Control

3.2 Offsite Support Personnel

In addition to coordinating with onsite staff, the EOC CSO coordinates offsite personnel that support communications, planning and outreach (see Table 2 for more information).

Table 2: Offsite CRC Support Overview

Role
EOC Customer Strategy (CSO) Assistant
Customer Contact Emergency Coordination Center (CCECC)
Digital Strategy
Environmental
Land
PSS
P&I
Logistics
IT
HR/Staffing
Temporary Generation Branch

PACIFIC GAS AND ELECTRIC COMPANY
APPENDIX B
ATTACHMENT 1

Community Resource Centers Plan - Appendix






CRC Priority Group 1 – as of July 21

16 SITES
EVENT READY

COUNTY*	ADJUSTED HARD SITE TARGET**	SOFT SIDE TARGET	SITES IDENTIFIED	SITES UNSUITABLE	BACKUP***	SITES IN PROGRESS	IN REVIEW		IN CONTRACT		IN CONSTRUCTION		EVENT READY	SOFT SIDE SITES	
							LAND	ADA/ELECTRIC	LICENSING	EXECUTED AGREEMENT	PERMITTING	CONSTRUCTION	HARDSIDE SITES READY	PENDING SITES	ACTIVE SITES
AMADOR	3	3	13	10	-	3	-	-	2	1	-	1	-	-	4
BUTTE	5	5	18	13	1	4	-	-	1	3	2	-	1	1	6
CALAVERAS	4	4	8	2	1	5	-	-	5	-	-	-	-	-	5
EL DORADO	5	5	11	-	6	5	-	-	1	4	2	-	2	-	10
LAKE	5	5	12	5	2	5	-	2	-	3	1	-	2	2	5
MARIN	4	4	14	7	-	7	1	4	1	1	1	-	-	-	7
MENDOCINO	4	4	14	4	6	4	-	-	1	3	-	1	2	2	7
NAPA	4	4	12	7	1	4	-	-	1	3	-	1	2	-	6
NEVADA	5	5	14	6	2	6	-	2	-	4	-	1	3	1	4
PLACER	4	4	9	1	3	5	-	-	3	2	-	-	2	-	4
SAN MATEO	5	5	8	3	-	5	-	-	2	3	3	-	-	-	7
SANTA CRUZ	4	4	25	18	3	4	1	1	2	-	-	-	-	1	3
SOLANO	4	4	10	7	-	3	-	1	-	2	1	1	-	-	5
SONOMA	5	5	16	6	5	5	-	-	4	1	-	-	1	-	7
TUOLUMNE	2	2	6	2	2	2	-	-	1	1	-	1	-	-	6
YUBA	3	3	5	2	-	3	-	1	1	1	-	-	1	-	4
TOTAL	66	66	195	93	32	70	2	11	25	32	10	6	16	7	90

*Target = 4 sites/county **Adjustments based on County/PSS feedback in CRC Deep Dives

***Identified but not in progress

 Outdoor sites complete

Some of the measures included in this presentation are contemplated as additional precautionary measures intended to further reduce the risk of wildfires.



CRC Priority Group 2 – as of July 21

**7 SITES
EVENT READY**

COUNTY*	ADJUSTED HARD SITE TARGET**	SOFT SIDE TARGET	SITES IDENTIFIED	SITES UNSUITABLE	BACKUP***	SITES IN PROGRESS	IN REVIEW		IN CONTRACT		IN CONSTRUCTION		EVENT READY	SOFT SIDE SITES	
							LAND	ADA/ELECTRIC	LICENSING	EXECUTED AGREEMENT	PERMITTING	CONSTRUCTION	HARDSIDE SITES READY	PENDING SITES	ACTIVE SITES
ALAMEDA	3	3	12	5	2	5	2	1	2	-	-	-	-	-	5
COLUSA	3	3	9	6	1	2	-	-	-	2	1	-	1	-	4
CONTRA COSTA	4	4	26	15	6	5	-	3	2	-	-	-	-	-	6
FRESNO	3	3	6	-	3	3	-	-	2	1	-	1	-	-	5
GLENN	0	0	2	2	-	-	-	-	-	-	-	-	-	-	5
HUMBOLDT	4	4	17	6	7	4	-	-	1	3	-	-	3	1	6
KERN	3	3	14	9	1	4	-	1	-	3	3	-	-	-	4
MADERA	4	4	7	-	3	4	-	-	-	4	-	4	-	1	3
MARIPOSA	3	3	8	3	1	4	-	3	1	-	-	-	-	-	4
MONTEREY	3	3	11	8	-	3	1	1	1	-	-	-	-	-	4
PLUMAS	2	2	6	3	1	2	-	-	1	1	1	-	-	-	4
SANTA CLARA	5	5	15	4	6	5	-	-	5	-	-	-	-	-	9
SHASTA	4	4	14	4	5	5	-	1	1	3	3	-	-	-	8
SIERRA	2	2	6	3	1	2	-	-	-	2	-	1	1	1	2
TEHAMA	2	2	9	5	2	2	-	-	-	2	-	1	1	-	4
YOLO	3	3	15	4	7	4	-	1	1	2	1	-	1	1	5
TOTAL	48	48	177	77	46	54	3	11	17	23	9	7	7	4	78

*Target = 3 sites/county **Adjustments based on County/PSS feedback in CRC Deep Dives

***Identified but not in progress

Outdoor sites complete

Some of the measures included in this presentation are contemplated as additional precautionary measures intended to further reduce the risk of wildfires.




