



**Susan C. Martinez**  
Director of Liaison, Regulatory  
Operations and Engagement  
300 Lakeside Drive  
Oakland, CA 94612

January 2, 2024

**VIA ELECTRONIC MAIL**

Leslie Palmer  
Director, Safety and Enforcement Division  
California Public Utilities Commission  
505 Van Ness Avenue  
San Francisco, CA 94102

Dear Mr. Palmer:

As required by Resolution ESRB-8 and in accordance with Ordering Paragraph 1 of California Public Utilities Commission (CPUC) Decision (D.) 19-05-042, Pacific Gas and Electric Company (PG&E) respectfully submits this report for the potential December 15, 2023 PSPS event. Note that PG&E did not ultimately de-energize customers. This report has been verified by a PG&E officer in accordance with Rule 1.11 of the Commission's Rules of Practice and Procedure.

If you have any questions, please do not hesitate to call.

Sincerely,

A handwritten signature in cursive script that reads 'Susan C. Martinez'. Below the signature is a horizontal line.

Susan C. Martinez  
Director of Liaison, Regulatory Operations and Engagement

Enclosures

cc: Anthony Noll, SED  
[ESRB\\_ComplianceFilings@cpuc.ca.gov](mailto:ESRB_ComplianceFilings@cpuc.ca.gov)  
[EnergyDivisionCentralFiles@cpuc.ca.gov](mailto:EnergyDivisionCentralFiles@cpuc.ca.gov)

**Pacific Gas and Electric Company**  
**Public Safety Power Shutoff (PSPS) Report to the CPUC**  
**Potential December 15, 2023 De-energization**

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**PG&E Public Safety Power Shutoff (PSPS) Report to the CPUC  
Potential December 15, 2023 De-energization**

**Section 1 – Summary and Overview**

**Section 1.1 - Brief description of the PSPS event starting from the time when the utility's Emergency Operation Center is activated until service to all customers have been restored.**  
*(D.21-06-014, page 286, SED Additional Information.)*

**Response:**

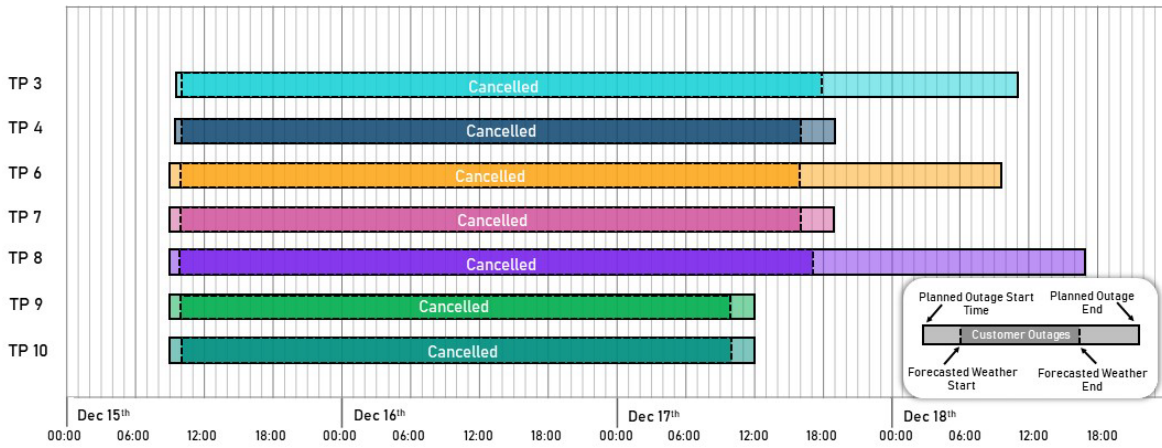
High winds can cause tree branches and debris to contact energized electric lines, and potentially damage our equipment and cause a wildfire. As a result, we may need to turn off power during severe weather to help prevent wildfires. This is called a Public Safety Power Shutoff (PSPS). PG&E will not take any chances with customer safety. For the safety of our customers and communities, PSPS continues to be a necessary tool as a last resort. We know that turning off the power disrupts lives, and do not take this decision lightly.

On December 12, 2023, PG&E's Meteorology Team identified a potential fire weather event in weather forecast models and notified the acting Emergency Operations Center (EOC) Commander. On December 13, 2023, we activated our EOC for a potential PSPS and began notifying Public Safety Partners. On December 14 and December 15, 2023, we further refined the PSPS scope based on updated meteorological forecasts, notified Public Safety Partners and customers in the potentially impacted areas, readied the grid, and prepared Community Resource Centers (CRCs) and other customer support.

We also coordinated with Southern California Edison (SCE), as their customers served by a PG&E circuit were in scope for de-energization. Throughout this EOC activation, we were in constant contact related to scope and notifications for these areas. Customers within this scenario is referred to as "shared customers."

We closely monitored weather conditions across seven Time Places (TPs), as shown in Figure 1 below, but ultimately PG&E decided not to move forward with de-energizing customers, due to favorable weather conditions.

**Figure 1: Event Map and Timeline**



**Section 1.2 - A table including the maximum numbers of customers notified and actually de-energized; number of counties de-energized; number of Tribes de-energized; number of Medical Baseline customers de-energized; number of transmission and distribution circuits de-energized; damage/hazard count; number of critical facilities and infrastructure de-energized. Hazards are conditions discovered during restoration patrolling or operations that might have caused damages or posed an electrical arcing or ignition risk had PSPS not been executed (D.21-06-034, Appendix A, page A15, SED Additional Information.)**

**Response:**

Table 1 below identifies the maximum number of customers notified and de-energized; number of Tribes de-energized; number of counties de-energized; number of Medical Baseline (MBL) program customers de-energized; number of transmission and distribution circuits de-energized; damage/hazard count; and number of critical facilities and infrastructure de-energized.

**Table 1: Customers Notified and De-energized**

Total Customers			MBL Customers	Number of Counties	Number of Tribes	Number of Circuits			Damage / Hazard Count <sup>1</sup>	Critical Facilities and Infrastructure De-energized <sup>2</sup>
Notified	De-energized <sup>3</sup>	Cancelled	De-energized <sup>4</sup>	De-energized <sup>5</sup>	De-energized <sup>6</sup>	Transmission De-energized <sup>7</sup>	Unique Distribution Circuits in Any Version of Scope	Distribution Circuits De-energized <sup>8</sup>		
916	N/A	915 <sup>9</sup>	N/A	N/A	N/A	N/A	11	N/A	N/A	N/A

**Section 1.3 - A PDF map depicting the de-energized area(s) (SED Additional Information.)**

**Response:**

PG&E did not de-energize customers, therefore, Section 1.3 is not applicable.

<sup>1</sup> PG&E did not de-energize customers, therefore Damages/Hazards Counts are not applicable.

<sup>2</sup> PG&E did not de-energize customers, therefore Critical Facilities and Infrastructure is not applicable.

<sup>3</sup> PG&E did not de-energize customers, therefore total customers de-energized is not applicable.

<sup>4</sup> PG&E did not de-energize customers, therefore MBL customers de-energized is not applicable.

<sup>5</sup> PG&E did not de-energize customers, therefore number of counties is not applicable.

<sup>6</sup> PG&E did not de-energize customers, therefore number of Tribes is not applicable.

<sup>7</sup> PG&E did not de-energize customers, therefore transmission lines de-energized is not applicable.

<sup>8</sup> PG&E did not de-energize customers, therefore distribution circuits de-energized is not applicable.

<sup>9</sup> One PG&E customer ended service during the potential December 15, 2023 PSPS, therefore, this customer did not receive a cancellation notification.

## Section 2 – Decision Making Process

**Section 2.1 - A table showing all factors considered in the decision to shut off power for each circuit de-energized, including sustained and gust wind speeds, temperature, humidity, and moisture in the vicinity of the de-energized circuits (*Resolution ESRB-8, page 3, SED Additional Information.*)**

### **Response:**

Please see Appendix A for a list of factors that were considered in the decision to not de-energize each of the circuits in scope for the December 15, 2023 potential PSPS.

**Section 2.2 - Decision criteria and detailed thresholds leading to de-energization including the latest forecasted weather parameters versus actual weather. Also include a PSPS decision-making diagram(s)/flowchart(s) or equivalent along with narrative description (*D.19-05-042, Appendix A, page A22, D.21-06-014, page 284, SED Additional Information.*)**

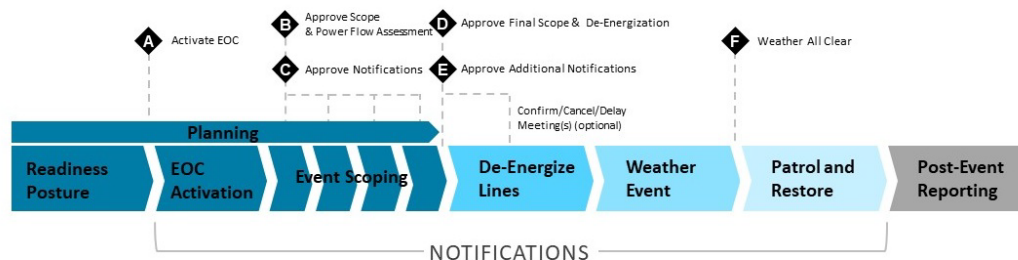
### **Response:**

This section provides an overview of the criteria and threshold evaluation process that was ultimately used in the decision to not de-energize the December 15, 2023 potential PSPS.

### PSPS Preparation and Scoping Process

At a high-level, Figure 2 below shows the process used to prepare for a potential PSPS. Appendix A includes anticipated parameters based on the latest meteorological forecasts used to develop the planned de-energization scope versus actual weather parameters for each circuit.

**Figure 2: PG&E's High-level PSPS Process Steps**



PG&E considers executing a potential PSPS when strong gusty winds, critically low humidity levels, and low fuel moisture levels pose an unacceptable risk of causing fast-spreading, catastrophic wildfires. Assessment begins several days before the weather event is forecasted to take place.

We identify the weather conditions that could create high fire potential by using a combination of high outage and ignition potential, high-resolution internal and external weather forecasting models and data from federal agencies that include the following:

- Ignition Probability Weather (IPW): Determines the historical potential for ignitions from each analyzed weather event.
- Fire Potential Index (FPI): Assists with fire model development and calibration.
- Technosylva: Provides fire spread modeling via data inputs.
- PSPS models: Provides guidance for operation decision-making.

Through partnerships with external experts, we developed our machine learning models using historic datasets and advanced forecast models that provide a better understanding of historical weather events and improve our weather forecasting. These models use the following:

- Precise location data points across our service area to conduct hourly weather analyses using high-resolution, historical data.
- Over 100 trillion data points of historical weather and fuel.
- Hourly weather data such as temperature, relative humidity, wind speed, precipitation, pressure, and dead and live fuel moisture.
- Data storage and processing via the PG&E-Amazon Web Services Cloud.

Our thresholds and guidance for identifying critical fire risk and outage/ignition potential are determined by analyzing and rigorously testing our current PSPS protocols and criteria through three decades of historical weather data in and around California. This process allows us to determine and test if historical fires from utility equipment may have been mitigated through PSPS while simultaneously understanding the scope and scale of PSPS events and customer impacts from PSPS.

External forecast information from the National Weather Service (NWS) (e.g., Red Flag Warnings) and other forecast agencies are examined carefully. Furthermore, we coordinate with these agencies during high-risk periods via daily conference calls to ultimately decide whether to de-energize portions of the grid for public safety. The main drivers considered for PSPS under the PSPS Protocols are described in the sections that follow.

### Tools and Technology

PG&E has developed tools and models to better understand the impact of potential fire ignitions on communities. PG&E partners with Technosylva, an external expert in the wildfire modeling field to test and deploy cloud-based wildfire spread model capabilities. This helps us better understand where we might need to turn off power.

Each day, PG&E delivers our wildfire conditions datasets to Technosylva, who then perform over 100 million fire spread simulations. These are done every three hours, for the upcoming five days. These simulations provide fire spread scenarios that help to identify circuits that may be at risk during dry, windy weather.

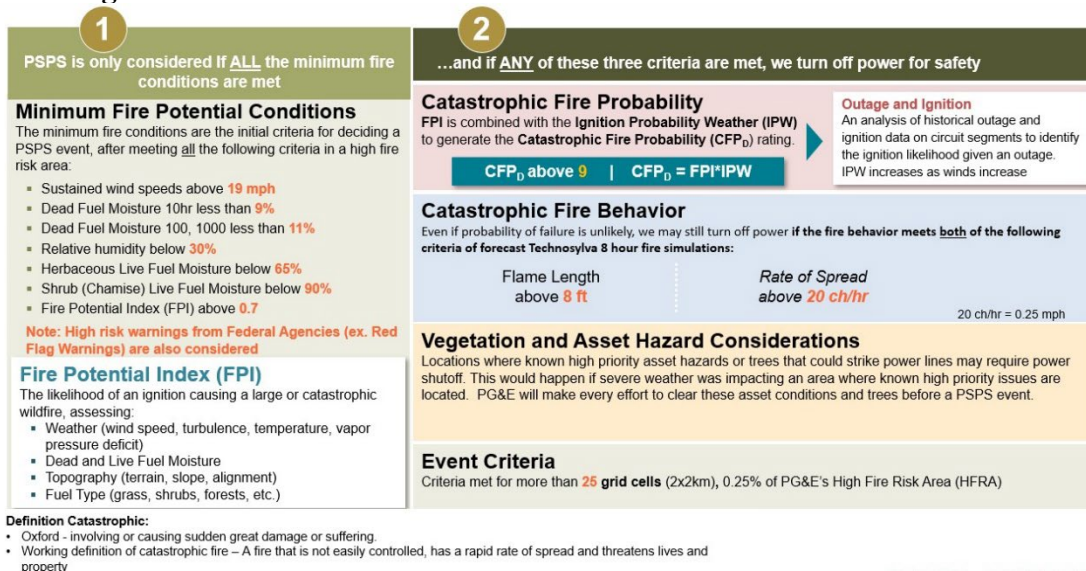
### Decision Criteria and Thresholds for PSPS Protocols: Distribution

When determining whether to turn off power for safety, we start with the distribution system. These powerlines are closer to communities and are generally more susceptible to dry, windy weather threats. The values presented here were developed using 10 years of PG&E's high-resolution climate data to help understand wildfire risk and the potential customer impacts of PSPS. Each of the three measures is evaluated within a small geographic area (four square kilometers) and if any of the measures are forecasted to be met, circuit segments within that area



are scoped for de-energization. With powerlines traveling long distances, customers outside the affected area may also be impacted. This process is outlined in Figure 3 below.

**Figure 3: Decision Criteria and Thresholds for PSPS Protocols: Distribution**



### Step 1: Minimum Fire Potential Conditions

The first step to determine the scope of a PSPS is evaluating the Minimum Fire Potential Conditions (mFPC). This ensures that PSPS is only executed during wind events when atmospheric conditions and fuels are dry. A PSPS is evaluated if the following mFPC are true in the High Fire Risk Areas (HFRA)<sup>10</sup>:

- Sustained wind speeds above 19 mph
- Dead fuel moisture 10-hr less than 9%<sup>11</sup>
- Dead fuel moisture 100-hr, 1000-hr less than 11%<sup>12</sup>
- Relative humidity below 30%
- Herbaceous live fuel moisture below 65%
- Shrub (Chamise) Live Fuel Moisture below 90%
- FPI (the probability of large or catastrophic fires given an ignition) above 0.7

These values were established from an examination of historical fire occurrence in the PG&E service area, PSPS sensitivity studies using historical data viewed through the lens of both customer impacts and wildfire risk mitigated, as well as information published by federal agencies regarding fire behavior and criteria used to issue warnings to the public.

