



Wildfire Safety Power Outages

2023 DECISION-MAKING GUIDE



Some of the measures included in this document are contemplated as additional precautionary measures intended to further reduce the risk of wildfires. "PG&E" refers to Pacific Gas and Electric Company, a subsidiary of PG&E Corporation. ©2023 Pacific Gas and Electric Company. All rights reserved. CCC-0823-6817. 09/06/2023

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1 Introduction

Even despite historic rain and snowfall in 2023, wildfires remain a risk to communities. Extreme weather and drought will continue to impact California, causing an increase in wildfire risk and a longer wildfire season. Our layers of wildfire protection help us protect these communities and respond to increased risk. These layers include safety tools that may result in wildfire safety power outages.

A Public Safety Power Shutoff, or PSPS, is one type of safety outage. A PSPS helps prevent wildfires during dry, windy weather.

Another type of safety outage is a result of Enhanced Powerline Safety Settings, or EPSS. These safety settings are enabled when wildfire risk is higher. To prevent a wildfire, power is automatically turned off if a hazard is detected.

Wildfire safety outage criteria

Before we implement a PSPS, we carefully monitor data to confirm that conditions require it. If all minimum fire conditions are met, we conduct an in-depth review of fire risk before deciding if we need to turn off power for safety.

EPSS are generally enabled from May to November, when wildfire risk is the greatest. We conduct daily analysis to determine wildfire risk and whether safety settings are needed. If conditions do not meet the need, EPSS are disabled. However, safety settings are enabled year-round if there is an increased potential for wildfires.

Supporting communities

Making sure our customers and partners stay informed before and during an outage is a top priority. Before a PSPS, we'll share information via text, phone or email. We'll also alert customers if an EPSS-related outage occurs. We cannot predict outages from EPSS-enabled lines, however, and cannot provide alerts in advance. Public safety partners and community-based organizations (CBOs) may access the Outage or PSPS Portal to find outage information.

We know that losing power is disruptive. To support customers, we have programs in place to help them prepare for and stay safe during a safety outage. Resources include backup power, emergency planning, local support, food replacement and more.

2 Overview

Safety is our most important responsibility. There are two types of wildfire safety power outages that communities may experience.

Public Safety Power Shutoffs (PSPS)

High winds can cause tree branches and debris to contact powerlines and possibly start and spread a wildfire. To avoid this, we may need to turn off power during dry, windy weather. This is called a Public Safety Power Shutoff, or PSPS. A PSPS is a last-resort safety measure taken by utility providers to help prevent wildfires.

Enhanced Powerline Safety Settings (EPSS)

Powerlines in and near high fire-risk areas have Enhanced Powerline Safety Settings, or EPSS, installed. Devices protecting powerlines have settings that are turned on when wildfire risk is high and can automatically turn off power within one-tenth of a second. This occurs if there is a hazard, like a tree branch falling onto a line. Turning off power when a hazard is present is a key component of our multifaceted EPSS protection. In addition, these settings detect high-impedance faults that could lead to an ignition. Quickly turning off power helps prevent ignitions that can start a wildfire. While these settings help keep customers safe, unplanned outages may occur.

Understanding safety outages

This document explores:

- How we evaluate weather and environmental risks that may lead to a safety outage
- When we determine an outage is necessary for public safety
- How we support and protect our customers and communities

Building a stronger and safer electric system

Our other layers of wildfire protection are reducing wildfire risk and improving service. These layers include:

- Moving hundreds of miles of powerlines underground in areas where wildfire risk is higher
- Making poles and powerlines stronger
- Trimming trees to keep them away from powerlines

3 Tools and Technology to Support Safety Outage Decision-Making

High-resolution weather forecasting

To predict wildfire behavior, we partner with leading experts. Using high-resolution weather and fuel moisture forecasting models, we are able to generate five-day lookahead fire potential forecasts.

How do we analyze wildfire risk?

Historical weather data can answer questions such as:

- What weather & fuel moisture values best predict if and when large fires may occur?
- Where do Diablo and Santa Ana winds most frequently develop?
- Have Diablo wind events increased over the past 30 years?
- At what wind speeds do we see an increase in outages?

Tracking weather in real time

Our dedicated meteorology team continually monitors weather conditions and potential wildfire risks.