CRC Priority Group 3 – as of July 21

0 SITES
EVENT READY

COUNTY*	ADJUSTED HARD SITE TARGET**	SOFT SIDE TARGET	SITES IDENTIFIED	SITES UNSUITABLE	BACKUP***	SITES IN PROGRESS	IN REVIEW		IN CONTRACT		IN CONSTRUCTION		EVENT READY	SOFT SIDE SITES	
							LAND	ADA/ELECTRIC	LICENSING	EXECUTED AGREEMENT	PERMITTING	CONSTRUCTION	HARDSIDE SITES READY	PENDING SITES	ACTIVE SITES
ALPINE	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1
KINGS	-	3	3	-	3	-	-	-	-	-	-	-	-	1	2
LASSEN	-	1	8	1	7	-	-	-	-	-	-	-	-	-	3
MERCED	-	1	9	-	9	-	-	-	-	-	-	-	-	-	3
SACRAMENTO	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-
SAN BENITO	-	1	9	6	3	-	-	-	-	-	-	-	-	1	-
SAN FRANCISCO	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
SAN JOAQUIN	-	1	6	1	5	-	-	-	-	-	-	-	-	-	3
SAN LUIS OBISPO	-	1	16	1	15	-	-	-	-	-	-	-	-	-	4
SANTA BARBARA	-	1	10	5	4	1	1	-	-	-	-	-	-	-	3
SISKIYOU	-	0	5	5	-	-	-	-	-	-	-	-	-	-	-
STANISLAUS	1	1	1	-	-	1	1	-	-	-	-	-	-	-	3
SUTTER	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-
TRINITY	1	1	6	3	2	1	-	-	-	1	-	1	-	-	3
TULARE	-	1	8	3	5	-	-	-	-	-	-	-	-	1	-
TOTAL	2	14	81	25	53	3	2	-	-	1	-	1	-	3	25

*Target = 0 sites/county **Adjustments based on County/PSS feedback in CRC Deep Dives

***Identified but not in progress

 Outdoor sites complete

Some of the measures included in this presentation are contemplated as additional precautionary measures intended to further reduce the risk of wildfires.

PACIFIC GAS AND ELECTRIC COMPANY
APPENDIX C
ELECTRIC VEHICLE CHARGING NETWORK RESILIENCY PLAN

Reinforcing Key EV Charging Locations

Introduction

In accordance with Ordering Paragraph 33 of Decision 20-05-051, PG&E submits its initial scoping plan to “reinforce key charging locations with backup generation.” If approved by the CPUC, PG&E will continue to execute items discussed below in preparation for 2021 wildfire season. Some elements of the Plan will also be executed upon as soon as feasible and therefore likely well before the 2021 wildfire season.

Methodology: Identification of EV Customers with Potential to be impacted by PSPS Events

To determine the scope for potential backup generation, PG&E first assessed the number of electric vehicle (EV) drivers and Level 2 (L2) and Level 3 (L3) chargers in Tier 2 and Tier 3 High Fire Threat Districts (HFTD)¹. Once this addressable market was determined, PG&E assessed the number of unique ports impacted by 2019 PSPS events and plans to assess the impact of 2020 events, to determine the likelihood a port in a Tier 2 or Tier 3 HFTD would remain energized. Through this exercise, PG&E determined that a port can be impacted by a PSPS event even if it is not considered a to be within a HFTD. These ports tend to be just outside of HFTDs, connected to portions of the grid that need to be deenergized. Going forward, PG&E is expanding its analysis to consider ports within HFTDs and ports adjacent to HFTDs.

PG&E also overlaid several permanent microgrids that have been built to provide community resiliency during PSPS events and found there are a few L2 and L3 ports within some of these microgrids, which will remain energized during an event. The most cost-effective way to provide resiliency to customers during a PSPS event is to direct customers to chargers that remain energized.

Analysis of PG&E’s EV rebate recipient accounts shows that a small percentage of known EVs registered in PG&E territory could be impacted by a PSPS event. Although a large number of EVs are registered in zip codes that are partially or entirely within Tier 2/3 HFTDs, data also demonstrates that only approximately 3% of Public L2 or L3 ports in PG&E’s territory were impacted by 2019 PSPS events. Going forward, PG&E is also striving to reduce the impact of PSPS events on all customers, including EV drivers. However, as EV adoption increases in California, it is important that customers have comfort that they will be able to charge their vehicle in an emergency. Therefore, PG&E will continue to work with customers and EV service providers (EVSPs) to ensure customer EV resiliency.

Overview of Known light duty EV drivers and EVs in High Fire Threat Districts

PG&E has insight into light-duty EVs (i.e., passenger vehicles) within its service territory at a macro level via California Department of Motor Vehicle (DMV) data provided by Electric Power Research Institute (EPRI). However, PG&E does not have information on where the drivers of these vehicles live and charge their vehicles. Instead, PG&E has access to aggregated EV registration data by zip code, which is compiled by EPRI. PG&E does have discrete location data for customers who have received an EV rebate from PG&E’s Clean Fuel Rebate program. Approximately 50% of EVs registered in PG&E territory have received an EV rebate through the Clean Fuel Rebate program. PG&E is able to estimate the potential number of impacted customers in HFTDs by mapping unique recipients against HFTDs.