<sup>10</sup> [2023 Wildfire Mitigation Plan \(WMP\), pp. 895-897.](#)

<sup>11</sup> 10-hr. Dead Fuel Moisture represents the modeled moisture content in dead fuels in the 0.25 to 1-inch diameter class and the layer of the forest floor about one inch below the surface.

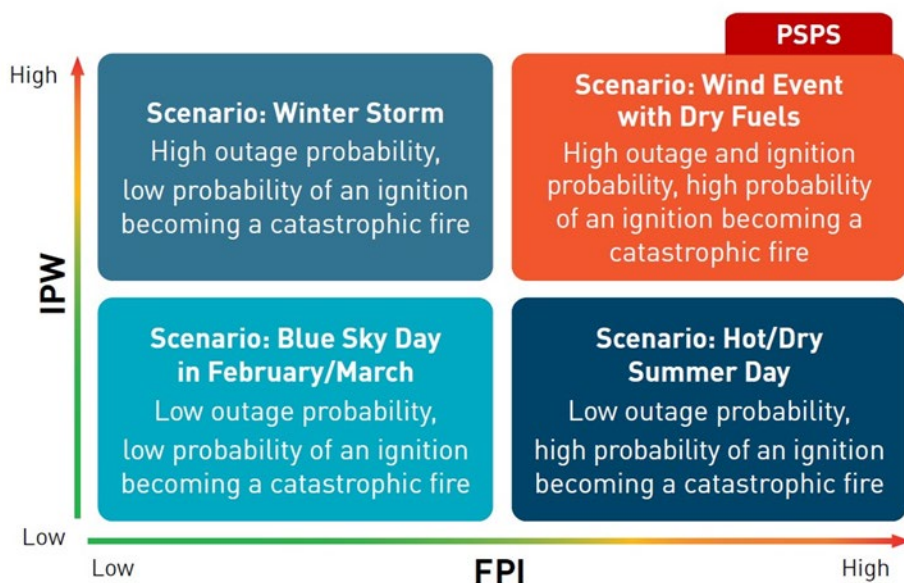
<sup>12</sup> 100-hr. Dead Fuel Moisture represents the modeled moisture content of dead fuels in the 1-to-3-inch diameter class. It can also be used as a very rough estimate of the average moisture content of the forest floor from 0.75 inches to 4 inches below the surface.

## Step 2: In-Depth Review of Fire Risk

If all minimum fire conditions are met, we conduct an in-depth review of fire risk using three separate measures. If the criteria for any of these measures are met, we may need to turn off power for safety.

- **Catastrophic Fire Probability (CFP):** This model combines the probability of fire ignitions due to weather impacting the electric system with the probability that a fire will be catastrophic if it starts. It is the combination of the FPI Model and the IPW Model. The CFP<sub>D</sub> model accounts for changes over time based on actual performance data. Thus, the model will address positive and negative trends in grid performance and reliability year-over-year, incorporating grid improvements such as system hardening, and enhanced vegetation management based on their performance at mitigating outages over time.
  - **IPW Model:** A machine learning model that uses 10 years of weather data to correlate approximately 500,000 outages occurring on PG&E's distribution grid. The model analyzes the potential for several types of power outages in a given weather event, as well as the potential for that outage to be the source of an ignition. IPW learns from and accounts for changes on the grid from year-to-year.
  - **FPI Model:** This model outputs the probability that a fire will become large or catastrophic and is used as a daily and hourly tool to drive operational decisions to reduce the risk of utility caused fires. It was enhanced in 2021 with additional data and improved analytic capabilities.
- **Tree Considerations:** Our PSPS protocols utilize a machine learning model to integrate the potential for trees to strike the lines into our IPW Model. This helps our meteorology teams more accurately analyze the risk posed by trees and how that translates to increased ignition probability. The graph featured in Figure 4 below shows how PG&E ranks scenarios based on the IPW risk and the FPI value. Scenarios with a high risk of an IPW and a high FPI value will always warrant a PSPS. However, power may be turned off in other scenarios to avoid catastrophic wildfires.

**Figure 4: Catastrophic Fire Probability Model**



- Catastrophic Fire Behavior (CFB): We also consider environmental conditions of significant wildfires, like dead and dying trees or drought conditions when determining to de-energize customers. This allows us to capture potential ignition events that are rarer and more difficult to forecast, such as animal contact and external debris impacting electrical lines. These locations are only considered once the mFPC are met. This is based on fire spread simulations using dynamic weather and fuel data for the event.
  - Fireline Intensity: The U.S. Forest Service Rocky Mountain Research Station did a study of fire line intensity which is determined by the size and components of flames. It is measured as the rate of heat energy released (Btu) per unit length of the fire line (ft) per unit(s). It is also calculated by estimating the flame length, which is the distance measured from the average flame tip to the middle of the base of the fire. We use probable fire line intensity to evaluate the potential need to turn off power.
- Vegetation and Electric Asset Criteria Considerations: We review locations from recent inspections where high-priority trees or electric maintenance status may increase the risk of ignition. If an area is forecast to experience minimum fire conditions and there are known issues with equipment or vegetation that have not yet been addressed, we may need to turn off power.

#### After Determining the Outage Area for Distribution and Transmission

After determining the outage area for Distribution and Transmission, PG&E reviews the forecasted customer impacts of each circuit against the forecasted wildfire risk of each circuit. If there's reasonable risk for ignition on the distribution circuits or transmission lines during the forecasted weather event, it is included in the PSPS scope. We then share this analysis internally during key decision-making points to inform PSPS decision making and further risk modeling.

Starting 12 hours before the forecasted PSPS de-energization time, we transition from evaluating forecast data to observing the weather in real-time. Based on real-time observations and analysis, we continually evaluate all the outage areas identified in the previous steps to determine whether to initiate PSPS de-energization. PG&E also uses external tools and analysis to provide input to the decision to de-energize, as described in the next sections.

#### Decision-Making and Analysis to Validate if PSPS is Necessary

During high-risk periods, PG&E Meteorologists participate in daily interagency conference calls that commonly include multiple NWS local offices, the NWS western region headquarters, and representatives from the Geographic Area Coordination Center (GACC), also known as Predictive Services. This call is hosted by the Northern California and/or Southern California GACC offices.

During these calls, the external agencies present their expert assessment on the upcoming periods and locations of risk, wind speeds and fuel moisture levels, and any other relevant factors to consider. PG&E appreciates these conference calls and the opportunity to coordinate with external and independent forecast agencies on upcoming risk periods.

During a PSPS, PG&E's Lead Meteorologist for the event, called the Meteorologist-in-Charge (MIC), summarizes these forecasts and discussions for the PG&E Officer-in-Charge (OIC), who ultimately makes the decision to execute a PSPS. If external agencies are not in agreement with PG&E's analysis and do not see an upcoming event as high risk for large fires, the OIC may use this intelligence to decide if a PSPS is warranted.

The following sources and tools are considered before initiating a PSPS by the MIC:

- Fire Weather Watches and Red Flag Warning (NWS - Federal)
- Significant fire potential for wind (GACC - Federal)
- Storm Prediction Center (part of NOAA - Federal)
- Daily interagency conference call with agencies during high-risk periods
- Live weather data from weather stations
- Location of existing fires
- External weather model data

Based on the above analyses, we can determine how many customers may be subject to de-energization, and further investigate mitigation options, such as, advanced switching solutions, sectionalization, the use of islanding, alternative grid solutions, and temporary generation to support customers who could lose upstream power sources but are in areas that may be safe to keep energized.

We monitor and forecast weather over a multi-day horizon, so we can anticipate when a PSPS may be needed and activate our EOC as far in advance as possible. Our internal weather model and external modeling are updated multiple times per day. PG&E's meteorology team constantly evaluates both internal and external weather models for changes in weather event timing, strength, and potential locations impacted; our meteorology then incorporates these changes into a new weather scope generally once per day.

Weather shifts may force changes to PSPS scope and impacts at any point in time during PSPS planning and execution; this may allow us to avoid de-energization in some areas if fire-critical conditions lessen but can also cause some areas and customers to move into de-energization scope late in the process if forecasted fire-critical weather footprints change or increase. Possible changes in PSPS scope and impact are driven by the inherent uncertainty in weather forecast models.

PG&E utilized and referenced these protocols and tools during the December 15, 2023 potential PSPS to determine the latest forecasted weather parameters versus actual weather. Additional information is included in Appendix A.

**Section 2.3 - A thorough and detailed description of the quantitative and qualitative factors it considered in calling, sustaining, or curtailing each de-energization event including any fire risk or PSPS risk modeling results and information regarding why the de-energization event was a last resort, and a specification of the factors that led to the conclusion of the de-energization event. (D.20-05-051, Appendix A, page 9, SED Additional Information.)**

**Response:**

The quantitative factors that was used in the decision to not de-energize customers for safety is

provided in Appendix A. A detailed description of the qualitative factors that were provided by our Meteorologists when determining not to de-energize customers is outlined below.

#### PG&E Meteorology Team Review

On Tuesday, December 12, 2023, some weather forecast models began to show the potential for a dry, southerly wind event in the Tehachapi and Santa Ynez mountains, developing on December 15, 2023 and potentially lasting through the weekend. PG&E's Meteorology team, Emergency Preparedness and Response team, and EOC Commander met to discuss the potential event. Based on the emerging risk of a PSPS, PG&E entered EOC readiness posture on December 12, 2023, at 1800 PST and activated the EOC on December 13, 2023, at 0600 PST.

In the days leading up to the potential PSPS, PG&E's Meteorology team continued to monitor and adjust scope to account for the changing forecast models and agency forecast. The South Ops predictive services forecasted low risk for significant fire during the period and did not host an interagency call for the weekend weather. The Hanford office of the NWS did not issue any Fire Weather Watches, Red Flag Warnings, Wind Warnings or Wind Advisories. PG&E Meteorology proactively called both Hanford and South Ops Predictive Services and both indicated no fire weather concerns with the event. In fact, forecast discussions from the Hanford weather office did not mention winds across the Tehachapi mountains until the wind had materialized on the day of. PG&E continued to monitor external forecasts in case they escalated their fire weather products, which did not occur. Additionally, PG&E meteorology coordinated with SCE as they tracked a potential PSPS for their customers adjacent to our territory in Kern County with similar timing.

During monitoring, winds were gusty across isolated peaks, ridges and the bottom of the Grapevine in Kern County but did not reach levels warranting a PSPS. Winds also generally materialized lighter than forecast. On December 15, at 1652 PST, TPs eight, nine and ten were cancelled as winds had not materialized in those areas and the modeling indicated that the peak of the event had passed. On December 16, at 1009 PST, all remaining TPs (three, four, six and seven) were cancelled, as conditions continued to improve for the remaining event scope.

#### High Resolution PSPS Models Guidance

The tools and models outlined in Section 2.2 are part of the decision criteria that PG&E's Meteorologists consider for the scope of PSPS. Longer range weather forecast model data are used to determine the location and timing of a PSPS. Typically, these weather forecasts are less certain the farther the observed date. This is akin to the well-known hurricane "cone of uncertainty" in which the potential track of a hurricane is represented by an area that expands farther out in time, which resembles an expanding cone. Thus, there is an inherent tradeoff between the further out the forecasts are for a PSPS and the uncertainty in the PSPS scope and waiting until forecasts become more certain. This ultimately leads to changes in PSPS scope as weather forecast models are updated and the scope is refined.

During PSPS events, PG&E's Meteorologists track weather forecasts over time and compare weather forecast models against one another to gauge the level of uncertainty in the forecast. Forecasts of PSPS are routinely updated ahead of the PSPS.

As the event unfolds in real-time, PG&E's Meteorologists transition to real-time observations of weather stations, satellite data, pressure gradients, and live feeds from Alert Wildfire Camera. These observations help to evaluate if the event is unfolding as expected. In many instances,

models trend stronger or weaker with each model iteration leading up to a PSPS. This dictates changes in event scope and decisions to de-energize or cancel areas.

**Section 2.4 - An explanation of how the utility determined that the benefit of de-energization outweighed potential public safety risks, and analysis of the risks of de-energization against not de-energizing. The utility must identify and quantify customer, resident, and the general public risks and harms from de-energization and clearly explain risk models, risk assessment processes, and provide further documentation on how the power disruptions to customers, residents, and the general public is weighed against the benefits of a proactive de-energization (D.19-05- 042, Appendix A, page A24, D.21-06-014, page 284, SED Additional Information.)**

**Response:**

PG&E did not de-energize customers, therefore, Section 2.4 is not applicable.

**Section 2.5 - Explanation of alternatives considered and evaluation of each alternative. (D.19-05-042 Appendix A, page A22.)**

**Response:**

PG&E did not de-energize customers, therefore, Section 2.5 is not applicable.

### **Section 3 – De-energized Time, Place, Duration and Customers**

**Section 3.1 - The summary of time, place and duration of the event, broken down by phase if applicable** (*Resolution ESRB-8 page 3, SED Additional Information.*)

**Response:**

PG&E did not de-energize customers, therefore, Section 3.1 is not applicable.

**Section 3.2 - A zipped geodatabase file that includes PSPS event polygons of de-energized areas. The file should include items that are required in Section 3.3. (SED Additional Information.)**

**Response:**

PG&E did not de-energize customers, therefore, Section 3.2 is not applicable.

**Section 3.3 - A list of circuits de-energized, with the following information for each circuit. This information should be provided in both a PDF and excel spreadsheet** (*Resolution ESRB-8, page 3, SED Additional Information.*)

- **County**
- **De-energization date/time**
- **Restoration date/time**
- **“All Clear” declaration date/time**
- **General Order (GO) 95, Rule 21.2-D Zone 1, Tier 2, or Tier 3 classification or non-High Fire Threat District**
- **Total customers de-energized**
- **Residential customers de-energized**
- **Commercial/Industrial Customers de-energized**
- **Medical Baseline (MBL) customers de-energized**
- **AFN other than MBL customers de-energized**
- **Other Customers**
- **Distribution or transmission classification**

**Response:**

PG&E did not de-energize customers, therefore, Section 3.3 is not applicable.

## **Section 4 – Damages and Hazards to Overhead Facilities**

**Section 4.1 – Description of all found wind-related damages or hazards to the utility’s overhead facilities in the areas where power is shut off.** (*Resolution ESRB-8, page 3, SED Additional Information.*)

**Response:**

PG&E did not de-energize customers, therefore, Section 4.1 is not applicable.

**Section 4.2 - A table showing circuit name and structure identifier (if applicable) for each damage or hazard, County that each damage or hazard is located in, whether the damage or hazard is in a High Fire-Threat District (HFTD) or non-HFTD, Type of damage/hazard of damage.** (*SED Additional Information.*)

**Response:**

PG&E did not de-energize customers, therefore, Section 4.2 is not applicable.

**Section 4.3 - A zipped geodatabase file that includes the PSPS event damage and hazard points. The file should include items that are required in Section 4.2.** (*SED Additional Information.*)

**Response:**

PG&E did not de-energize customers, therefore, Section 4.3 is not applicable.

**Section 4.4 - A PDF map identifying the location of each damage or hazard.** (*SED Additional Information.*)

**Response:**

PG&E did not de-energize customers, therefore, Section 4.4 is not applicable.