Using advanced weather modeling systems and data from our network of over 1,500 weather stations, this team is able to forecast and track weather conditions in real time.



State-of-the-art weather forecasting:

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

Machine learning models

Our machine learning models provide a better understanding of historical weather events and improve our weather forecasting. These models use:

- Precise location data points across our service territory to conduct hourly weather analyses using high-resolution, historical data
- Over 100 trillion historical data points
- 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

Who makes up the PG&E team?

- Leadership from our Meteorology and Fire Science, Meteorology Operations, and Systems and Analytics teams
- Team members with backgrounds in meteorology, data science, fire weather analysis, high-resolution weather modeling, cloud computing and more

What do we do?

- Analyze historic weather patterns to inform future decisions
- Create high-resolution weather models
- Use our weather station and high-definition camera networks to monitor and forecast wildfire risks
- Inform PSPS and EPSS decision-making

Who do we work with?

Our team regularly collaborates with San Jose State's Fire Weather Research Lab, the University of Wisconsin-Madison's Space Science and Engineering Center, Technosylva, the National Weather Service, the U.S. Forest Service, Atmospheric Data Solutions and others.

PSPS decision-making

We've developed tools and models to better understand the impact of potential fire ignitions on communities. We partner 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.

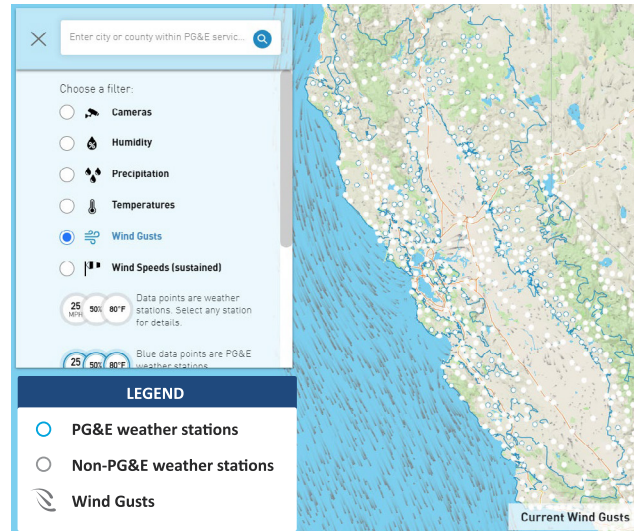
Each day, we deliver our wildfire conditions datasets to our partners at Technosylva, who then perform over 100 million fire spread simulations. These are done every three hours for the upcoming five days. These simulations provide fire spread scenarios that help identify circuits that may be at risk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

Weather awareness

Our weather web page provides current weather conditions, an interactive weather map and tools to prepare for a PSPS.

- Learn about the role weather plays in a PSPS
- Find our seven-day PSPS potential forecast
- Review criteria to determine a PSPS
- Explore our real-time weather map

Learn more at: pge.com/weather



EPSS decision-making

We evaluate if EPSS should be enabled or disabled at the circuit level. We use advanced tools and apply state-of-the-art machine learning models to determine when and where safety settings should be enabled. Based on the ongoing elevated risk for wildfire, we use our daily analysis of multiple weather models and operational flexibility to determine risk and whether settings can be safely disabled.

Ensemble forecasting

We use a range of forecast outcomes, called an ensemble, to make decisions for EPSS enablement. Ensemble forecasting uses eight different forecasts to help determine the range, spread and uncertainty of various weather predictions.

This improved modeling and location precision helps us better identify specific areas at an elevated risk of wildfire. It also helps identify lines at less risk. This assists us with determining if the lines can be excluded from potential safety shutoffs or EPSS enablement.

We prioritize customer safety as our guide in all decision-making.