¹ <https://www.cpuc.ca.gov/FireThreatMaps/>

A high-level snapshot of potentially impacted EV driving customers within HFTDs in PG&E’s service territory is provided below:

- According to data compiled by EPRI, as of April 2020 there are approximately 173,521 EVs registered in zip codes that are entirely or partially within Tier 2/3 HFTDs
 - This represents approximately 60% of the total number of EVs registered in PG&E’s service territory²
 - This number likely overrepresents the number of EV customers located directly in Tier 2/3 HFTDs, as PG&E is unable to disaggregate the data beyond the zip code level, and therefore counted all EV customers within a zip code as within a HFTD, when the HFTD may not fully encompass each zip code.
- Approximately ~11,000 customers who received PG&E’s Clean Fuel Rebate live in Tier 2/3 HFTDs
 - This represents approximately 10% of total unique customers who received the Clean Fuel Rebate³

Overview of Public Level 2 and Level 3 Chargers in High Fire Threat Districts

PG&E conducted internal analysis to determine the scope of public L2 and L3 charging sites and ports that are in HFTDs and those that have been previously impacted by PSPS events in its service territory in 2019. Based on Department of Energy Data from the Alternative Fuels Database⁴, accessed on July 23, 2020, PG&E estimates that less than 3% of Public L2 and L3 ports are within HFTDs. Table 1 shows the percentage of ports within PG&E HFTDs and impacted by a 2019 PG&E PSPS event.

Table 1: Total number of L2 and L3 charging ports in California and PG&E territory; Total and % of ports impacted by 2019 PSPS events; Total and % ports within Tier 2/3 HFTDs

Total Ports (L2 & L3)		Ports (L2, L3) Impacted by 2019 PG&E PSPS Events or in PG&E HFTD			
California	PG&E	Impacted by 2019 Event	%	T2/T3 HFTD	%
94,431	37,772 ⁵	1,159	3.07%	1,118	2.96%

Table 2 below demonstrates the number of charging sites and ports that are located within Tier 2 and Tier 3 high wildfire threat districts (HFTDs).

Table 2: L2 and L3 charging sites and ports within Tier 2/3 HFTDs

	Public Level 2		Level 3	
	Sites	Ports	Sites	Ports
Tier 2 HFTDs	198	539	26	117

² Total cumulative PEVs registered in PG&E totaled 291,433 as of April 2020. Source: EPRI monthly report.

³ Total unique mapped accounts who have participated in the Clean Fuel Rebate program totaled 114,316 as of April 30, 2020. Source: PG&E CFR database.

⁴ https://afdc.energy.gov/fuels/electricity_locations.html#/find/nearest?fuel=ELEC

⁵ PG&E estimates it serves approximately 40% of the State of California. The number of ports is calculated by multiplying 40% by the total number of ports in California.

Tier 3 HFTDs	113	299	32	163
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Table 3 demonstrates the number of unique sites and ports impacted by previous PSPS events in PG&E service territory in 2019.

Table 3: Unique L2 and L3 charging sites and ports impacted by 2019 PPS events

<i>Impacted by # of Events</i>	Public Level 2		Level 3	
	Sites	Ports	Sites	Ports
One Event	343	1008	63	151
Two Events	214	525	31	136
Three or more	140	324	19	59

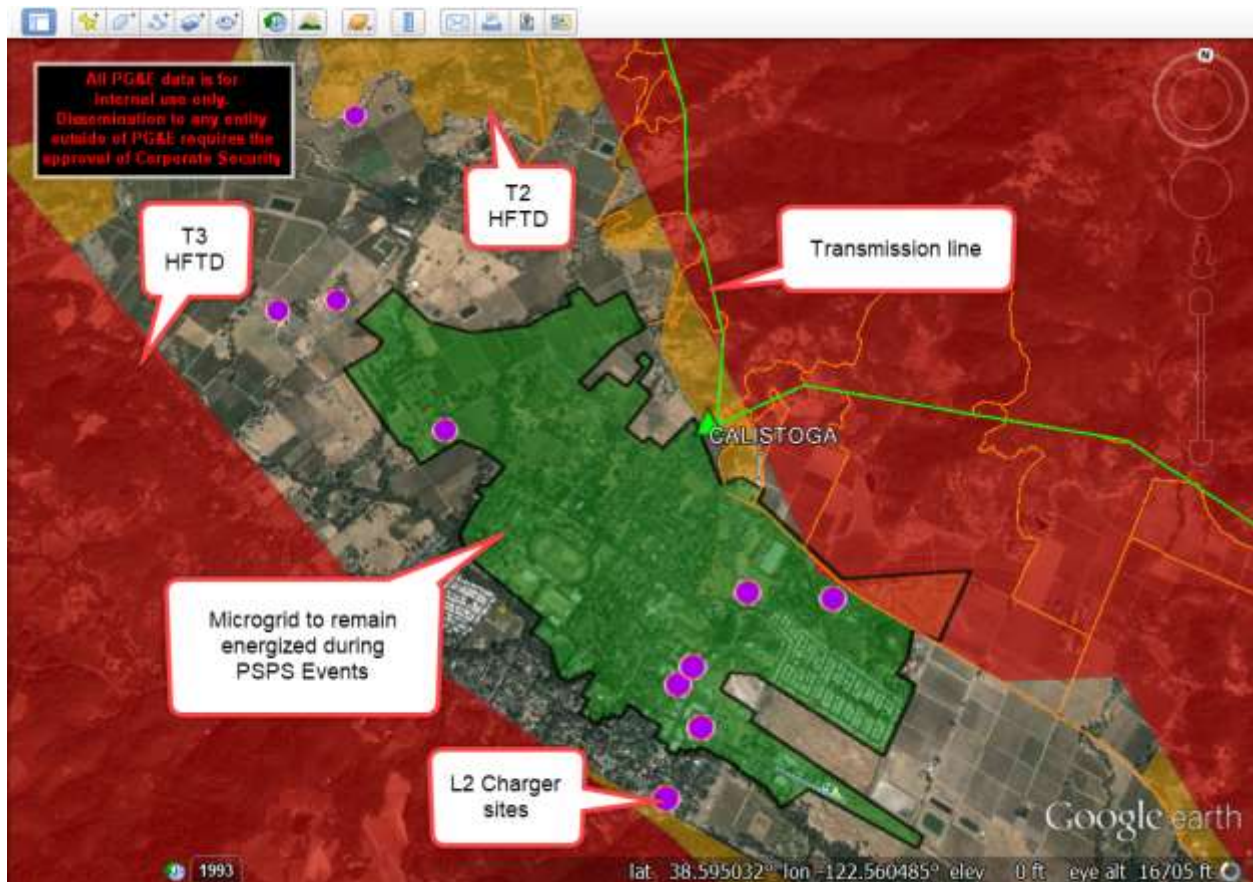
Scope of PPS Mitigation Efforts Impacting Charger Resilience