## **Section 5 – Notifications**

**Section 5.1 - A description of the notice to public safety partners, local/tribal governments, paratransit agencies that may serve all the known transit- or paratransit-dependent persons that may need access to a community resource center, multi-family building account holders/building managers in the AFN community, and all customers, including the means by which utilities provide notice to customers of the locations/hours/services available for CRCs, and where to access electricity during the hours the CRC is closed. (Resolution ESRB-8, page 3. D21-06-034, Appendix A, page A2, A9-A10, SED Additional Information.)**

### **Response:**

Throughout EOC activation, PG&E made significant efforts to notify Tribal/Local Governments, Public Safety Partners, Community Based Organizations (CBOs) (including paratransit agencies) and impacted customers in accordance with the CPUC PSPS Phase 1 Guidelines.<sup>13</sup>

PG&E followed the Notification Plan discussed in our 2023 Pre-Season Report. This information can be found in [PG&E's 2023 Pre-Season Report, Appendix C: Notification Plan](#), pg. 50-60. In addition to the processes noted in the plan, PG&E completed the following:

- PG&E worked closely with telecommunications service providers leading up to potential de-energization to effectively coordinate, share information, and manage the potential PSPS. PG&E also provided telecommunications service providers with a dedicated PG&E contact in the EOC known as the Critical Infrastructure Lead (CIL), who shared up-to-date event information and answered specific, individual questions. These partners could reach the CIL 24/7 during an event by e-mail or phone. In addition, PG&E proactively reached out to six telecommunications service providers<sup>14</sup> via email or phone as weather changes or new information regarding the PSPS became available.
- In accordance with the Phase 3 PSPS Guidelines<sup>15</sup>, PG&E provided proactive notifications and impacted zip code information to paratransit agencies that served known transit- or paratransit-dependent persons that may have needed access to a CRC during a PSPS. All notifications to paratransit agencies included a link to the PSPS emergency website event updates page, [pge.com/pspsupdates](http://pge.com/pspsupdates) and a section called “Additional Resources” with a link to a map showing areas potentially affected by the shutoff. This site also directs users to other webpages, such as the CRC page, which includes CRC information such as locations, hours, and services available for CRCs (see Section 9). The PSPS emergency website event updates page also includes two prominent buttons at the top of the page, allowing customers to look up an address to determine if it could be impacted, as well as to the map showing areas potentially affected by the shutoff.
- PG&E considers multi-family building account holders/building managers in the Access and Functional Needs (AFN) community as part of our All Customers (including MBL program customers and Self Identified Vulnerable [SIV]<sup>16</sup> customers) recipient group.

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<sup>13</sup> D.19-05-042.

<sup>14</sup> American Tower, Crown Castle, AT&T, Verizon, T-Mobile, Frontier.

<sup>15</sup> D.21-06-034.

<sup>16</sup> Self Identified Vulnerable (SIV) is inclusive of customers who have indicated they are “dependent on electricity for durable medical equipment or assistive technology” as well as customers that are not enrolled or qualify for the MBL program and “certify that they have a serious illness or condition that could become life threatening if service is disconnected.” In accordance with D.21-06-034, PG&E includes customers who have indicated they are “dependent on electricity for durable

For information on PG&E’s outreach and community engagement with master-metered owners, property managers, and building account holders, refer to [PG&E’s AFN Quarterly Progress](#) Report of activities between April 1, 2023, and June 30, 2023.

During this potential PSPS, SCE identified five SCE customers on PG&E’s Tejon 1102 circuit. SCE and PG&E collaborated closely to ensure situational awareness of the potential de-energization and successfully execute PSPS notifications to these customers.

Table 2 below provides a description of the notifications PG&E sent to Tribal/Local Governments Public Safety Partners, and all customers in accordance with the minimum timelines set forth by the CPUC PSPS Phase 1 Guidelines<sup>17</sup>.

**Table 2: Notification Descriptions**

Type of Notification	Recipients	Description
<b>PRIORITY NOTIFICATION:</b> <b>48-72 hours in advance of anticipated de-energization</b>	Public Safety Partners and CBOs	<p>Following PG&amp;E’s activation of its EOC, the following was completed:</p> <ul style="list-style-type: none"> <li>• PG&amp;E’s Meteorology Team noted a potential PSPS and updated the weather forecast on <a href="http://pge.com/weather">pge.com/weather</a> to “elevated” in certain parts of the service area.</li> <li>• PG&amp;E submitted a PSPS Notification Form to Cal OES and sent an e-mail to the CPUC notifying them that PG&amp;E’s EOC has been activated and that PG&amp;E is monitoring for potential PSPS.</li> <li>• PG&amp;E sent notifications to other Public Safety Partners<sup>18</sup> via call, text and e-mail; these notifications included the following information: <ul style="list-style-type: none"> <li>○ Estimated window of the de-energization time.</li> <li>○ When weather is anticipated to pass.</li> <li>○ Estimated Time of Restoration (ETOR).</li> <li>○ Links to the PSPS Portal where event-specific maps and information are available.</li> </ul> </li> <li>• Local PG&amp;E representatives called potentially impacted County OES and select Tribes to inform them that PG&amp;E is monitoring an increased potential of PSPS.</li> </ul>
<b>WATCH NOTIFICATION:</b> <b>24-48 hours in advance of</b>	Public Safety Partners, CBOs, and All Customers	<p>During this time, the following was completed:</p> <ul style="list-style-type: none"> <li>• PG&amp;E submitted a PSPS Notification Form to Cal OES.</li> </ul>

medical equipment or assistive technology” in an effort to identify customers “above and beyond those in the MBL population” to include persons reliant on electricity to maintain necessary life functions including for durable medical equipment and assistive technology. This designation remains on their account indefinitely.

<sup>17</sup> D.19-05-042.

<sup>18</sup> Other Public Safety Partners refers to first/emergency responders at the local, state, and federal level, water, wastewater, and communication service providers, affected CCAs, publicly-owned utilities/electrical cooperatives, and the California Department of Forestry and Fire Protection.

<p><b>anticipated de-energization</b></p>	<p>(including MBL program customers and SIV customers)</p>	<ul style="list-style-type: none"> <li>• PG&amp;E sent notifications to other Public Safety Partners, and all customers via call, text message and e-mail; these notifications included the following information: <ul style="list-style-type: none"> <li>○ Estimated window of the de-energization time.</li> <li>○ When the adverse weather is anticipated to pass.</li> <li>○ ETOR.</li> <li>○ For Public Safety Partners only: Links to the PSPS Portal.</li> <li>○ For Customers only: Potentially impacted addresses, links to PSPS Updates webpage with CRC information, and resources AFN customers, including but not limited to information on the MBL program, language support, and the Portable Battery Program.</li> </ul> </li> <li>• PG&amp;E sent notifications to MBL program customers, including tenants of master metered accounts, and SIV customers every hour until the customer confirmed receipt of the notification.</li> </ul> <p>Customer notifications were provided in English, with information on how to get event information in 15 non-English languages, referred to herein as “translated languages”<sup>19</sup>. Customers with their language preference selected in their PG&amp;E accounts received in-language (translated) notifications. Public Safety Partner notifications were provided in English.</p>
<p><b>WARNING NOTIFICATION: 1-4 hours in advance of anticipated de-energization, if possible</b></p>	<p>Public Safety Partners, CBOs, and All Customers (including MBL program customers, SIV customers)</p>	<p>During this time, the following was completed:</p> <ul style="list-style-type: none"> <li>• PG&amp;E submitted a PSPS Notification Form to Cal OES and sent an e-mail to the CPUC notifying them that PG&amp;E has made the decision to de-energize.</li> <li>• PG&amp;E sent notifications to other Public Safety Partners, and customers; these notifications included the same key event timing information and resource links as the “Watch Notification.”</li> <li>• PG&amp;E sent notifications to MBL program customers, including tenants of master metered</li> </ul>

<sup>19</sup> Translated languages refers to Spanish, Chinese (Mandarin and Cantonese), Vietnamese, Tagalog, Korean, Russian, Arabic, Punjabi, Farsi, Japanese, Khmer, Hmong, Thai, Hindi, and Portuguese. A language is prevalent if it is spoken by 1,000 or more persons in the utility’s territory or if it’s spoken by five percent or more of the population within a “public safety answering point” in the utility territory (D.20-03-004). Details on the community outreach efforts for PSPS and wildfire-related outreach including efforts to reach all languages prevalent in PG&E’s service area can be found in [PG&E’s 2023 Pre-Season Report Notification Plan](#); pg. 20-23.

		<p>accounts, and SIV customers every hour until the customer confirmed receipt of the notification.</p> <p>Customer notifications were provided in English, with information on how to get event information in translated languages. Customers with their language preference selected in their PG&amp;E accounts received in-language (translated) notifications. Public Safety Partner notifications were provided in English.</p>
<p><b>CANCELLATION NOTIFICATION: Within 2-hours of decision to cancel</b></p>	<p>Public Safety Partners, CBOs, All Customers (including MBL program customers, SIV customers)</p>	<p>When it was determined that de-energization was not needed for safety, the following was completed:</p> <ul style="list-style-type: none"> <li>• PG&amp;E submitted a PSPS Notification Form to Cal OES and sent an e-mail to the CPUC.</li> <li>• PG&amp;E sent notifications to other Public Safety Partners, customers and MBL program customers, including tenants of master metered accounts, and SIV customers; these notifications included confirmation that they would no longer be de-energized, along with PG&amp;E information resource links.</li> </ul> <p>Customer notifications were provided in English, with information on how to get event information in translated languages. Customers with their language preference selected in their PG&amp;E accounts received in-language (translated) notifications. Public Safety Partner notifications were provided in English.</p>

**Section 5.2 – Notification timeline including prior to de-energization, initiation, restoration, and cancellation, if applicable. The timeline should include the required minimum timeline and approximate time notifications were sent. (D.19-05-042, Appendix A, page A8-A9, D.21-06-034, page A11)**

**Response:**

Table 3 below describes notifications and the time the notification was sent in accordance with the minimum timelines set forth by the CPUC PPS Phase 1 Guidelines<sup>20</sup>, to Tribal/Local Governments, Public Safety Partners, and all customers. Table 3 also describes notifications SCE sent to shared customers ahead of the potential de-energization.

Note that PG&E did not de-energize customers, therefore initiation and restoration notification information is not applicable.

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<sup>20</sup> D.19-05-042.

**Table 3: Customer Notification Timeline Summary**

Event Order	Minimum Timeline <sup>21</sup>	Notification Sent to	Approximate Time Sent (PST)	Message	Notes	Who Made the Notification
Pre-De-energization (Prior)	72-48 hours	Tribal/Local Governments and CCAs*	12/13/2023 08:42	Priority		PG&E
		Public Safety Partners**	12/13/2023 08:00	Priority		PG&E
		Public Safety Partners**	12/13/2023 09:30	Priority	Shared Customers	SCE
	48-24 hours	Tribal/Local Governments and CCAs*	12/13/2023 14:51	Watch		PG&E
		Public Safety Partners**	12/13/2023 15:00	Watch		PG&E
		Public Safety Partners**	12/13/2023 15:30	Watch	Shared Customers	SCE
		All Customers***	12/13/2023 14:58	Watch		PG&E
		All Customers***	12/13/2023 15:30	Watch	Shared Customers	SCE
	12-24 hours <sup>22</sup>	Tribal/Local Governments and CCAs*	12/14/2023 10:34	Watch		PG&E
		Public Safety Partners**	12/14/2023 10:28	Watch		PG&E
		Public Safety Partners**	12/14/2023 11:00	Watch	Shared Customers	SCE
		All Customers***	12/14/2023 11:00	Watch	Shared Customers	SCE
		All Customers***	12/14/2023 10:27	Watch		PG&E
	4-1 hours	Tribal/Local Governments and CCAs*	12/15/2023 05:50	Warning		PG&E
		Public Safety Partners**	12/15/2023 05:46	Warning		PG&E
		Public Safety Partners**	12/15/2023 07:15	Warning	Shared Customers	SCE
		All Customers***	12/15/2023 07:15	Warning	Shared Customers	SCE
		All Customers***	12/15/2023 05:44	Warning		PG&E

<sup>21</sup> D.19-05-042.

<sup>22</sup> While not a CPUC requirement, PG&E provides an additional 24-12 hour notification to Tribal/Local Governments, Public Safety Partners and Customers.

Event Order	Minimum Timeline <sup>21</sup>	Notification Sent to	Approximate Time Sent (PST)	Message	Notes	Who Made the Notification
Cancellation	Within 2-hours of decision to cancel	Tribal/Local Governments and CCAs*	12/15/2023 17:26	Cancel	Only Tribal/Local Governments and CCAs removed from scope received the cancel notification	PG&E
		Tribal/Local Governments and CCAs*	12/16/2023 11:02	Cancel	Only Tribal/Local Governments and CCAs removed from scope received the cancel notification	PG&E
		Public Safety Partners**	12/14/2023 20:04	Cancel	Only Public Safety Partners removed from scope received the cancel notification	PG&E
		Public Safety Partners**	12/15/2023 17:26	Cancel	Only Public Safety Partners removed from scope received the cancel notification	PG&E
		Public Safety Partners**	12/16/2023 11:04	Cancel	Only Public Safety Partners removed from scope received the cancel notification	PG&E
		Public Safety Partners**	12/16/2023 10:30	Cancel	Only Shared Customer Public Safety	SCE

Event Order	Minimum Timeline <sup>21</sup>	Notification Sent to	Approximate Time Sent (PST)	Message	Notes	Who Made the Notification
					Partners removed from scope received the cancel notification	
		All Customers***	12/14/2023 20:04	Cancel	Only Customers removed from scope received the cancel notification	PG&E
		All Customers***	12/15/2023 17:26	Cancel	Only Customers removed from scope received the cancel notification	PG&E
		All Customers***	12/16/2023 11:04	Cancel	Only Customers removed from scope received the cancel notification	PG&E
		All Customers***	12/16/2023 10:30	Cancel	Only Shared Customers removed from scope received the cancel notification	SCE

\*A subset of Public Safety Partners, including Tribes, cities, counties, and CBOs.

\*\*A subset of Public Safety Partners, including water, wastewater, and communication service providers.

\*\*\*All Customers, including MBL program customers and SIV customers.

**Section 5.3 - For those customers where positive or affirmative notification was attempted, use the following template to report the accounting of the customers (which tariff and/or access and functional needs population designation), the number of notification attempts made, the timing of attempts, who made the notification attempt (utility or public safety partner) and the number of customers for whom positive notification was achieved. (D.19-05-042, Appendix A, page A23, SED Additional Information.)**

**“Notification attempts made” and “Successful positive notification” must include the unique number of customer counts. When the actual notification attempts made are less than the number of customers that need positive notifications, the utilities must explain the reason. In addition, the utilities must explain the reason of any unsuccessful positive notifications. (SED Additional Information.)**

**Response:**

Table 4 below includes metrics associated with PG&E notifications provided to customers where positive or affirmative notification was attempted. PG&E interprets the number of customers that need positive or affirmative notification as customers the company seeks confirmation from, namely MBL program customers and SIV customers.