4 Safety Power Outage Criteria

PSPS criteria

We carefully monitor data from multiple sources to confirm that conditions require an outage for public safety. These sources include weather data and federal forecasts, such as:

- **High-resolution forecasts** of the FPI Model, IPW Model and Technosylva fire spread simulations
- **Weather model forecast data** from external sources, including American, European and Canadian weather models
- **Red Flag Warnings** from the National Weather Service
- **Real-time data** from weather stations
- **Live feeds** from our Alert California wildfire cameras
- **High-risk forecasts** of Significant Fire Potential from the Geographic Area Coordination Center
- **Fire weather outlooks** from the Storm Prediction Center, which is part of the National Weather Service and National Oceanic and Atmospheric Administration
- **Information received on interagency conference calls** during high-risk periods



PSPS risk-benefit analysis

While we turn off power to protect public safety, we also recognize that losing power can be disruptive and create its own safety risks. To help us better assess the potential impact of a PSPS, we analyze:

- The potential safety risk of turning the power off
- The potential risk of wildfires that could occur on the circuits being considered for a PSPS

The analysis is driven by safety, with customer reliability and financial impact scores. This helps to ensure that PSPS is being used as a last resort to protect the safety of customers and communities.

Steps for determining if a PSPS is necessary

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. We use 10 years of our high-resolution climate data to help understand wildfire risk and potential customer impacts of PSPS.

STEP 1

If all of the minimum fire conditions are met...



High fire potential



Low relative humidity



High wind speeds



Low fuel moisture

STEP 2

...we conduct an in-depth review of fire risk using three separate measures:

A. Catastrophic Fire Probability

We use machine learning to assess the likelihood of equipment failure during a given weather event and the risk of catastrophic wildfire if a failure occurs. This model uses a combination of the IPW Model and the FPI Model.

B. Catastrophic Fire Behavior

Even if the probability of a powerline or equipment failure is unlikely, we may still turn off power where the consequence of a wildfire would be extreme.

C. Vegetation and Electric Asset Criteria Considerations


We identify areas where tree or electric compliance issues may increase the risk of ignition.

STEP 3

If any of the three measures in Step 2 are met, we turn off power for safety.

Determining the event scope and power outage area

Each of the three measures is evaluated hourly across more than 45,000 small geographic areas called grid cells. Each area is four square kilometers. We define and prepare for a potential PSPS if at least 25 grid cells out of >45,000 are meeting our Catastrophic Fire Probability in an hour. We then scope all circuits, meeting step 2 for PSPS, and identify start and end times to facilitate customer and community notifications. If real-time conditions warrant, the circuits within these areas are de-energized. Because powerlines travel across long distances, customers outside the affected area may also be impacted.

See pages 9-14 for additional details on each step. 

STEP 1 Minimum fire conditions

As outlined on page 8, the first step to determine the scope of a PSPS is to evaluate the minimum fire potential conditions. This ensures that PSPS are only executed during wind events when atmospheric conditions and fuels are dry.

Criteria that meets the minimum fire potential conditions:



>0.7

Fire Potential Index



<30%

Humidity



>19MPH

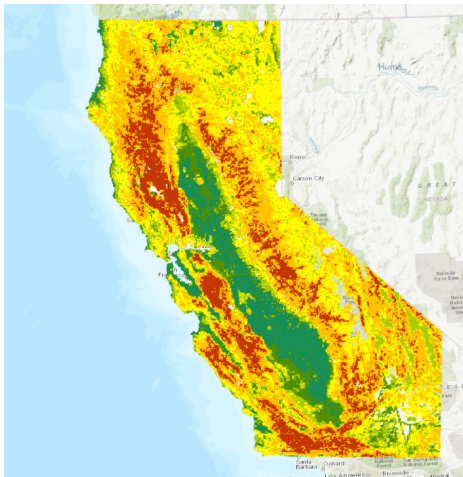
Sustained wind speeds



<9-11%

Dead fuel moisture

Fire Potential Index (FPI) Model



The FPI Model shows the probability that a fire will become large or catastrophic, which is considered as part of the PSPS decision-making process.

FPI is used as a daily and hourly tool to drive operational decisions to reduce the risk of utility-caused fires. In 2019 it was enhanced, then again in 2021 with additional data and improved analytical capabilities.

The current FPI Model combines the following to predict the probability of large and/or catastrophic fires:



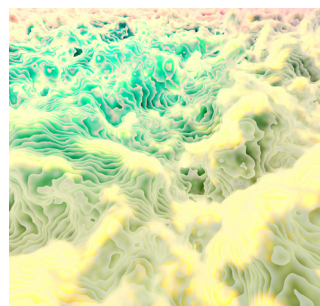
Fire weather parameters:

wind speed, temperature, vapor pressure deficit



Fuel moisture data:

dead fuel:
dead grass, fallen branches;
live fuel: grass, growing shrubs



Topography:

terrain ruggedness, slope, wind-terrain alignment



Fuel type data:

grass, shrub, timber, urban

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.