PG&E has implemented many important actions to lessen the scope and severity of future PPS events, as detailed in its Progress Report on Phase 2 OIR Implementation of De-energization Guidelines. Such actions benefit all types of customers, including residential customers with EVs as well as locations such as workplaces, shopping centers or other destinations that may host EV charging equipment.

Microgrids

PG&E is building temporary microgrids that allow impacted communities to stay energized during a PPS event. These temporary microgrids will be used in selected communities where PG&E can safely provide electricity to centrally located resources such as medical facilities and pharmacies, police and fire stations, gas stations, and banks. PG&E has four completed microgrids that are ready to be called upon should the need arise today. Additionally, PG&E plans that one additional microgrid will be in service by September 1, 2020.

Within the four active microgrids, PG&E has identified 6 public L2 charging sites, representing 10 charging ports. Furthermore, there is one L3 charging site with 2 charging ports. PG&E will coordinate with these charging location site hosts and EVSPs to see if these locations can be shared with the public during PPS events. Additionally, if any of these locations are ordinarily reserved for the sole use of site host customers, PG&E will work with site hosts to see if these can be open to wider public use during PPS events impacting nearby locations (i.e., used by individuals who are not customers of a given site host). Figure 1 below illustrates one of PG&E’s constructed temporary microgrids that includes EV charging sites within its energization zone.



Temporary Generation Zones

PG&E will use temporary generation at safe-to-energize substations to support safe-to-energize customers and communities affected by transmission line outages during PSPS events. PG&E has developed temporary generation plans at 62 substations that could be impacted by PSPS events at the transmission level. Depending on the event, some public L2 and/or L3 charging infrastructure at these substations could remain energized, subject to operational logistics and generator availability.

Sectionalizing

PG&E is installing sectionalizing devices to more quickly and efficiently isolate impacted communities. Sectionalizing entails the installation of switches, either manual or remotely operated, which will isolate sections of the grid where it dips into high fire threat districts, thereby keeping more customers energized. As PG&E sectionalizes more of the distribution grid there will be more certainty as to where L2 and L3 chargers will remain energized, enabling PG&E to point customers towards nearby energized charging.

Key Charging Locations

Decision 20-05-051 does not define “key charging locations.” PG&E recommends that L3 charging sites (also referred to as DC Fast Charging sites) located within Tier 2 and 3 HFTDs be considered as the key locations to scope planning for backup generation at this time. PG&E has identified 280 L3 ports that would be considered, “key charging locations.” PG&E is exploring if any L3 charging sites adjacent to HFTDs should be included as key charging locations. PG&E will overlay 2020 event data and provide a final recommendation in 2021. PG&E provides rationale for this recommendation below.

L3 chargers most quickly enable an EV driver to add electric fuel to their vehicle, taking approximately 30 minutes to charge to 80% of capacity.⁶ L2 chargers on the other hand, require approximately four to eight hours to charge a vehicle. While L2 charging is ideal for situations when drivers plan to be parked in one location for several hours (e.g., at home overnight, at a workplace during the day, at a movie theater, etc.) during PSPS events it is unlikely drivers will want or be able to park their vehicles for multiple hours. Therefore, a reasonable assumption is that L3 chargers will be most demanded in times of PSPS events where speed is likely most prized by customers seeking a quick “top-up” and the ability to travel to their desired destination without a long wait. L3 chargers would also allow many more EVs to charge over a given time period, ensuring greater equity for EV drivers seeking to re-fuel. For these reasons, PG&E scopes L3 chargers located in HFTDs as those for which charging resiliency should be explored.

Preliminary Research into Charging Resiliency Options

PG&E has begun evaluating resiliency options within the following categories:

- Communications
- Off-grid, easily deployable and mobile L3 charging solutions
- Backup generation options for existing L3 chargers

Communications of Existing, Energized Chargers

By far, the most cost-effective approach to providing EV resiliency for customers is to provide a robust communications plan. PG&E is updating communications to include messaging to customers about charging their EV prior to events on PG&E’s website and via social media and will direct customers to PG&E’s EV Savings Calculator⁷, where customers can find a map of publicly available charging stations. It is imperative that customers charge their EVs ahead of an event, limiting the need for backup generation at charging stations or mobile charging stations to emergency top-offs.

During events, PG&E will also direct customers directly to Original Equipment Manufacturers (OEM) and EVSPs who will likely have more accurate and up-to-date information regarding charger availability.

Off-Grid, Easily Deployable and Mobile EV Charging Solutions

PG&E has begun evaluating off-grid easily deployable and mobile resiliency solutions for EV charging to determine the feasibility of deploying a mobile solution during a PSPS event. In accordance with Decision 20-05-051, PG&E will use this research to propose one or more mobile L3 pilot projects in 2021.