**Table 4: Notifications to Customers where Positive or Affirmative Notification was Attempted<sup>23</sup>**

Designation	Total Number of customers <sup>24</sup>	Notification Attempts Made <sup>25</sup>	Timing of Attempts (PST) <sup>26</sup>	Who made the Notification Attempt	Successful Positive Notification <sup>27</sup>
MBL <sup>28</sup>	44	44 Watch Notifications	12/13/2023 14:58	PG&E	39 Watch Notifications
		44 Warning Notifications	12/14/2023 09:26		28 Warning Notifications
		88 Overall Notifications	12/13/2023 14:58		67 Overall Notifications
MBL behind a master meter <sup>29</sup>	0	0 Watch Notifications	N/A	PG&E	0 Watch Notifications
		0 Warning Notifications	N/A		0 Warning Notifications

<sup>23</sup> Counts of Notification Attempts Made will not reflect the actual total of customers notified as both MBL and SIV customers can appear in both subset groups.

<sup>24</sup> Total number of customers notified where notification was attempted. Count includes customers that may have been removed from scope or received Cancellation Notifications prior to de-energization, but still received Watch and/or Warning notifications.

<sup>25</sup> Count of Warning Notifications includes doorbell rings and Live Agent phone calls.

<sup>26</sup> Initial start time notification was sent.

<sup>27</sup> PG&E considers successful positive notifications as those in which the notification was successfully delivered to the customer (i.e., no bounce back) and the customer acknowledges receipt of the notification.

<sup>28</sup> Residential tenants of master-metered customers can also qualify for MBL quantities. The MBL category for the purposes of Table 4 does not include MBL program customers who are master meter tenants.

<sup>29</sup> PG&E has additional processes in place to ensure MBL customers are notified. Master meter tenants are contacted directly to be considered a positive notification. Contacting the property or building manager does not count as a positive notification.



Designation	Total Number of customers <sup>24</sup>	Notification Attempts Made <sup>25</sup>	Timing of Attempts (PST) <sup>26</sup>	Who made the Notification Attempt	Successful Positive Notification <sup>27</sup>
		0 Overall Notifications	N/A		0 Overall Notifications
SIV	7	7 Watch Notifications	12/13/2023 14:58	PG&E	6 Watch Notifications
		7 Warning Notifications	12/14/2023 12:04		6 Warning Notifications
		14 Overall Notifications	12/13/2023 14:58		12 Overall Notifications

For this potential PSPS, MBL program customers and SIV customers received automated calls, texts, and emails at the same intervals as general customer notifications. PG&E provided unique PSPS Watch and PSPS Warning Notifications to MBL program customers<sup>30</sup> and SIV customers.

These customer groups also received additional calls and texts at hourly intervals until the customer confirmed receipt of the automated notifications by either answering the phone, responding to the text, or opening the email. If confirmation was not received, a PG&E representative visited the customer’s home to check on the customer (referred to as the “doorbell ring” process) while hourly notification retries continued. If the customer did not provide confirmation to PG&E following the check-in, the PG&E representative left a door hanger providing additional PSPS notification and information to indicate PG&E had visited. In each case, the additional door hanger notification was considered successful<sup>31</sup>. PG&E conducted eight doorbells rings to MBL customers.

PG&E shared the lists of the MBL program customers and SIV customers who had not confirmed receipt of their notifications with appropriate county and Tribal emergency managers twice daily via the PSPS Portal. PG&E proactively notified agencies that the data was available on the PSPS Portal and encouraged them to inform these customers of the resources available to them. PG&E is unable to track and report on notifications made by Public Safety Partners, as notification systems and/or platforms used by Public Safety Partners are out of PG&E’s purview; PG&E encourages Public Safety Partners to include PSPS messages on all of their platforms. PG&E describes its engagement with Public Safety Partners in Section 6.

<sup>30</sup> Including MBL program customers who are master-metered tenants (e.g., renters or tenants in mobile home park).

<sup>31</sup> For MBL program customers and SIV customers, the in-person door ring visit where a door hanger is left, but no contact made with the customer is considered “successful contact,” but not confirmed as “received.” If the representative makes contact with the customer, then it is considered “received.”

**Section 5.4 - A copy or scripts of all notifications with a list of all languages that each type of notification was provided in, the timing of notifications, the methods of notifications and who made the notifications (the utility or local public safety partners). (D.19-05-042, Appendix A, page A23, SED Additional Information.)**

**Response:**

Please reference “PGE\_PSPS\_Event\_Notifications\_20231215.pdf” for a copy of the notification templates, the timing of the notifications and methods of notifications that PG&E sent during the potential December 15, 2023 PSPS. Additional information on the timing of notifications sent during this event can be found in Table 3.

PG&E provides tribal, city, county, CCAs, Public Safety Partner, transmission-level customers, and municipal utility notifications in English only.

All other customer notifications are delivered in-language if a customer’s language preference is on file. If there is no language preference on file, the notification is delivered in English, with information on how to get event information in translated languages. Although PG&E offers notifications in 15 non-English languages (Spanish, Chinese [Mandarin and Cantonese], Vietnamese, Korean, Tagalog, Russian, Portuguese, Arabic, Farsi, Punjabi, Japanese, Khmer, Hmong, Thai and Hindi), Spanish was the only non-English language requested for this potential PSPS. For more information on notifications provided to customers in the customer-set language preferences, see Table 7.

**Section 5.5 - If the utility fails to provide notifications according to the minimum timelines set forth in D.19-05-042 and D.21-06-034, using the following template to report a breakdown of the notification failure and an explanation of what caused the failure. (D.21-06-014 page 286, SED Additional Information.)**

**Response:**

PG&E makes a substantial effort to provide notifications whenever possible in accordance with the PSPS Phase 1<sup>32</sup>, 2019 PSPS OII<sup>33</sup>, and additional notification guidelines in Phase 3<sup>34</sup>, weather and other factors permitting.

In accordance with Phase 3, we make every attempt to provide cancellation notifications within two hours of the decision to cancel those customers. These notifications are distributed when customers are removed from scope due to rapidly changing forecasted or observed weather conditions.

Note that PG&E did not de-energize customers, therefore, cancellation notifications are the only applicable notice type to be reported in Table 5 below.

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<sup>32</sup> D.19-05-042.

<sup>33</sup> D.21-06-014.

<sup>34</sup> D.21-06-034.

**Table 5: Notification Failure Causes**

<b>Notifications Sent to</b>	<b>Notification Failure Description</b>	<b>Number of Entities or Customer Account</b>	<b>Explanation of Failure</b>
<b>Public Safety Partners excluding Critical Facilities and Infrastructure<sup>35</sup></b>	<b>Entities who did not receive 48-to 72-hour priority notification</b>	N/A	N/A
	<b>Entities who did not receive 1–4-hour imminent notification</b>	N/A	N/A
	<b>Entities who did not receive any notifications before de-energization</b>	N/A	N/A
	<b>Entities who were not notified immediately before re-energization</b>	N/A	N/A
	<b>Entities who did not receive cancellation notification within two hours of the decision to cancel</b>	0	No notification failures
<b>Critical Facilities and Infrastructure<sup>36</sup></b>	<b>Facilities who did not receive 48-to 72-hour priority notification</b>	N/A	N/A
	<b>Facilities who did not receive 1–4-hour imminent notification</b>	N/A	N/A
	<b>Facilities who did not receive any notifications before de-energization</b>	N/A	N/A
	<b>Facilities who were not notified immediately before de-energization initiation</b>	N/A	N/A
	<b>Facilities who were not notified immediately before re-energization</b>	N/A	N/A
	<b>Facilities who were not notified when re-energization is complete</b>	N/A	N/A
	<b>Facilities who did not receive cancellation notification within two hours of the decision to cancel</b>	0	No notification failures
<b>All other affected customers</b>	<b>Customers who did not receive 24–48-hour priority notifications</b>	N/A	N/A

<sup>35</sup> Only includes Tribes, cities, counties, and CCAs.

<sup>36</sup> Includes Public Safety Partners who are critical facilities and infrastructure customers.

Notifications Sent to	Notification Failure Description	Number of Entities or Customer Account	Explanation of Failure
	Customers who did not receive 1–4-hour imminent notifications	N/A	N/A
	Customers who did not receive any notifications before de-energization	N/A	N/A
	Customers who were not notified at de-energization initiation	N/A	N/A
	Customers who were not notified immediately before re-energization	N/A	N/A
	Customers who were not notified when re-energization is complete	N/A	N/A
	Customers who did not receive cancellation notification within two hours of the decision to cancel	0	No notification failures

**Section 5.6 - Explain how the utility will correct the notification failures. (D.21-06-014, page 286.)**

**Response:**

PG&E had a 100% success rate for cancellation notifications for the potential December 15, 2023 PSPS, as listed in Table 5, therefore no corrective actions were identified.

**Section 5.7 - Enumerate and explain the cause of any false communications citing the sources of changing data. (D.20-05-051, Appendix A, page 4.)**

**Response:**

PG&E has not identified any false communications for the potential December 15, 2023 de-energization as PSPS was cancelled.

## **Section 6 – Local and State Public Safety Partner Engagement**

**Section 6.1 - List the organization names of public safety partners including, but not limited to, local governments, tribal representatives, first responders and emergency management , and critical facilities and infrastructure the utility contacted prior to de-energization, the date and time on which they were contacted, and whether the areas affected by the de-energization are classified as Zone 1, Tier 2, or Tier 3 as per the definition in CPUC General Order 95, Rule 21.2-D. (Resolution ESRB-8, page 5, SED Additional Information.)**

### **Response:**

Please see Appendix B for a list of Public Safety Partners including Tribal representatives, local governments, first responders and emergency management, and critical facilities notified with the date and time of the initial notification, and whether the areas affected by the de-energization are classified as Zone 1, Tier 2, or Tier 3.

As stated in our [2023 Wildfire Safety Power Outage Decision Making Guide](#), we use a HFRA classification which PG&E utilizes in addition to HFTD to determine PSPS scope. In Appendix B, we begin by identifying HFTD area assigned to Public Safety Partners. Any area outside of HFTD is reclassified as HFRA. PG&E’s circuits can run miles long and span across multiple jurisdictions. Some Public Safety Partners outside of HFRA and HFTD were also in the potentially impacted scope in order to deenergize areas within HFRA and HFTD for safety.

**Section 6.2 - List the names of all entities invited to the utility’s Emergency Operations Center for a PSPS event, the method used to make this invitation, and whether a different form of communication was preferred by any entity invited to the utility’s emergency operation center. (D.21-06-014, page 289.)**

### **Response:**

PG&E invited, via email, the following entities to virtually embed themselves into PG&E’s EOC. No federally recognized tribes were in scope for the potential PSPS.

- State Agencies: Cal OES and CPUC
- Counties: Kern and Santa Barbara

PG&E also conducts continuous outreach to water infrastructure and communication service providers within PG&E’s electrical service area with information on how to request representation during a PSPS at the PG&E EOC in Vacaville or remotely. Alternatively, some partners may also request PG&E representation at their jurisdiction’s activated Operations Emergency Center (OEC)<sup>37</sup>. These stakeholders are also invited to the Systemwide Cooperator Calls that are held at noon each day the EOC is activated for a potential PSPS to provide situational awareness updates directly from the leadership within PG&E’s EOC. Updates shared at any location or during the daily Systemwide Cooperator Calls<sup>38</sup> were the same as those shared during the daily operational briefings to ensure all partners receive consistent information.

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<sup>37</sup> D.19-05-042.

<sup>38</sup> The Daily Systemwide Cooperator Calls are open to Tribal and local elected officials, staff and emergency managers, telecommunication providers, water agencies, emergency hospitals, publicly owned utilities, community choice aggregators, transportation authorities, and community-based organizations within PG&E’s electrical service area.

PG&E continuously communicates with the following water infrastructure and communication service providers.

- Water Infrastructure Providers:

Alleghany Water District, Amador Water Agency, American Water Works Company Inc., American Water Works Service Company Inc., Army Corp Of Engineers, Aromas Water District, Bear Valley Water District, Bodega Bay Public Utility District, Calaveras County Water District, California American Water, California Department of Corrections, California Department of Forestry, California Department of Water Resources, California Water Service Company, Cambria Community Services District, Central Coast Water Authority, Central Contra Costa Sanitary District, Central Marin Sanitation Agency, Chicken Ranch Rancheria, City and County of San Francisco, City of Oakland Public Works, Contra Costa Water District, CPPA CCWD Water Treatment, Cuyama Community Service District, Delta Diablo, Department Of The Army, Downieville Public Utilities District, Dublin San Ramon Services District, East Bay Municipal Utility District, EL Dorado Irrigation District, Fall River Mills Community Service District, First Mace Meadow Water Association Inc., Haskell Creek Tract Association, Laguna County Sanitation District, Lake Don Pedro Community Service District, Lebec County Water District, Leland Meadows Water, Marin Municipal Water District, Mi Wuk Village Mut Water Co, Mineral Mountain Estates, Mission Hills Community Services District, Modesto Irrigation District, Murphy's Sanitary Distribution, Napa Sanitation District, Nipomo Community Services District, Novato Sanitary District, Oakdale Irrigation District, Oaks Mobile Home Homeowners Association, Pacific Gas and Electric Company, Placer County Water Agency, Port of Redwood City, River Pines Public Utility District, San Andreas Land Disposal System, San Jose Water Company, San Lorenzo Valley Water District, San Luis Obispo County, San Rafael Sanitation District, Sausalito Marin City Sanitary District, Scotts Valley Water District, Sewer Agency of Southern Marin, Sonoma County Water Agency, Soquel Creek Water District, Stockton East Water District, Tiburon Sanitary District, Tuolumne Utilities District, Valley Springs Public Utility District, Vandenberg Village Community Services District, Washington County Water District, Yocha Dehe Wintun Nation, Yosemite Springs Park Utility Company Inc., Zone 7 Alameda County Flood Control District.

- Communication Service Providers:

Altice/SuddenLink, American Tower, AT&T Corporation, Calaveras Telephone Co., Calneva Broadband, Charter Communications, Comcast, Consolidated Communications, ExteNet, Frontier Communications, Mediacom California LLC, Northland Cable Television Inc., Ponderosa Telephone Co, Qwest/CenturyLink/Lumen, SBA Towers, Sebastian Corp, Sierra Telephone, TDS Telecom, T-Mobile, US Cellular, Verizon, Volcano Communications, Wave Broadband.

PG&E provides communication service providers a dedicated PG&E contact in the EOC known as the CIL, who shares up-to-date event information and answers specific, individual questions. They can reach the CIL 24/7 during an event by e-mail or phone at PG&E's Business Customer Service Center.

**Section 6.3 - A statement verifying the availability to public safety partners of accurate and timely geospatial information, and real time updates to the GIS shapefiles in preparation for an imminent PSPS event and during a PSPS event. (D.21-06-014, page 289.)**

**Response:**

In preparation for a potential PSPS event, PG&E sent automated notifications to Public Safety Partners with links to the PSPS Portal at the times outlined in Table 3. In addition, when PDF maps and GIS data was updated on the PSPS Portal due to scope changes, Portal users were notified via e-mail at the times outlined below in Table 6.

After the EOC was activated, PDF maps and GIS data on the PSPS Portal were determined accurate and updated in a timely manner following changes to geographic scope or customer impacts.