⁶ See EVgo website explaining the three levels of EV charging, here: <https://www.evgo.com/ev-drivers/customer-resources/>

⁷ <https://ev.pge.com/charging-stations>

As noted previously, PG&E plans to enhance customer communications in advance of and during 2020 PSPS events, to ensure customers are able to charge their EVs prior to an event. This reduces the demand for backup generation. However, it does not eliminate the need. Customers, such as EVSPs or charging site hosts, seeking EV charging resiliency during times of grid outages have several options, including portable or stationary electric generators, energy storage systems, or fuel cells. PG&E has reviewed these charging resiliency options using the five criteria below.

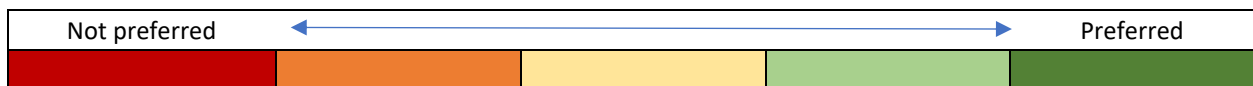
- **Safety:** Potential resiliency options must be evaluated first and foremost on safety to customers, employees and the electric grid.
- **Reliability:** Resiliency options must be reliable for drivers, expected to provide charge at any time during PSPS. Options that may not offer many vehicles the chance to charge over a given time period will not prove as beneficial or useful.
- **Affordability:** Cost-effectiveness of options must be considered to ensure customers do not pay for expensive and underutilized assets.
- **Environmental Impact:** EVs are critical to meeting the State’s GHG reduction goals and therefore it will be critical to avoid negating gains made from having more EVs on the road by using GHG emitting resources to generate electricity needed to power vehicles.
- **Footprint Impact:** EV charging facilities may be located in areas with space constraints and therefore a consideration of the physical size of resiliency measures is needed to evaluate feasibility.

These options have been evaluated at a high-level and PG&E intends to more rigorously analyze these potential options in the coming months. Table 4 displays initial, directional results, while further detail is provided in text below.

Table 4: Directional results of initial backup generation evaluation

Backup generation type	Safety	Reliability	Affordability	Environmental Impact	Footprint Impact
Diesel Generator	Green	Green	Green	Red	Green
NG Generator	Green	Green	Green	Orange	Light Green
Biodiesel Generator	Green	Green	Light Green	Yellow	Green
Battery Storage	Yellow	Orange	Red	Green	Orange
Fuel Cell	Yellow	Yellow	Red	Light Green	Orange

Directional Scale:



Portable or Stationary Electric Generator

Electric generators powered by diesel, gasoline, natural gas or biodiesel are the most mature form of resiliency available to customers. If properly installed, used and maintained, these are very safe to operate as a source of backup power. Diesel, gasoline and natural gas are all relatively easily available for purchase and can ensure near continuous operation offering high reliability to provide backup power. Biodiesel is not as readily available but similarly offers a user the ability to provide reliable

backup power if enough supply is on hand. Given their maturity, electric generators are often the most affordable option. The environmental impact of electric generators is high as their operation necessitates emissions, even if biodiesel is used as the fuel source. Electric generators utilize very dense fuels and therefore can be smaller in size, however, similar to any resiliency resource, additional space will be needed to ensure safe installation and operation. Additional spacing may be desired to allow for adequate air flow given particulate matter emissions.

Battery Storage

Battery storage systems are generally very safe. The primary safety concern is the potential for overheating, which can be managed by:

- Ensuring an adequate cooling system for the batteries
- The inclusion of dividers between individual battery cells
- Electronic protection circuits built into the battery pack
- Real-time monitoring of system temperature, rate of charging and discharging
- Remote shut-off via smart management software

Most standard storage systems only discharge for several hours without needing to be re-charged. For the purposes of providing resiliency to EV charging locations, this likely means a very limited number of cars could be recharged if a grid outage event lasts, making reliability limited. Although battery storage costs have come down over the years and are expected to continue declining, the costs are still high compared to other options like generators. Battery storage has a minimal environmental impact as it does not produce emissions on its own. As far as footprint, battery storage system sizes vary by capacity and are not overly large compared to generators. However, if intending to re-charge solely with renewable energy such as solar or wind, the footprint for any combined system would be very large.

Fuel Cell

According to the US Department of Energy: “a fuel cell uses the chemical energy of hydrogen or another fuel to cleanly and efficiently produce electricity. If hydrogen is the fuel, electricity, water, and heat are the only products. Fuel cells are unique in terms of the variety of their potential applications; they can provide power for systems as large as a utility power station and as small as a laptop computer.⁸” If correctly installed, operated and maintained, fuel cells are generally considered very safe. Fuel cells are also reliable if the input fuel is readily available, although fuel cells can take some time to ramp up. Fuel cells are still a relatively new technology and therefore cost much more than more mature technologies like diesel generators. In terms of environmental impact, “fuel cells have lower emissions than combustion engines. Hydrogen fuel cells emit only water, so there are no carbon dioxide emissions and no air pollutants that create smog and cause health problems at the point of operation. Also, fuel cells are quiet during operation as they have fewer moving parts.”⁹ In terms of footprint, preliminary research has shown that a natural gas fuel cell is roughly ten times the size of as a combustion generator of similar power output potential.

⁸ <https://www.energy.gov/eere/fuelcells/fuel-cells>

⁹ Ibid

Necessary Considerations and Barriers for Charging Resiliency Options

Since Decision 20-05-051 was issued, PG&E has held initial conversations with EVSPs with L3 chargers in its service territory to learn more about their resiliency plans as well as necessary conditions and potential barriers to installing resiliency options at their charging sites. During these conversations, PG&E learned that most of these EVSPs do not currently have resiliency plans to mitigate grid outages caused by PSPS or other events. Some EVSPs PG&E spoke with already have energy storage systems co-located alongside their charging facilities. However, these storage devices are geared toward demand charge mitigation and have not been set up to island from the grid to provide emergency backup power. PG&E was informed that this may be further explored in the future, but some skepticism was mentioned as to the effectiveness of these existing batteries to provide charging resiliency for many vehicles given their limited capacity. Parties highlighted several considerations and barriers that are discussed below.

Permitting Considerations

Depending on what type of charging resiliency option an entity pursues, permits could be required. For “stationary engines” the California Air Resources Board (CARB) advises that “stationary back-up engines are often subject to air district requirements. These requirements vary by air district, and they may include permitting requirements, emission limits, and operational restrictions. Owners and operators of stationary back-up engines should contact the air district in which the engine would be operated to ensure that such engines are operated in accordance with applicable air district rules and requirements.”¹⁰ Mobile generators referred to by CARB as “portable engines” may also be “subject to air district requirements.” Entities considering backup generation can find the air quality regulator serving their area and obtain more information at the following link:

<https://arb.ca.gov/app/dislookup/dislookup.php>

For renewable resources coupled with battery storage no air district permits are required; however local authorities with jurisdiction have permitting and installation requirements that are discussed further in the “Resources for Parties Interested in Installation of Charging Resiliency Options” section below.

Real Estate Barriers

Most EVSPs informed PG&E they do not own the land upon which their charging site is located. Therefore, they cannot unilaterally decide whether or not to set aside additional space at the site for the installation of resiliency measures. EVSPs informed PG&E that many owners of real estate would likely not be in favor of reducing the number of parking spaces or altering existing landscaping in order to install temporary or permanent resiliency solutions. Decisions of this type would likely require thorough discussion and negotiation to come to an agreement pleasing all parties.

Interconnection Considerations

For EVSPs with existing energy storage co-located with charging stations, unless the batteries have previously been approved for interconnection to operate under islanding conditions, Electric Rule 21 requires that the energy storage will cease to function if the wider grid around it is de-energized. Obtaining approval to island would require further study and approval to operate in this manner.

¹⁰ <https://www.baaqmd.gov/permits/apply-for-a-permit/engine-permits/pssp>

Technical Barriers

PG&E spoke with at least one EVSP with energy storage systems installed at Level 3 charging sites. This EVSP stated that the energy storage systems are not installed to provide backup resiliency in the case of grid outages. In the event of an outage, the battery is designed to power down to comply with Rule 21 interconnection standards. PG&E was informed that additional technical protection measures would need to be added to allow these energy systems to island from the grid and provide resiliency to the chargers. Such measures would need to be studied to ensure safe interconnection and operation with PG&E's wider grid. Even if these capabilities were enabled through proper safety protection measures and then necessary studies conducted and approvals were given, this EVSP stated that the size of the energy storage systems would provide very little in the way of charging capacity given the number of high-powered chargers at these sites. This EVSP informed PG&E that it has no plans to seek this capability at these sites in the future.

Cost Barriers

The largest barrier discussed with EVSPs was the high cost of resiliency solutions, which is further exacerbated by the uncertainty regarding how often these solutions would need to be called into service. In the previous section, PG&E discussed the high costs associated with some potential resiliency options.

Resources for Parties Interested in Installation of Charging Resiliency Options

PG&E maintains a host of information on its website for parties who may be interested in the installation of resiliency resources, such as backup generation or energy storage systems.

Customers, including key EV charging infrastructure site hosts, interested in the installation of backup resources can find more information on the following page hosted on PG&E's website:

https://www.pge.com/en_US/large-business/clean-vehicles/battery-storage/battery-storage.page

An outline of the general process and key considerations for entities contemplating the installation of backup generation or resiliency options are listed below:

- What is the preferred operating condition of the generator/backup system during times of regular utility service? This will determine which process the customer will need to pursue
 - Potential operating conditions during regular utility service: Export to grid, serve onsite load, non-operational and backup only
- How quickly does the facility need to switch to backup power? This will determine if the customer needs to interconnect the generator or notify PG&E's Service Planning department that a backup generator is on site
 - Examples: Make before break (Hospitals that can't lose power), Break before make (PG&E's preferred method; power will be lost momentarily until system can transfer to backup mode)
- Apply for interconnection or backup generation status
 - Interconnection portals: egi-pge.com
 - If backup generation only, a customer should notify PG&E. This ensures PG&E is aware of your device and ensures greater workforce safety, especially in instances where PG&E employees may be working on an outage in your area. In some cases, PG&E line workers may ask to check your electric generator transfer switch for safety

- Continue through relevant interconnection process
- If studies, mitigations, inspection and commissioning testing are completed, receive Permission to Operate

To learn more, customers interested in installing backup generation or resiliency resources are encouraged to review PG&E's Distribution Interconnection Handbook, available here:

<https://www.pge.com/includes/docs/pdfs/shared/customerservice/nonpgeutility/electrictransmission/handbook/distribution-interconnection-handbook.pdf>

Next Steps

Evaluation of PSPS Mitigation Efforts on Key EV Charging Locations

As discussed in detail above, PG&E has taken many steps to mitigate impacts of PSPS events during the 2020 and future wildfire seasons. These mitigation efforts will likely have beneficial impact on EV charging facilities, including L3 chargers in key locations. Throughout the 2020 wildfire season, PG&E will evaluate the impacts of these mitigation efforts on key EV charging locations. PG&E will strive to work with EVSPs (subject to their approval and agreement) to assess the effectiveness of these solutions on charger utilization rates compared to a business as usual scenario (i.e., to evaluate the impacts of PSPS events on EVSP charging networks and key locations). This evaluation effort can help inform what additional resiliency efforts, if any, could be most beneficial for key charging locations. Furthermore, this research will help inform the Mobile DC Fast Charging Pilot that PG&E will initiate by the 2021 wildfire season by identifying key locations that may need additional resiliency efforts, such as those most heavily impacted by PSPS events historically and during the 2020 wildfire season.