**Table 6: PSPS Portal Time & Date for Map Sharing**

Date	Time PDF Maps Shared	Time GIS Layers Shared
12/13/2023	7:24 PST	7:24 PST
12/14/2023	10:02 PST	10:02 PST
12/14/2023	20:24 PST	20:24 PST
12/15/2023	17:06 PST	17:06 PST

**Section 6.4 - A description and evaluation of engagement with local and state public safety partners in providing advanced outreach and notification during the PSPS event. (D.19-05-042, Appendix, page A23.)**

**Response:**

Below is a description of the engagement with local (i.e., Tribes, cities, counties) and state (CPUC, Cal OES, CAL FIRE) Public Safety Partners:

- Submitted the PSPS Notification Form to Cal OES twice a day, if there was a significant change to scope and at least once for each of the five PSPS stages: Activating PSPS Protocols/Potential to De-energize (Stage 1), Decision to De-energize (Stage 2), De-energization Initiated (Stage 3), Initiating Re-energization Patrols (Stage 4) and All PSPS Lines Re-energized (Stage 5).
  - 12/13/2023 at 06:34 PST
  - 12/13/2023 at 13:45 PST
  - 12/14/2023 at 06:01 PST
  - 12/14/2023 at 10:10 PST
  - 12/14/2023 at 14:59 PST
  - 12/14/2023 at 17:44 PST
  - 12/14/2023 at 18:18 PST
  - 12/15/2023 at 06:24 PST
  - 12/15/2023 at 14:47 PST
  - 12/15/2023 at 17:44 PST
  - 12/16/2023 at 06:08 PST
  - 12/16/2023 at 10:30 PST
  - 12/16/2023 at 11:30 PST

- Sent e-mails to the CPUC at least once for each of the five PSPS stages listed above; this includes:
  - 12/13/2023 at 06:42 PST
  - 12/14/2023 at 17:40 PST
  - 12/15/2023 at 05:50 PST
  - 12/15/2023 at 17:20 PST
  - 12/16/2023 at 10:55 PST
- Hosted daily State Executive Briefings with Cal OES, CPUC, CAL FIRE, Governor’s Office, U.S. Forest Service, Department of Interior, and other state agencies to provide the latest event information and answer questions. A deck with key event information was provided to participants.
- Hosted the daily Systemwide Cooperators Call, where all Public Safety Partners in the service area were invited to join for situational awareness.
- Hosted Tribal Cooperators Calls with select Tribes to provide the latest event information and answer questions.
- Hosted Operational Areas Cooperators Communication Calls to provide situational awareness updates and answer questions.<sup>39</sup>
- Conducted ongoing coordination with Tribal and local County OES contacts through dedicated Agency Representatives. This included, but is not limited to, providing the latest event information, coordinating on CRC locations, and resolving local issues in real-time.
- Provided links to the PSPS Portal that included event-specific maps, Situation Reports, critical facility lists and MBL program customer lists at each notification and when scope changed. Note that the Situation Report was provided twice a day and at scope changes.
- Sent automated and live call notifications to agency partners before, during and after de-energization.
- Offered local and state agencies to be embedded in PG&E’s EOC, as well as offered PG&E Agency Representatives to be embedded virtually in local OECs.

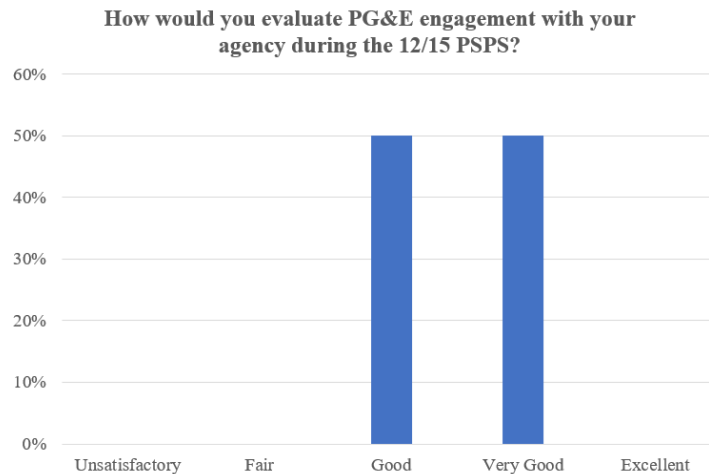
PG&E considers the advanced outreach and notification to local and state Public Safety Partners during this EOC activation successful but with minor improvements needed. This is based on the number and various types of outreach conducted (see list above), the feedback received from Public Safety Partners through the post-event survey and the success rate of automated agency notifications. Leading up to potential de-energization, we sent 100% of our automated notifications to Tribal and local governments within the required timeframes. Figure 5 below shows the post-event survey results when Public Safety Partners were asked to “evaluate PG&E engagement with your agency during the outage.” Note that we received two responses to the survey. PG&E will continue to refine the agency notification process to ensure accurate and timely information sharing.

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<sup>39</sup> May vary in cadence & type based on County OES.



**Figure 5: Evaluation of Public Safety Partner Engagement**



**Section 6.5 - Specific engagement with local communities regarding the notification and support provided to the AFN community. (D.20-05-051, Appendix A, page 8, SED Additional Information)**

**Response:**

To ensure PG&E provides adequate support to AFN communities, we engage with local communities through paratransit agencies, media partnerships, and CBOs to share coordination efforts, notifications plans, CRC information, event-specific information and more. See below for details on this engagement.

Engagement with Paratransit Agencies

In accordance with the Phase 3 Guidelines<sup>40</sup>, PG&E provided proactive notifications and impacted zip code information to paratransit agencies that may serve all the known transit- or paratransit-dependent persons that may need access to a CRC during the potential PSPS. PG&E provided proactive notifications<sup>41</sup> to 132 paratransit agencies for the potential December 15, 2023 PSPS. All notifications included a link to the PSPS emergency website event updates page, [pge.com/pspsupdates](http://pge.com/pspsupdates) and a section called “Additional Resources” with a link to a map showing areas potentially affected by a shutoff. For more information on ADA compliant CRC locations, see Section 9.

PIO Media Engagement

To alert the public in advance of potential de-energization, we used both media and online efforts. From the time PG&E publicly announced the potential PSPS until cancellation, PG&E engaged with customers and the public through the media as described below.

- Issued five local news releases Current’s Blog updates combined, containing information and updated details about the PSPS and wind events.
- Identified approximately 13 unique print, online, and broadcast stories.

<sup>40</sup> D.21-06-034.

<sup>41</sup> For this potential de-energization, paratransit agencies received the Watch, Warning, and Cancellation Notification.

- Provided regular, ongoing news releases to more than 32 California news outlets and reporters, as well as several syndicated national outlets.
- Handled approximately two media inquiries, either from media outlets that contacted PG&E’s 24-hour media line or direct calls to field media reps and participated in two media interviews to provide situational updates and preparedness messages for the potential PSPS.

### In-Language Media Engagement

Our Integrated Multicultural Communications team reached out to four multi-cultural news outlets. Additionally, we coordinated directly with four multicultural media organizations to issue event updates on their in-language platforms (e.g., radio, TV, social media) in three languages (English, Spanish and Farsi).

### Other Channels of Communication and Additional Community Engagement

We engaged with over 309 “information-based” CBOs during the event, sharing courtesy notification updates, fact sheets, and other relevant information that they could share with their constituents to expand our reach of communications, including infographic videos with relevant PSPS updates in 15 non-English language and American Sign Language (ASL) that the organizations could use to educate their consumers.

CBO resource partners were invited to the daily Systemwide Cooperator Call for Public Safety Partners, which was hosted by members from PG&E’s EOC who provided a situational update about the latest scope of potential de-energization and an overview of the services available to customers. We hosted additional daily coordination calls with the CBO resource partners supporting the potential de-energization to provide an open forum to answer questions, offer suggestions regarding how they can best support their consumers, and facilitate more localized coordination among the partners.

### Event Support for AFN Customers<sup>42</sup>

PG&E provided a variety of resources to AFN customers before potential de-energization. These resources include:

- Disability Disaster Access and Resource Program (DDAR)<sup>43</sup>: We continued our collaboration with the California Foundation for Independent Living Centers (CFILC) to Independent Living Center implement the DDAR Program for the potential PSPS. Through DDAR, we have supported AFN customers with delivery of approximately 4,804 backup portable batteries (since July 2020) to qualifying customers who need power during a PSPS. Through DDAR, PG&E provided the following resources for the December 15, 2023 potential PSPS.<sup>44</sup>
  - Two local (ILCs) provided aid to impacted seniors and/or people with disabilities who rely on power for medical or independent living needs.
  - Two batteries, previously distributed, and 13 additional batteries were delivered and provided support to potentially impacted customers.

<sup>42</sup> For the potential December 15, 2023 PSPS, PG&E did not partner with Food Banks, Meals on Wheels or Accessible Transportation as we did not de-energize any customers.

<sup>43</sup> For more information about the DDAR Program, refer to [PG&E’s 2023 AFN Plan for PSPS Support](#).

<sup>44</sup> Some of the resources provided were an outcome of MBL customer-related escalations called in to PG&E the potential PSPS. DDAR alerted their constituents about the available resources. DDAR engaged directly with approximately 15 PG&E customers related to the potential PSPS.

- The DDAR program did not provide individuals with hotel stays, food vouchers or gas cards to customers for the potential de-energization.
- Portable Battery Program<sup>45</sup>: Our Portable Battery Program (PBP) provides free portable battery systems for customers who live in Tiers 2 and 3 High Fire-Threat Districts (HFTDs) and are enrolled in the MBL Program. For the potential de-energization, 81 customers in scope were supported by batteries received through PBP (delivered in 2020, 2021, 2022, and year to date 2023). Since July 2020, a total of approximately 22,081 battery units have been delivered through PBP across the entire PG&E service area.
- 211 Referral Services: PG&E has a long-standing relationship with 211 through our charitable grant program. As of August 13, 2021, PG&E has a partnership with the California network of 211s to connect customers with resources before, during, and after a PSPS. For the potential de-energization, PG&E worked with 211 to assist customers with resources.

#### Communications to Customers with Limited English Proficiency

PG&E provided translated customer support through its customer notifications, website, call center, social media and engagement with CBOs, and multicultural media partnerships. Notifications were provided to customers in English, with information on how to get event information in other languages, unless customers had their language preference set. The notifications were provided to customers in the following customer-set language preferences shown in Table 7 below.

**Table 7: Customer Notifications Based on Language Preference**

Language	Total Notifications <sup>46</sup>	Percent
English	162,849	99.848%
Spanish	248	0.152%
<b>Total</b>	<b>163,097</b>	<b>100%</b>

Customers with limited English proficiency have access to translation phone numbers on our PSPS website, highlighting that translation services are available in over 200 languages. Table 8 below includes call center-related metrics associated with this potential PSPS.

**Table 8: Call Center Support Services<sup>47</sup>**

Total Calls Handled	PSPS Calls Handled	Average Response Time for PSPS-related Calls (seconds)	Number of calls handled by Call Center Translation Services	Number of languages Supported by Call Center Translation Services
64,110	334	8	1,056	290+

PG&E continued support and engagement with multi-cultural media organizations and in-language CBOs to maximize the reach of in-language communications to the public. Prior to potential de-energization, we reached out to four multicultural media organizations and nine

<sup>45</sup> For more information about the PBP Program, refer to [PG&E's 2023 AFN Plan for PSPS Support](#).

<sup>46</sup> Total notifications do not include doorbell rings and Live Agent phone calls.

<sup>47</sup> Metrics are provided from December 13, 2023 through December 16, 2023.

CBOs providing language outreach. These organizations covered the translated languages above and languages spoken by communities that occupy significant roles in California’s agricultural economy (e.g., Nahuatl). Additionally, we shared information and updates on PSPS with these media outlets, including news releases and social media infographics in English, as well as in translated languages and ASL, for their use and distribution. We also shared our new PSPS Language Resources page ([www.pge.com/pspslanguagehelp](http://www.pge.com/pspslanguagehelp) available in 15 non-English languages) with organizations to share with their constituents. Highlights from our coordination with multicultural media organizations and CBOs for the potential PSPS include Crossings TV (a statewide media outlet) [online story](#) regarding potential de-energization based on the information PG&E provided. See Figure 6 below.

**Figure 6: Potential PSPS Event in Kern and Santa Barbara Counties on Crossings TV**



### PG&E Website

For the potential PSPS, PG&E placed an alert in the Current Alerts box on the [pge.com](http://pge.com) home page that drove traffic to PG&E’s PSPS event site, and implemented tools to drive traffic to and maintain stability of the PSPS emergency website/event updates page, [pge.com/pspsupdates](http://pge.com/pspsupdates). Visits to the emergency website peaked on December 15, 2023, with approximately 12,500 visits and 24,000 page views. The emergency website saw a total of 40,400 visits and 70,500 page views from the time of the initial customer notification to the time cancellation notifications were sent.

We remain committed to the continuous improvement of our websites to better meet the diverse needs of its customers. As we launch new features and functionality to [pge.com](http://pge.com) and to [pgealerts.alerts.pge.com/](http://pgealerts.alerts.pge.com/), we test to help ensure compliance with updated WCAG 2.1AA standards. We also seek to improve the customer experience with user testing for key components. Where possible, we remediate accessibility issues that customers or stakeholders have brought to our attention.

The following content was available on PG&E’s PSPS updates pages or on links from those pages:

- Straightforward, simplified event information available in 15 non-English languages, with clear updates about the proposed scope of the PSPS, including location (e.g., list of impacted Tribes, cities, and counties), duration of the event, including estimated times of de-energization and re-energization at the individual address level, and overall for the event.
- PDFs of potentially impacted areas, shape and KMZ files for Public Safety Partners to use with their own mapping applications, and city/county lists with shutoff and restoration summaries.
- CRC details made available as soon as sites were confirmed, including locations listed by county, resources available at each center, type of CRC (e.g., indoor, outdoor), COVID-19 policies, and operating hours. CRC locations were also indicated on the PSPS impact map.
- Links to additional resources including Electric Vehicle (EV) charging location map, videos in ASL, locations of ILCs, resources for customers with accessibility, financial, language, and aging needs, backup power safety tips, MBL program information, and more.
- Links in customer Watch Notifications to information regarding WeaveGrid for electric vehicle resiliency.
- Webpage, available in 15 non-English languages, that describes our language support services for customers during a PSPS at [pge.com/pspslanguagehelp](https://pge.com/pspslanguagehelp).
- Survey to provide input regarding the website and PSPS communications.
- Address look-up tool that a customer and the public could use to identify specific potential PSPS impacts.
- Address-level alerts, available in 15 non-English languages, that allow non-PG&E-account holders to receive notifications via a phone call or SMS text for any address where they do not receive a bill (e.g., workplace, child’s school, renters, mobile home parks, etc.). See [pgealerts.alerts.pge.com/outages/psps-address-alert](https://pgealerts.alerts.pge.com/outages/psps-address-alert) and Figure 7 below.

**Figure 7: PG&E PSPS Address Alert Sign-Up Webpage**

**PSPS Address Alerts for Non-PG&E Account Holders**

- Get a phone call from PG&E if power shutoffs may be needed to help prevent a wildfire.
- To sign up for PSPS Address Alerts for an address where you do not have a PG&E billing account, enter address below.
- Sample uses: your work, your child’s school, your parents’ house, mobile home parks, rental units where the landlord pays for gas or electric.
- Account holders for this address receive PSPS alerts automatically.

Enter service address ⓘ

**Can't find your address?**

If your address doesn't appear in the drop-down choices, it means we can't match it to the addresses in our system. For assistance, call [1-800-743-5002](tel:1-800-743-5002).

To **unsubscribe**, call [1-800-896-9654](tel:1-800-896-9654) using the phone number you enrolled.

This year, PSPS-related improvements to pge.com include:

- Simplified content on our PSPS resources webpage, available in 15 non-English languages, to better serve AFN individuals.
- Updated User Interface (UI) for consistent experience across webpages.
- File automation used during a PSPS to improve speed and reduce the possibility of human error.