Additional Research

In the coming months, PG&E intends to undertake further research of options that could be used to provide resiliency to L3 chargers, such as backup generation or energy storage. This research will primarily focus on the areas discussed above (i.e., Safety, Reliability, Affordability, Environmental Impact and Footprint Impact) yet involve more detailed and rigorous analysis to determine what options may best provide resiliency to L3 chargers in key locations. Further analyses and recommendations for these initiatives in 2021 will include a detailed cost-benefit and cost effectiveness analysis that takes into account all other PSPS and wildfire mitigation initiatives that support all customers, including EV customers.

Continued Coordination with EVSPs

PG&E will continue to hold discussions with EVSPs to learn of any resiliency efforts they plan to undertake during the 2020 wildfire season or in the future. Additionally, and per the Decision, PG&E is continuing coordination efforts to ensure that EV drivers are informed of charging availability.

Potential Future Key Charging Location Resiliency Pilot Project(s)

Based on the evaluation of PSPS mitigation efforts to date on key EV charging locations and the additional research described above, PG&E will determine the feasibility of undertaking limited pilot projects to test out potential resiliency options. Any pilot project(s) initiated would have the dual goals of allowing customers with EVs the ability to charge where they otherwise would not and developing learnings that can be shared with EVSPs interested in procuring resiliency for their key charging locations.

Should evaluation efforts render a pilot an appropriate next step, PG&E will coordinate with EVSPs and site hosts to further refine and scope necessary pilot elements. As a final step, PG&E will formally submit to the CPUC for approval any pilot project(s) it may seek to propose to aid in efforts to provide greater resiliency for key charging infrastructure in its service territory.

Mobile L3 Fast Charging Pilot

As directed by Decision 20-05-051, PG&E will pilot one or more mobile L3 fast charging solution in 2021.

PACIFIC GAS AND ELECTRIC COMPANY
APPENDIX D
CWSP WILDFIRE MITIGATION PLAN PROGRESS UPDATE

Appendix D – CWSP Wildfire Mitigation Plan Progress Update

Public Safety Power Shutoff (PSPS)

With more than half of the area where our customers live and work now at high risk for wildfires, PSPS is an important tool for keeping customers and communities safe. We understand shutoff events are also a hardship for our customers which is why we only turn off power when necessary to keep our customers safe. We continue to learn from past events and we are working to reduce the length of outages and number of people impacted, without compromising safety.

PSPS IMPROVEMENTS



SMALLER IN SIZE

Reduce the number of customers impacted by PSPS events by one-third compared to similar events in 2019



SHORTER IN LENGTH

Restore power to customers twice as fast targeting within 12 daylight hours after severe weather has passed



SMARTER FOR OUR CUSTOMERS

Provide more accurate and timely communications and additional resources and assistance before, during and after a PSPS event

SUPPORT FOR PEOPLE WITH DISABILITIES AND OLDER ADULTS



PG&E is working with the **California Foundation for Independent Living Centers** through a \$5 million grant to fund resources to help prepare for disasters and extended power outages. Examples include:



Portable backup power



Hotel vouchers and food stipends



Accessible transportation



Assistance with emergency preparedness and Medical Baseline applications



PG&E is also **collaborating with community-based organizations** to promote PSPS preparedness efforts, hosting an Access and Functional Need (AFN)-specific webinar and establishing a PSPS AFN Advisory Council.



This year, we are **broadening Medical Baseline enrollment** and working to update existing participant contact information. Due to COVID-19, participants can self-certify to enroll, making it easier to join or stay in the program.

OUTREACH AND ENGAGEMENT

210 STAKEHOLDER MEETINGS TO DATE

10 CUSTOMER WEBINARS COMPLETE

3,433 total attendees

30 WILDFIRE SAFETY WORKING SESSIONS COMPLETE

1,200+ participants*

*Including: Local governments, public safety partners, telecom, water agencies and other regional key stakeholders



PG&E is determined to do everything possible to address both the impact of the COVID-19 pandemic and the threat of major wildfires. In response to COVID-19, PG&E is adjusting our community outreach methods, Community Resource Center operation guidelines and Medical Baseline Program eligibility requirements. Additionally, we are assessing backup power needs for current and potential future auxiliary medical facilities.

PSPS COMMUNICATIONS

We provide advance notice before turning off power and provide updates until power is restored.

Timing of Notifications (at least once a day)



Customer Notifications

We will attempt to reach customers through:



Calls



Texts



Emails



Until contact is confirmed, we will **reach out to Medical Baseline participants every hour** and conduct site visits if necessary.

Agency Notifications

When possible, we will provide timely information to emergency service agencies in advance of notifying customers. PG&E's Emergency Operations Center will host daily **systemwide cooperator calls**. The call will be open to the following within PG&E's service territory:



Federal, state, local and tribal officials and agencies



Community-based organizations



Community choice aggregators



Telecom providers



Emergency hospitals



Publicly owned utilities



Water agencies

Additional Updates

PG&E's website (pge.com/pspsupdates) and social media, community-based organizations and media outlets will help keep customers updated.