PG&E’s website offers PSPS preparedness information in 15 non-English languages covering topics including the MBL program application and fact sheets on PSPS, Community Wildfire Safety Program, MBL program, and more. See Table 9 for information on PG&E’s web traffic, Table 10 for the number of unique visitors to the translated versions of PGE’s Website ([pge.com](http://pge.com)) for this event, and Table 11 for the number of unique visitors to the translated versions of PG&E’s Emergency Website ([pgealerts.alerts.pge.com](http://pgealerts.alerts.pge.com)).

**Table 9: PG&E Website Traffic for the Potential December 15, 2023 PSPS**

Web Page	Unique Visitors	Visits	Page Views
PG&E’s Website ( <a href="http://pge.com">pge.com</a> )	745,581	829,840	1,167,979
PG&E’s Emergency Website ( <a href="http://pgealerts.alerts.pge.com">pgealerts.alerts.pge.com</a> ) <sup>48, 49</sup>	28,674	40,356	70,439

**Table 10: Unique Visitors to the Translated Versions of PG&E’s Website for the Potential December 15, 2023 PSPS<sup>50</sup>**

Language	Unique Visitors	Percent
English	716,996	96.2%
Spanish	12,526	1.7%
Chinese	1,308	0.2%
Thai	1,231	0.2%
Russian	1,151	0.2%
Japanese	1,148	0.2%
Arabic	1,144	0.2%
Portuguese	1,130	0.2%
Vietnamese	1,129	0.2%
Korean	1,124	0.2%
Tagalog	1,118	0.1%
Hmong	1,109	0.1%
Hindi	1,100	0.1%
Panjabi	1,096	0.1%
Farsi	615	0.1%
Khmer	113	0.0%

<sup>48</sup> The PSPS Updates page is at the following link: [pge.com/pspsupdates](http://pge.com/pspsupdates). PG&E also uses the following shortened URL for the same site: [pge.com/pspsupdates](http://pge.com/pspsupdates).

<sup>49</sup> The emergency website metrics are a subset of the [pge.com](http://pge.com) website traffic reported.

<sup>50</sup> Not all webpages within PG&E’s Website are offered in the translated languages listed. If the language is not included in the selector on the webpage, the visitor can call 1-833-208-4167 for assistance in 290+ other languages.

<b>Grand Total<sup>51</sup></b>	<b>745,581</b>	<b>100%</b>
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**Table 11: Unique Visitors to the Translated Versions of PG&E’s Emergency Website for the Potential December 15, 2023 PSPS<sup>52</sup>**

<b>Language</b>	<b>Unique Visitors</b>	<b>Percent</b>
English	28,323	98.8%
Spanish	116	0.4%
Chinese	11	0.0%
Farsi	5	0.0%
Panjabi	4	0.0%
Arabic	4	0.0%
Vietnamese	4	0.0%
Hindi	3	0.0%
Khmer	3	0.0%
Thai	3	0.0%
Hmong	3	0.0%
Portuguese	2	0.0%
Tagalog	2	0.0%
Japanese	2	0.0%
Korean	2	0.0%
Russian	1	0.0%
<b>Grand Total<sup>53</sup></b>	<b>28,674</b>	<b>100%</b>

**Section 6.6 - Provide the following information on backup power (including mobile backup power) with the name and email address of a utility contact for customers for each of the following topics: (D.21-06-014, page 300.)**

**Response:**

The information requested is included in Sections 6.6a – 6.6f. For questions related to backup power, customers can email [TempGenPSPSSupport@pge.com](mailto:TempGenPSPSSupport@pge.com).

**Section 6.6a. Description of the backup generators available for critical facility and infrastructure customers before and during the PSPS.**

**Response:**

PG&E did not de-energize customers, therefore, Section 6.6a is not applicable.

**6.6b. The capacity and estimated maximum duration of operation of the backup generators available for critical facility and infrastructure customers before and during the PSPS.**

**Response:**

PG&E did not de-energize customers, therefore, Section 6.6b is not applicable.

<sup>51</sup> There is some overlap in unique visitors by language because some visitors viewed webpages in different languages.

<sup>52</sup> PG&E’s emergency website is available to be translated in 15 non-English languages.

<sup>53</sup> There is some overlap in unique visitors by language because some visitors viewed webpages in different languages.

**6.6c. The total number of backup generators provided to critical facility and infrastructure customer's site immediately before and during the PSPS.**

**Response:**

PG&E did not de-energize customers, therefore, Section 6.6c is not applicable.

**6.6d. How the utility deployed this backup generation to the critical facility and infrastructure customer's site.**

**Response:**

PG&E did not de-energize customers, therefore, Section 6.6d is not applicable.

**6.6e. An explanation of how the utility prioritized how to distribute available backup generation.**

**Response:**

PG&E did not de-energize customers, therefore, Section 6.6d is not applicable.

**6.6f. Identify the critical facility and infrastructure customers that received backup generation.**

**Response:**

PG&E did not de-energize customers, therefore, Section 6.6f is not applicable.



## Section 7 – Complaints & Claims

**Section 7.1 - The number and nature of complaints received as the result of the de-energization event and claims that are filed against the utility because of de-energization. The utility must completely report all the informal and formal complaints, meaning any expression of grief, pain, or dissatisfaction, from various sources, filed either with CPUC or received by the utility as a result of the PSPS event. (Resolution ESRB-8, page 5, D.21-06-014, page 304.)**

### **Response:**

Table 12 below provides the number and nature of complaints received from customers and Public Safety Partners, submitted to both the CPUC and PG&E, between December 15 – December 20, 2023. Any complaints received after December 20 for this potential PSPS will be included in the 2023 PSPS Post-Season Report.

There were no claims filed against PG&E for the potential de-energization as of December 22, 2023.

**Table 12: Number and Nature of Complaints due to the Potential December 15, 2023 PSPS<sup>54</sup>**

Nature of Complaints	Number of Complaints
<b>Communications/Notifications</b> Including, but not limited to complaints regarding lack of notice, excessive notices, confusing notice, false alarm notice, problems with getting up-to-date information, inaccurate information provided, not being able to get information in the prevalent languages and/or information accessibility, complaints about website, Public Safety Partner Portal, Representational State Transfer (REST)/Digital Asset Manager (DAM) sites (as applicable).	1
<b>PSPS Frequency/Duration</b> Including, but not limited to complaints regarding the frequency and/or duration of PSPS events, including delays in restoring power, scope of PSPS and dynamic of weather conditions.	2
<b>Safety/Health Concern</b> Including, but not limited to complaints regarding difficulties experienced by AFN/MBL populations, traffic accidents due to non-operating traffic lights, inability to get medical help, well water or access to clean water, inability to keep property cool/warm during outage raising health concern.	3
<b>General PSPS Dissatisfaction/Other</b> Including, but not limited to complaints about being without power during PSPS event and related hardships such as food loss, income loss, inability to work/attend school, plus any PSPS-related complaints that do not fall into any other category.	7
<b>Outreach/Assistance</b> Including, but not limited to complaints regarding Community Resource Centers, community crew vehicles, backup power, hotel vouchers, other assistance provided by utility to mitigate impact of PSPS.	0

<sup>54</sup> PG&E reports PSPS complaints based on the CPUC-issued PSPS Post-Event Report template. Further complaints details will be provided in the 2023 PSPS Post-Season Report.

## **Section 8 – Power Restoration**

**Section 8.1 - A detailed explanation of the steps the utility took to restore power** (*Resolution ESRB-8 page 5*)

**Response:**

PG&E did not de-energize customers, therefore, Section 8.1 is not applicable.

**Section 8.2 - The timeline for power restoration, broken down by phase if applicable** (*D.19-05-042, Appendix A, page A24, SED Additional Information.*)

**Response:**

PG&E did not de-energize customers, therefore, Section 8.2 is not applicable.

**Section 8.3 - For any circuits that require more than 24 hours to restore, the utility shall explain why it was unable to restore each circuit within this timeframe.** (*D.20-05-051, Appendix A, page 6.*)

**Response:**

PG&E did not de-energize customers, therefore, Section 8.3 is not applicable.

## **Section 9 – Community Resource Centers**

**Section 9.1 - The address of each location during a de-energization event, the location (in a building, a trailer, etc.), the assistance available at each location, the days and hours that it was open, and attendance (i.e., number of visitors) (Resolution ESRB-8, page 5, SED Additional Information.)**

**Response:**

During the December 15, 2023 potential PSPS event, PG&E opened one outdoor CRC at the Lebec Post Office (2132 Lebec Road, Lebec, CA 93243). The site was visited by 170 people. A list with the CRC location, assistance available, operating days and hours, and attendance is reported in Appendix C.

Every PSPS notification directs recipients to [pge.com/pspsupdates](http://pge.com/pspsupdates), which includes a link to CRC information. This website prominently highlights the dedicated CRC page, which includes:

- Open CRC locations
- Hours of operation
- Services available at each site
- A note that the PSPS outage map can be used to find local CRC locations and identify where to access electricity during the hours CRCs are closed.

CRCs are typically open from 08:00 to 22:00 PST during the time the power is shut off until customers are restored. Visitors were provided with PSPS event information by dedicated staff, ADA-compliant restrooms, physically distanced tables and chairs, power strips to meet basic charging needs for personal medical devices and other electronics, snacks, bottled water, Wi-Fi, and cellular service access. For visitors who did not wish to remain on site, “Grab and Go” bags with a PSPS information card, water, non-perishable snacks, a mobile battery charger, and a blanket were available.

Santa Barbara County declined to have CRCs set up in their county due to the relatively small potential scope forecasted at the time.

Additional information about our CRC operations, including coordination with tribal and local governments, CRC types and resources, COVID-19 and other safety considerations, and more is available in the CRC Plan located in [Appendix A of PG&E’s 2023 Pre-Season Report](#), pp. 32-43.

**Section 9.2 - Any deviations and explanations from the CRC requirement including operation hours, ADA accessibility, and equipment. (SED Additional Information.)**

**Response:**

The Lebec Post Office CRC was not open for the full duration of the required operations hours on December 16, 2023, due to weather conditions improving, and PG&E ultimately cancelling the potential PSPS event. At that time, we worked with Kern County to demobilize the Lebec Post Office CRC.

**Section 9.3 - A map identifying the location of each CRC and the de-energized areas (SED Additional Information.)**

**Response:**

See Figure 8 below for a map of the CRC location. Note that PG&E did not de-energize customers. The map shows the initial PSPS scope prior to cancellation.

**Figure 8: Location of Community Resource Centers Readied During December 15, 2023 Potential PSPS**



## **Section 10 – Mitigations to Reduce Impact**

**Section 10.1 - Mitigation actions and impacts (both waterfall graph and map) including: sectionalization devices, temporary generation, microgrids, permanent backup generation, transmission switching, covered conductor, and any other grid hardening that mitigated the impact of the event (D.21-06-014, page 285, SED Additional Information.)**

**Response:**

PG&E did not de-energize customers, therefore, Section 10.1 is not applicable.

## **Section 11 – Lessons Learned from this Event**

**Section 11.1 - Threshold analysis and the results of the utility’s examination of whether its thresholds are adequate and correctly applied in the de-energized areas. (D.21-06-014, page 305-306.)**

### **Response:**

This section addresses our examination of the adequacy of our PSPS protocols and guidance thresholds. Although PG&E did not de-energize any customers for the potential December 15, 2023 PSPS, PG&E believes our thresholds were accurate and correctly applied to the potential scope.

PG&E begins its threshold evaluation with a robust historical analysis that is described in detail below. This established the guidance values to be applied for PSPS, which has been optimized to capture data from past catastrophic fires to mitigate customer impacts. To do so, Meteorologists use internal and external tools and subject matter expertise to decide.

Typically, before de-energization, the PSPS customer risk is also evaluated against the wildfire risk on a per circuit basis to further evaluate the adequateness of the event. And, during the event, the advanced weather modeling systems from our network of more than 1,300 weather stations is able to forecast and track weather conditions in real time. Finally, data and post-event analysis results are collected and provided as part of the PSPS Post-Event Report.

### **Establishing Threshold through Historical Analysis**

Our PSPS guidance was established by calibrating a granular, historical dataset. We built our verification dataset by creating, or “backcasting,” the PSPS guidance through our historical dataset. We extracted values for all recent fires that have occurred in PG&E’s service area from 2012 to 2020. We aimed to capture as many historical fires as possible that were caused by PG&E equipment during high wind events (e.g., Camp, Nuns, Kincade, Zogg) while limiting the number of historical PSPS events to minimize customer impacts. Our analysis included:

- Hourly review of past incidents
- Verification of hypothetical PSPS event dates
- PSPS guidance values testing
- A robust guidance sensitivity and calibration analysis

### **Historical Analysis: CFP<sub>D</sub> Quantification**

Based on this analysis, PG&E uses a CFP<sub>D</sub> value of nine as the quantitative threshold guidance value to consider for PSPS on PG&E’s distribution system.

To establish the CFP<sub>D</sub> threshold of nine, we performed multiple sensitivity studies in “backcast” mode for calibration and validation. This involved running 68 different versions of the combined distribution PSPS guidance through hourly historical data throughout multiple years to calibrate PSPS guidance. This included simulating and learning from more than 2,500 virtual PSPS events. Through this “lookback” analysis, we evaluated:

- The potential size, scope, and frequency of PSPS events
- Potential customer impacts
- The days PSPS events would have occurred
- Whether utility infrastructure would have qualified for de-energization

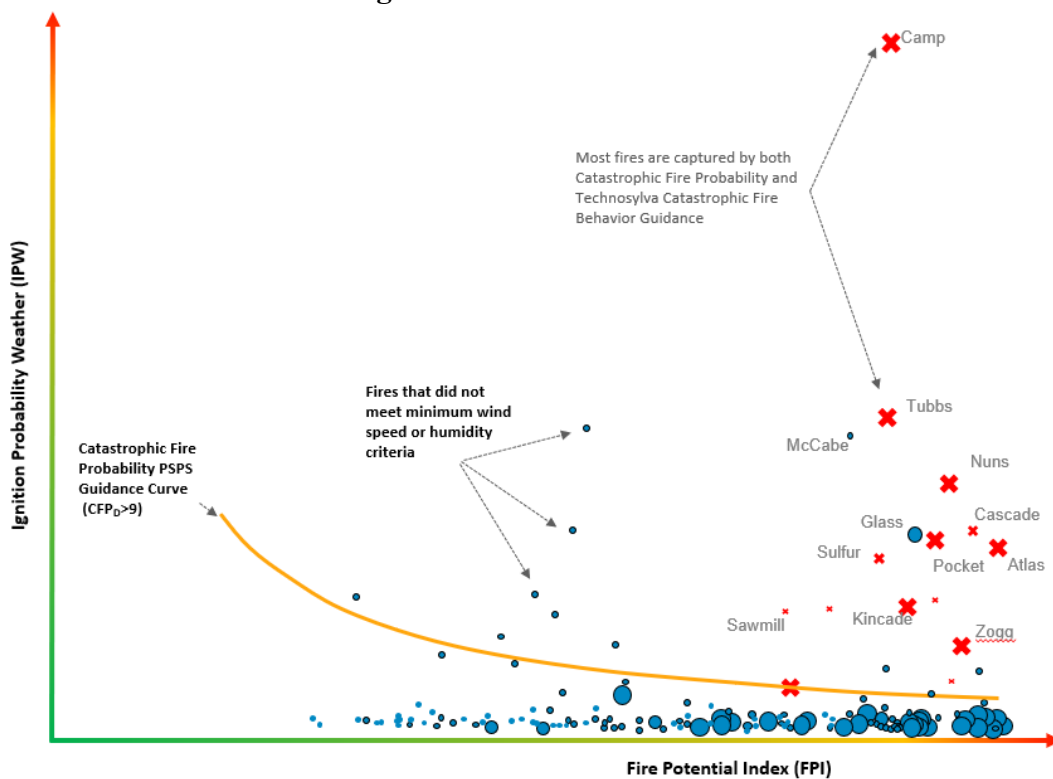
The mFPC and CFP<sub>D</sub> guidance that is determined from Technosylva was also evaluated using this process.

The CFP<sub>D</sub> guidance value of nine is shown in Figure 9 below with respect to recent large fires since 2012.

Any fires above nine that met the basic mFPC indicate PSPS would have been executed, had these models and guidance been in use during these historic events. The results show that deployment of this model could have prevented wildfires, such as Camp, Tubbs, Nuns, Atlas, Kincade and Zogg fires, if implemented in 2012. Please note that the inclusion of a fire in this analysis does not indicate that PG&E is directly responsible for or caused a fire. Instead, the fires are included for the purpose of analyzing the impact of PG&E's current PSPS Protocols.

The red "X" symbols in Figure 9 below represent fires that were captured by both the CFP<sub>D</sub> and Technosylva CFB. The blue dots under the line represent fires below the CFP<sub>D</sub> guidance. Blue dots "•" above the line represent events that did not meet the mFPC criteria.

**Figure 9: CFP<sub>D</sub> Guidance**



This analysis was a critical step to ensure the most catastrophic historical incidents are identified by PSPS guidance while considering the significant impacts to customers from PSPS events across multiple dimensions (e.g., duration and frequency). This ensures that future PSPS events will capture conditions similarly during the most catastrophic fires while also balancing impacts to customers.

### Historical Analysis: Execution

To execute the analysis at this scale, we utilized cloud computing resources to run PSPS model guidance for every hour at every 2 x 2 km grid cell across the historical data set to determine the number of times and locations PSPS guidance is exceeded. Each location exceeding guidance is then grouped into events to determine the location and size of each PSPS event given the weather and fuels present at that time under the parameters of the study version. This allows us to determine if synoptic-driven events (e.g., Diablo wind events) are being identified, and if historical fires attributable to PG&E equipment may have been mitigated.

### Verification of PSPS Protocols

In addition to these sensitivity studies, PG&E performed extensive verification of the PSPS protocols using several internal and external datasets. The goal of these analyses was to first determine if certain weather events are being captured (e.g., Diablo and offshore wind events), and second, to determine if lines that have been implicated in historic catastrophic fires would have been identified by the guidance.

The following internal datasets were used in the analysis:

- Climatology of Diablo wind events
- Hourly high-resolution wind maps from the climatology data set
- Distribution and transmission outage history
- The weather signal database
- Exploratory and dynamic dashboards created with internal and external data

The following external datasets were used in the analysis:

- National Center for Environmental Prediction (NCEP) North American Regional Reanalysis Archive (NARR) synoptic weather maps
- Historical fire occurrence data compiled by federal agencies
- RFWs from the NWS
- High risk of potential large fires due to wind from the GACC

The paragraphs below explain how we leveraged external and internal data to verify our PSPS protocols guidance thresholds.

### NARR Archive

PG&E acquired the NARR archive data, which dates to 1995 and made over two million maps that can be utilized to study past events. These maps are also useful to study the past conditions leading up to the event, such as the extent of precipitation events and heat waves. When the PSPS models are run through the climatology, each event identified is compared against the NARR archive by a Meteorologist to determine the large-scale atmospheric features present for each event.

### Climatology of Diablo Wind Events

PG&E also leverages the latest academic research on Diablo wind events that use surface-based observations to create a climatology of Diablo wind events. We adapted the criteria and processed it hour-by-hour through the 31-year weather climatology to determine the frequency, magnitude, and timing of Diablo winds. The output of this analysis was a 31-year calendar of Diablo wind events experienced in the PG&E service area. As it relates to PSPS directly, the strongest Diablo wind events were evaluated to verify if PSPS guidance also selects these days



for potential PSPS events. Using the days identified by PSPS guidance and the Diablo event list, a high-level comparison was completed to evaluate overlap of the events.

Any events that did not meet PSPS guidance were evaluated further using additional data sources described in this section. For example, the NARR archive proved useful, as antecedent conditions such as rainfall before an event and the magnitude of the event could be evaluated.

#### PG&E's Weather Signal Database

PG&E's Meteorology team built, and continues to maintain, a 'weather signal' database that identifies each day from January 1, 1995, to present that experienced any weather-related outages on the distribution system. It also lists the main weather driver (e.g., heat, low-elevation snow, northeast wind, winter storm, etc.) for these outages. If distribution outage activity is not driven by weather, the day is classified as a "Blue Sky"<sup>55</sup> day. This dataset combines weather and distribution outage activity that allows rapid filtering of events based on the main weather drivers. To validate PSPS guidance, we used a combination of "Northeast" wind days and "BlueSky" days.

The PSPS guidance was validated against all Northeast wind days in the database. This is similar, but complimentary to the Diablo event analysis as it also accounts for outage activity observed on those days. Events were also compared against "Blue Sky" days to ensure that PSPS would not be recommended for a high percentage of non-weather-impact days where little to no outage activity was observed.

#### Red Flag Warnings from the NWS

PG&E also validated PSPS guidance against RFWs from the NWS. RFWs mean warm temperatures, very low humidity, and stronger winds are expected to combine to produce an increased risk of fire danger. These RFWs were collected for the past six years (2015 – 2020) in shapefile format and used to evaluate the timing and spatial extent of historical RFWs against PSPS guidance. It should be noted that each NWS office in the PG&E service area has different RFW criteria, making direct and quantifiable comparison challenging. However, this dataset is used to evaluate whether RFWs were issued when PSPS guidance was met. Based on historical PSPS analysis, RFWs are expected to occur more frequently and cover a broader area than the area covered by PSPS events.

#### High Risk of Potential Large Fires due to Wind from the GACC

PG&E also validated PSPS guidance against historical "High Risk" days from the GACC. The GACCs issue High Risk Day alerts when fuel and weather conditions are predicted that historically have resulted in a significantly higher than normal chance for a new large fire or for significant growth on existing fires. Examples of critical weather conditions are high winds, low humidity, an unstable atmosphere, and very hot weather. Similar to the RFW analysis, this dataset was used to evaluate if High Risk days were issued when PSPS guidance was high. Blue Sky Day is defined as "The same as a non-weather impact day (no or very limited impacts due to weather)". Similar to RFWs, based on historical PSPS analysis, High Risk Days are expected to occur more frequently and cover a broader area than PSPS.

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<sup>55</sup> Blue Sky Day is defined as "The same as a non-weather impact day (no or very limited impacts due to weather)"

### Hourly High-Resolution Wind Maps from PG&E Climatology Data Set

PG&E created hourly maps from high-resolution climatology and a web-based application to display any hour across 30 years. For each event that meets PSPS guidance in the climatology, these maps were evaluated by a Meteorologist to better understand the nature of the event, wind speeds, antecedent conditions, and the spatial extent of strong winds. It's important to note forecast wind speeds are available in the same exact format, allowing Operational Meteorologists to put forecast events in perspective with historical events using the same model.

### Detailed Event Dashboards

To evaluate the thresholds, Meteorologists and data scientists utilized the data sources described above to evaluate historical PSPS events hour-by-hour to verify the locations and times that are being flagged as meeting PSPS guidance. These dashboards determine if historical fire events would have been flagged by PSPS guidance. Meteorologists evaluated these data sources hourly to verify model performance of the IPW model and suitability for operations. The PSPS guidance can be evaluated spatially using the dashboard map integration, while the size and timing of the event can be evaluated using the timeseries integration.

## **Section 11.2 - Any lessons learned that will lead to future improvement for the utility (SED Additional Information.)**

### **Response:**

PG&E collects lessons learned input from staff during and after every PSPS EOC activation to identify best practices and opportunities for improvement. See Table 13 below or lessons learned for the potential December 15, 2023 PSPS.

**Table 13: Lessons Learned from the Potential December 15, 2023 PSPS**

<b>Issue</b>	<b>Discussion</b>	<b>Resolution</b>
Data Quality	An address in Santa Barbara County was mapped incorrectly in our database which caused an area within the County to be shown as in scope. The information was reflected on the PSPS Portal and the Emergency Web.	This address was corrected in the source system.

**Section 12 – Other Relevant Information**

PG&E did not de-energize customers, therefore, Section 12 is not applicable.

**APPENDIX**

PACIFIC GAS AND ELECTRIC COMPANY

APPENDIX A

SECTION 2 – DECISION MAKING PROCESS

## Appendix A: DECISION MAKING PROCESS

**Table A-1.1: Factors Considered in the Decision to Shut Off Power for Each Distribution Circuit De-energized During the Potential December 15, 2023 PSPS Event**

\* Please see Table A-1.2 for the description of each column header, as well as the unit and value provided.

Circuit Name	Time Place	Forecast																		Agency				Observed												
		ws_mph	ws_mph_50m	wg_ec_mph	temp_2m_f	flame_length_ft_2hr	rate_of_spread_chhr_2hr	area_acres_8hr	rh_2m	vpd2m_mb	prob_cat	dfm_10hr	dfm_100hr	dfm_1000hr	lfm_herb	lfm_woody	lfm_chamise_new	sum_tree_ovr	prob_ignition	cfpd	HWV <sup>1</sup>	HWA <sup>2</sup>	RFW <sup>3</sup>	GACC_High_Risk <sup>4</sup>	Observed_ws_mph	Observed_wg_mph	Observed_temp_f	Observed_RH_%	Observed_ws_mph_AC	Observed_wg_mph_AC	Observed_temp_f_AC	Observed_RH_%_AC	open_pspstags <sup>5</sup>	Tx_impacts_yes_no <sup>6</sup>	PSPS_Potential_Risk_Consequence <sup>7</sup>	PSPS_Potential_Benefit <sup>8</sup>
CAL WATER 1102	TP 7	28	35	45	77	11.7	166.7	17140	10.8	27.7	0.841	0.051	0.094	0.115	30	73	64	4.3	0.000879	4	N/A	N/A	N/A	N/A	35	47	71	12	10	15	66	15	N/A	N/A	N/A	N/A
LAMONT 1104	TP 6	34	45	56	76	13.8	238.1	37232	12.1	26.4	0.832	0.056	0.095	0.116	30	73	63	-99	0.004286	19.6	N/A	N/A	N/A	N/A	35	47	75	12	10	15	66	16	N/A	N/A	N/A	N/A
MAGUNDEN 1108	TP 6	30	39	49	77	10.9	148.7	20709	11.6	26.9	0.784	0.056	0.1	0.122	30	73	64	-99	0.002578	9.2	N/A	N/A	N/A	N/A	35	47	75	12	10	15	66	16	N/A	N/A	N/A	N/A
POSO MOUNTAIN 2101	TP 8	15	23	25	68	9.2	103.6	14181	15.7	19.7	0.821	0.061	0.1	0.12	30	73	66	40.3	0.000695	3.6	N/A	N/A	N/A	N/A	13	20	75	10	3	5	68	18	N/A	N/A	N/A	N/A
POSO MOUNTAIN 2103	TP 8	21	30	39	73	11.8	166.8	22732	12.1	24.2	0.849	0.056	0.097	0.119	30	73	64	63.00000000000001	0.000971	5.5	N/A	N/A	N/A	N/A	15	27	70	12	6	7	67	18	N/A	N/A	N/A	N/A
SANTA YNEZ 1101	TP 10	18	30	42	73	13.5	42.9	3681.9	13.6	23.3	0.906	0.059	0.092	0.131	37	76	70	326.39999999999998	0.002236	11	N/A	N/A	N/A	N/A	19	27	77	11	4	6	70	23	N/A	N/A	N/A	N/A
SANTA YNEZ 1102	TP 10	20	32	47	74	26.9	39.8	2102.7	16.9	23.2	0.881	0.066	0.098	0.135	39	73	71	751.50000000000003	0.002104	11.7	N/A	N/A	N/A	N/A	18	31	79	7	5	11	70	17	N/A	N/A	N/A	N/A
SCE REFUGIO 1701	TP 10	12	19	29	67	15.9	39.8	2102.7	24.8	16	0.793	0.076	0.111	0.135	40	73	71	9.6	0.001048	3.4	N/A	N/A	N/A	N/A	18	31	75	13	5	11	70	17	N/A	N/A	N/A	N/A
TEJON 1102	TP 3	42	53	69	69	46.4	271.9	28440	13.3	20.6	0.895	0.056	0.094	0.115	32	68	64	2474.70000000000016	0.004411	27.4	N/A	N/A	N/A	N/A	34	54	72	12	21	27	65	13	N/A	N/A	N/A	N/A
TEJON 1103	TP 4	16	23	25	76	13.4	210.2	7696.3	13.2	26.4	0.759	0.061	0.104	0.123	35	73	65	3.8	0.000536	1.5	N/A	N/A	N/A	N/A	13	19	66	28	4	4	60	41	N/A	N/A	N/A	N/A
ZACA 1102	TP 9	24	36	49	74	13.4	59.5	8294.6	12.5	24.7	0.916	0.058	0.085	0.119	34	70	67	559.90000000000002	0.00206	10.2	N/A	N/A	N/A	N/A	19	27	80	7	3	6	66	16	N/A	N/A	N/A	N/A

**\*\* Note: PSPS decision making on Distribution does not occur at a per-circuit level, and instead occurs at the level of our 2 x 2 km weather and fuels model grid. These outputs are used in a GIS system to visualize the areas of concern by area, which meteorologists and Distribution Assets Health Specialists review to scope the event. The data provided here is representative of our high-resolution weather model data, which is driven by the Weather Research and Forecasting model. It is not inclusive of other model information reviewed by meteorologists that include external, public global and high-resolution weather models. This temporal and areal review of the risk, the operational timeline required to create the scope as well as any areas that were added based on subject matter expertise of meteorologists may lead to some circuits being de-energized that do not strictly exceed PSPS guidance.**

<sup>1</sup> PG&E did not de-energize customers, therefore, this field is not applicable.  
<sup>2</sup> PG&E did not de-energize customers, therefore, this field is not applicable.  
<sup>3</sup> PG&E did not de-energize customers, therefore, this field is not applicable.  
<sup>4</sup> PG&E did not de-energize customers, therefore, this field is not applicable.  
<sup>5</sup> PG&E did not de-energize customers, therefore, this field is not applicable.  
<sup>6</sup> PG&E did not de-energize customers, therefore, this field is not applicable.  
<sup>7</sup> PG&E did not de-energize customers, therefore, this field is not applicable.  
<sup>8</sup> PG&E did not de-energize customers, therefore, this field is not applicable.