Do you follow us?



Facebook: [@pacificgasandelectric](https://www.facebook.com/pacificgasandelectric)



Instagram: [pacificgasandelectric](https://www.instagram.com/pacificgasandelectric)



Twitter: [@PGE4Me](https://twitter.com/PGE4Me)

Some of the changes included in this document are contemplated as additional pre-cautionary measures intended to further reduce the risk of wildfires. 07/14/2020



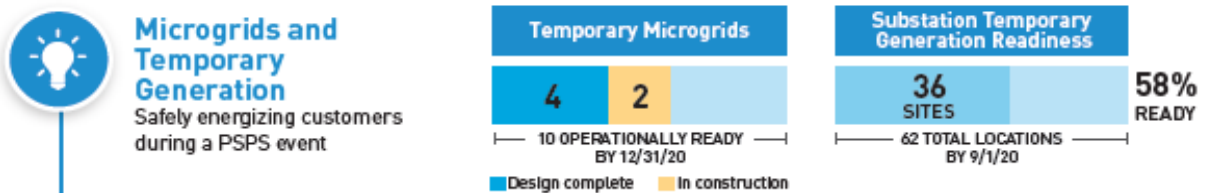
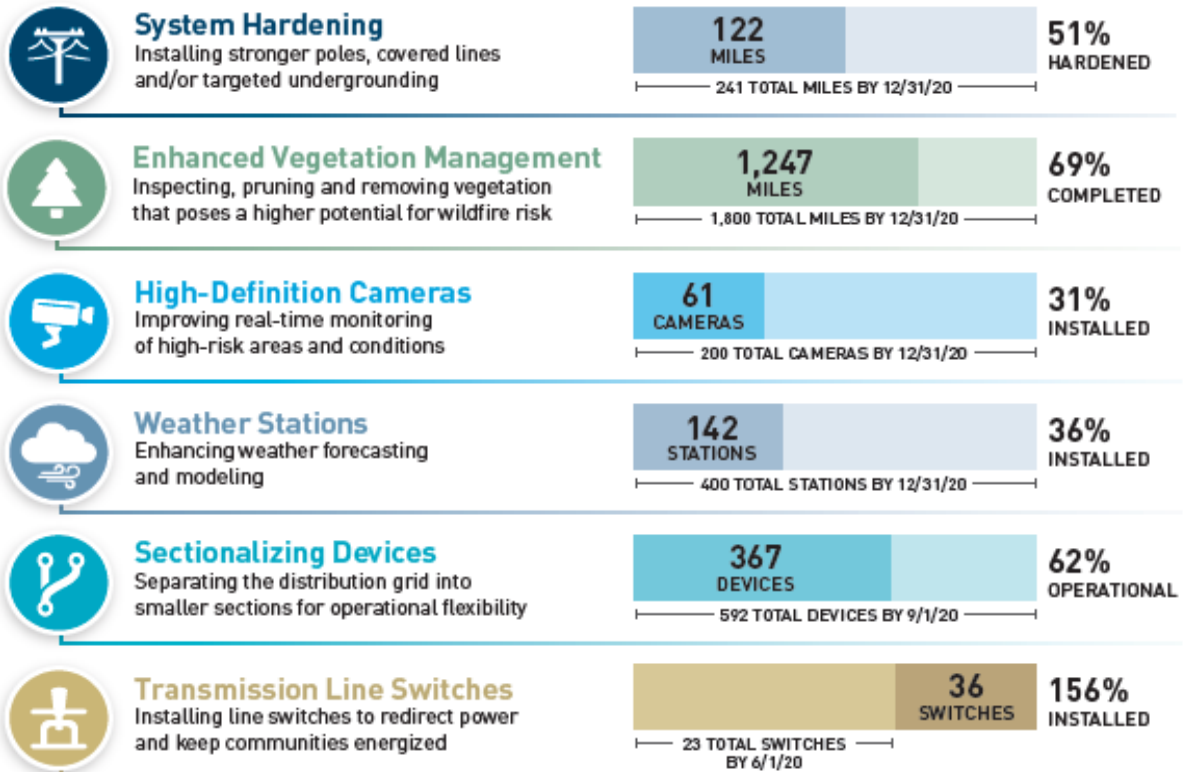
Community Wildfire Safety Program

Wildfire Mitigation Plan: 2020 Q2 Update

July 2020

On June 11, the California Public Utilities Commission conditionally approved PG&E's 2020 Wildfire Mitigation Plan. The plan expands and enhances the Community Wildfire Safety Program (CWSP) designed to address the growing threat of extreme weather and wildfires across PG&E's service area.

COMMUNITY WILDFIRE SAFETY PROGRAM STATUS - DATA THROUGH JUNE 30, 2020



Description	Megawatts Reserved
Temporary Microgrids and Substations: Enables portions of the electric grid to be quickly isolated from the larger grid and connected to backup power.	392 Mw
Community Resource Center and Backup Power Support: Provides backup generation for PG&E's Community Resource Centers and certain critical facilities (i.e. hospitals with ICUs, facilities supporting public safety, vote tabulation centers and other facilities being used for COVID-19 response) if their backup systems fail before or during an event.	67 Mw
Total Generation Reserved	458 Mw

1 Mw typically serves approximately 750 homes

Some of the changes included in this document are contemplated as additional precautionary measures intended to further reduce the risk of wildfires. 07/14/2020