**Table A.1-2: Description, Units, and Value provided for Factors Considered in the Decision to Shut Off Power for Each Distribution Circuit De-energized During the Potential December 15, 2023 PSPS Event**

Forecast / Agency / Observed	Value	Name	Unit	Value Provided	Description
Observed	<b>Observed wg_mph</b>	Observed Peak Wind Gust during Event	mph	max	The maximum wind gust recorded by weather stations mapped to each circuit from planned de-energization time to anticipated all-clear time.
Observed	<b>Observed temp_f</b>	Observed Temperature during Event	degrees F	max	The maximum temperature recorded by weather stations mapped to each circuit from planned de-energization time to anticipated all-clear time.
Observed	<b>Observed RH_%</b>	Observed Relative Humidity During Event	%	min	Minimum relative humidity recorded by all weather stations mapped to each circuit from planned de-energization time to anticipated all-clear time.
Observed	<b>Observed ws_mph_AC</b>	Observed Sustained Wind Speed at All Clear	mph	max	The maximum sustained wind speed recorded by weather stations mapped to each circuit at the all-clear time.
Observed	<b>Observed wg_mph_AC</b>	Observed Peak Wind Gust at All Clear	mph	max	The maximum wind gust recorded by weather stations mapped to each circuit at the all-clear time.
Observed	<b>Observed temp_f_AC</b>	Observed Temperature at All Clear	degrees F	max	The maximum temperature recorded by weather stations mapped to each circuit at the all-clear time.
Observed	<b>Observed RH_%_AC</b>	Observed Relative Humidity at All Clear	%	min	Minimum relative humidity recorded by all weather stations mapped to each circuit at the all-clear time.
Observed	<b>open_pspstags</b>	Open PSPS Qualified Tags	N/A	Yes/No During Event	PSPS-Qualified Tags include P1 (tree represents an immediate risk) and P2 (tree is damaged or diseased and could fall into nearby power lines) tree tags and Electric Corrective tags (Priority A - emergency, B - urgent, and E/F - risk-based)
Observed	<b>Tx_impacts_yes_no</b>	Impacted by Transmission	N/A	Yes/No During Event	Distribution lines that would have been de-energized due to de-energization of upstream transmission lines, regardless of whether those distribution lines would have also been de-energized due to direct distribution PSPS.
Forecast	<b>ws_mph</b>	Sustained wind speeds	mph	max	Sustained windspeed in miles per hour at 10 meters above ground level.
Forecast	<b>ws_mph_50m</b>	Sustained wind speeds at 50 m	mph	max	Sustained windspeed in miles per hour at 50 meters above ground level.
Forecast	<b>wg_ec_mph</b>	Forecasted Peak Wind Gust	mph	max	Wind gust in miles per hour at 10 meters above ground level.
Forecast	<b>temp_2m_f</b>	Temperature	degrees F	max	Temperature in Fahrenheit at 2 meters above ground level.
Forecast	<b>flame_length_ft_2hr</b>	Flame length	ft	max	Flame length in feet on fire front for first 2 hours of fire spread simulation from Technosylva.
Forecast	<b>rate_of_spread_chhr_2hr</b>	Rate of spread	chains/hr	max	Rate of fire spread in chains per hour for first 2 hours of fire spread simulation from Technosylva.
Forecast	<b>area_acres_8hr</b>	Acres burned	acres	max	Acres burned in the 8-hour fire spread simulation from Technosylva.
Forecast	<b>rh_2m</b>	Relative Humidity	%	min	Relative Humidity in percent at 2 meters above ground level.
Forecast	<b>vpd2m_mb</b>	Vapor Pressure Deficit	mb	max	Vapor Pressure Deficit in millibar at 2m above surface.

Forecast / Agency / Observed	Value	Name	Unit	Value Provided	Description
Agency	<b>HWW</b>	High Wind Warning	N/A	Yes/No during event	High Wind Warning from the Federal National Weather Service.
Agency	<b>HWA</b>	High Wind Advisory	N/A	Yes/No during event	High Wind Advisory from the Federal National Weather Service.
Agency	<b>RFW</b>	Red Flag Warning	N/A	Yes/No during event	Red Flag Warning from the Federal National Weather Service.
Agency	<b>GACC_HighRisk</b>	GACC High Risk	N/A	Yes/No during event	High Risk issued by the Federal North or South Operations Predictive Services.
Forecast	<b>prob_cat</b>	Fire Potential Index (FPI)	probability outputs	max	Fire Potential Index (FPI) Model Output - Probability of a catastrophic fire if an ignition were to occur. FPI component of the CFP <sub>D</sub> model.
Forecast	<b>dfm_10hr</b>	Dead Fuel Moisture Content 10 hrs	fuel moisture fraction	min	Dead Fuel Moisture in 10-hour fuel moisture class. Can be scaled to percentage by multiplying by 100.
Forecast	<b>dfm_100hr</b>	Dead Fuel Moisture Content 100 hrs	fuel moisture fraction	min	Dead Fuel Moisture in 100-hour moisture class. Can be scaled to percentage by multiplying by 100.
Forecast	<b>dfm_1000hr</b>	Dead Fuel Moisture Content 1000 hrs	fuel moisture fraction	min	Dead Fuel Moisture in 1000-hour moisture class. Can be scaled to percentage by multiplying by 100.
Forecast	<b>lfm_herb</b>	Live Fuel Moisture Content-herbaceous	%	min	Live Fuel Moisture Percentage of herbaceous plant species. (% of species that is comprised of water)
Forecast	<b>lfm_woody</b>	Live Fuel Moisture Content-woody	%	min	Live Fuel Moisture Percentage of woody plant species. (% of species that is comprised of water)
Forecast	<b>lfm_chamise_new</b>	Live Fuel Moisture Content-shrub	%	min	Live Fuel Moisture Percentage of Chamise (shrub) plant species. (% of species that is comprised of water)
Forecast	<b>sum_tree_ovr</b>	Tree Overstike	ft	max	Sum of tree overstrike in a 2 x 2 km grid cell area in ft.
Forecast	<b>prob_ignition</b>	Ignition Probability Weather (IPW) Model Output	Probability	max	Ignition Probability Weather (IPW) Model Output - Probability of Ignition based on the probability of outages by cause. Ignition component of the CFP <sub>D</sub> model.  <b>Ignition Probability Weather Model</b> - A model that provides estimates of the probability of an ignition given an outage on an hourly basis
Forecast	<b>cfpd</b>	Catastrophic Fire Probability (CFP <sub>D</sub> )	Scaled Probability	max	The product of probability of catastrophic fire (Prob_Cat) and IPW - probability of ignition (prob_ignition). This product is called the (CFP <sub>D</sub> ) Catastrophic Fire Probability distribution model. Scaled by 1000 to covert to an integer value.
Observed	<b>Observed ws_mph</b>	Observed Sustained Wind Speed during Event	mph	max	The maximum sustained wind speed recorded by weather stations mapped to each circuit from planned de-energization time to anticipated all-clear time.



PACIFIC GAS AND ELECTRIC COMPANY

APPENDIX B

SECTION 6 – PUBLIC SAFETY PARTNERS CONTACTED

## **Appendix B: PUBLIC SAFETY PARTNERS CONTACTED**

*Table B-1. Public Safety Partners Contacted*

<b>Organization/Jurisdiction</b>	<b>Title</b>	<b>HFTD or HFRA Tier <sup>9</sup></b>	<b>Date/Time Contacted</b>
KERN County Communication Facility	AMERICAN TOWER CORPORATION	Tier 2	12/13/2023 08:00 PST
KERN County Communication Facility	AT&T MOBILITY LLC	Tier 2	12/13/2023 08:00 PST
KERN County Communication Facility	AT&T SERVICES INC	Tier 2	12/13/2023 08:00 PST
KERN County Communication Facility	T-MOBILE WEST LLC	Tier 2	12/13/2023 08:00 PST
KERN County Communication Facility	VERIZON	Tier 2	12/13/2023 08:00 PST
KERN County Emergency Services Facility	CALIFORNIA HIGHWAY PATROL	Tier 2	12/13/2023 08:00 PST
KERN County Emergency Services Facility	COUNTY OF KERN	Tier 2	12/13/2023 08:00 PST
KERN County Other Facility	CROWN CASTLE USA INC	Tier 2	12/13/2023 08:00 PST
KERN County Other Facility	HARL, ELIZABETH	Tier 2	12/13/2023 08:00 PST
KERN County Water and Waste Water Facility	LEBEC COUNTY WATER DISTRICT	Tier 2	12/13/2023 08:00 PST
Kern County	Board Chair	HFTD Tier 2, Tier 3, Zone 1, HFRA	12/13/2023 07:33 PST
Kern County	County Administrative Officer	HFTD Tier 2, Tier 3, Zone 1, HFRA	12/13/2023 07:33 PST
Kern County	County Clerk	HFTD Tier 2, Tier 3, Zone 1, HFRA	12/13/2023 07:33 PST
Kern County	Emergency	HFTD Tier 2, Tier 3, Zone 1, HFRA	12/13/2023 08:29 PST
Kern County	Emergency Supervisor	HFTD Tier 2, Tier 3, Zone 1, HFRA	12/13/2023 08:29 PST
Kern County	Fire Chief	HFTD Tier 2, Tier 3, Zone 1, HFRA	12/13/2023 07:33 PST
Kern County	MHOAC	HFTD Tier 2, Tier 3, Zone 1, HFRA	12/13/2023 07:33 PST
Kern County	Manager	HFTD Tier 2, Tier 3, Zone 1, HFRA	12/13/2023 07:33 PST
Kern County	Sheriff	HFTD Tier 2, Tier 3, Zone 1, HFRA	12/13/2023 07:33 PST
Kern County	Supervisor	HFTD Tier 2, Tier 3, Zone 1, HFRA	12/13/2023 07:33 PST

<sup>9</sup> PG&E uses a High Fire Risk Area (HFRA) classification in addition to HFTD to determine PSPS scope. Any area outside of HFTD is re-classified as HFRA.

Organization/Jurisdiction	Title	HFTD or HFRA Tier <sup>9</sup>	Date/Time Contacted
Kern County Arvin	Police Department	N/A*	12/13/2023 07:33 PST
Kern County Arvin	Arvin Fire	N/A*	12/13/2023 08:29 PST
Kern County Arvin	City Clerk	N/A*	12/13/2023 07:33 PST
Kern County Arvin	City Manager	N/A*	12/13/2023 07:33 PST
Kern County Arvin	Council Member	N/A*	12/13/2023 07:33 PST
Kern County Arvin	Mayor	N/A*	12/13/2023 07:33 PST
Kern County Arvin	Mayor Pro Tem	N/A*	12/13/2023 07:33 PST
Kern County Bakersfield	City Clerk	HFTD Tier 2, HFRA	12/13/2023 07:33 PST
Kern County Bakersfield	Chief	HFTD Tier 2, HFRA	12/13/2023 07:33 PST
Kern County Bakersfield	City Hall	HFTD Tier 2, HFRA	12/13/2023 07:33 PST
Kern County Bakersfield	Deputy Chief	HFTD Tier 2, HFRA	12/13/2023 07:33 PST
Kern County Bakersfield	General	HFTD Tier 2, HFRA	12/13/2023 08:29 PST
Kern County Bakersfield	Mayor	HFTD Tier 2, HFRA	12/13/2023 07:33 PST
Kern County Bakersfield	Police Chief	HFTD Tier 2, HFRA	12/13/2023 07:33 PST
Kern County Tribal	Chairperson	HFTD Tier 2, Tier 3, Zone 1, HFRA**	12/13/2023 07:33 PST
Kern County Tribal	Environmental Director	HFTD Tier 2, Tier 3, Zone 1, HFRA**	12/13/2023 07:33 PST
Kern County Tribal	Historic Preservation Officer	HFTD Tier 2, Tier 3, Zone 1, HFRA**	12/13/2023 07:33 PST
Kern County Tribal	Housing Committee	HFTD Tier 2, Tier 3, Zone 1, HFRA**	12/13/2023 07:33 PST
Kern County Tribal	Tribal Administrator	HFTD Tier 2, Tier 3, Zone 1, HFRA**	12/13/2023 07:33 PST
Kern County Tribal	Tribal Chair	HFTD Tier 2, Tier 3, Zone 1, HFRA**	12/13/2023 07:33 PST
Kern County Tribal	Tribal Chairman	HFTD Tier 2, Tier 3, Zone 1, HFRA**	12/13/2023 07:33 PST
SANTA BARBARA County Communication Facility	AMERICAN TOWER CORPORATION	Tier 3	12/13/2023 08:00 PST
SANTA BARBARA County Communication Facility	CROWN CASTLE INTERNATIONAL	Tier 3	12/13/2023 08:00 PST
SANTA BARBARA County Communication Facility	FRONTIER COMMUNICATIONS CORPORATION DIP	Tier 3	12/13/2023 08:00 PST
SANTA BARBARA County Communication Facility	SBA TOWERS	Tier 3	12/13/2023 08:00 PST
SANTA BARBARA County Communication Facility	T-MOBILE WEST LLC	Tier 3	12/13/2023 08:00 PST
SANTA BARBARA County Communication Facility	VERIZON	Tier 3	12/13/2023 08:00 PST
Santa Barbara County	Fire Chief	HFTD Tier 2, Tier 3, HFRA	12/13/2023 07:33 PST

Organization/Jurisdiction	Title	HFTD or HFRA Tier <sup>9</sup>	Date/Time Contacted
Santa Barbara County	OEM Duty Officer	HFTD Tier 2, Tier 3, HFRA	12/13/2023 07:33 PST
Santa Barbara County	OES Director	HFTD Tier 2, Tier 3, HFRA	12/13/2023 07:33 PST
Santa Barbara County	Sheriff	HFTD Tier 2, Tier 3, HFRA	12/13/2023 07:33 PST
Santa Barbara County CCA	General	HFTD Tier 2, Tier 3, HFRA	12/13/2023 07:33 PST
Santa Barbara County Tribal	Chairperson	HFTD Tier 2, Tier 3, HFRA**	12/13/2023 07:33 PST

*\* PG&E's circuits can run miles long and span across multiple jurisdictions. Some Public Safety Partners outside of HFRA and HFTD were also in the potentially impacted scope in order to deenergize areas within HFRA and HFTD for safety.*

*\*\* Impacted federally and non-federally recognized Tribes' HFRA/HFTD classifications reflect county designations.*

PACIFIC GAS AND ELECTRIC COMPANY

APPENDIX C

SECTION 9 – COMMUNITY RESOURCE CENTER LOCATIONS

## **Appendix C: LIST OF PG&E COMMUNITY RESOURCE CENTERS**

**Table C-1. Community Resource Centers Provided by PG&E**

*The table below provided details of the one CRC that PG&E mobilized during the December 15, 2023 potential PSPS event, including specific locations, dates and times opened and closed, total attendance for each location, and amenities provided.*

#	County	Site Name	Address	Operating Hours (PDT)			Total Visitors	Indoor / Micro / Mobile	Amenities Provided
				Day 1 Dec-15	Day 2 Dec-16	Day 3 Mon-DD			
1	Kern	Lebec Post Office	2132 Lebec Road	0800-2200	0800-1030	n/a	170	Outdoor	Wi-Fi, Restroom, Bottled Water, Device Charging, Snacks, Seating

## **VERIFICATION**

I, undersigned, say:

I am an officer of PACIFIC GAS AND ELECTRIC COMPANY, a corporation, and am authorized to make this verification for that reason.

I have read the foregoing “PG&E Public Safety Power Shutoff Report to the CPUC” for the potential December 15, 2023, PSPS Event and I am informed and believe the matters stated therein to be true.

I declare under penalty of perjury that the foregoing is true and correct. Executed at Oakland, California this 2<sup>nd</sup> day of January 2024.



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MARK QUINLAN  
SENIOR VICE PRESIDENT  
WILDFIRE & EMERGENCY OPERATIONS