A. Catastrophic Fire Probability

The Catastrophic Fire Probability Model is the primary method used to determine the necessity of a PSPS. 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.

Ignition Probability Weather (IPW) Model

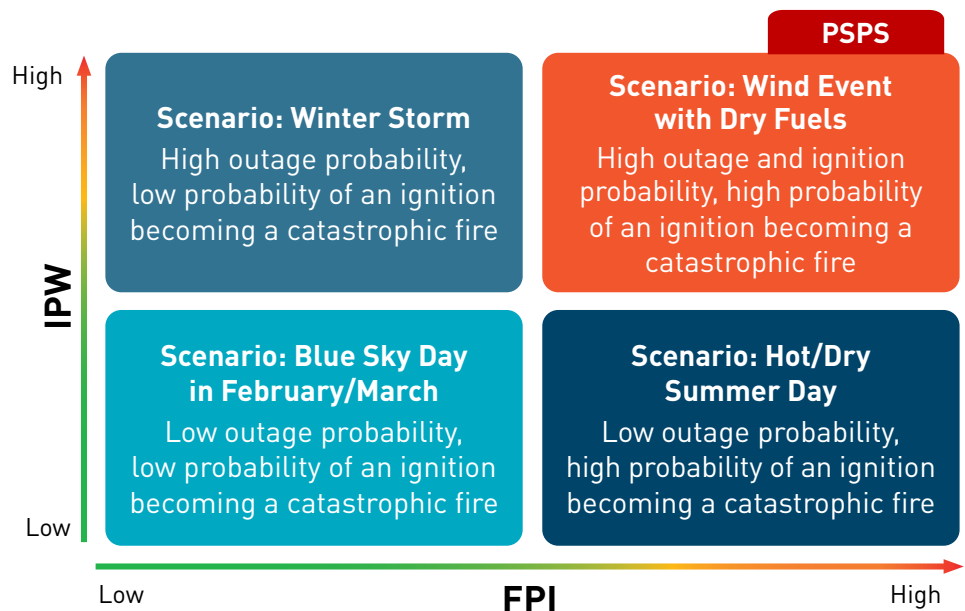
The IPW Model, a machine learning model, uses 10 years of weather data to provide the likelihood of an outage for specific circuits during past weather events. The model also uses historical data to identify the outage causes. Some tracked causes include vegetation, structural failures, electrical malfunctions and animal or third-party damage, among others.

The IPW Model analyzes the potential for several types of power outages in a given weather event. It also analyzes 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.

Tree considerations

Our PSPS protocols use a machine learning model to include the potential for trees to strike the lines. This helps our meteorology teams more accurately analyze risk posed by trees and how that translates to increased ignition probability.

We rank 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.

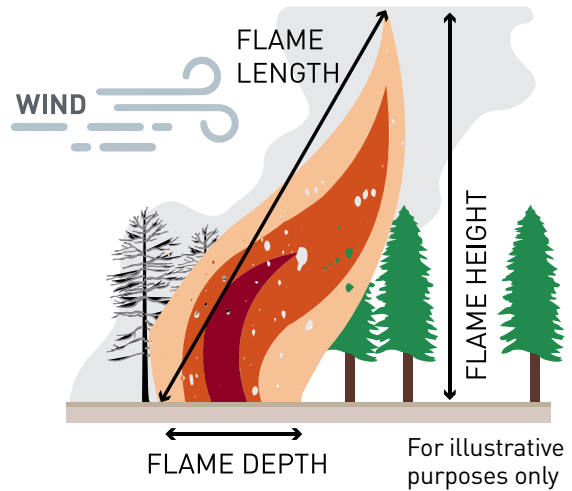


B. Catastrophic Fire Behavior

In addition to using historical data and machine learning models, we consider environmental conditions of significant wildfires, like dead and dying trees or drought conditions. This allows us to capture potential ignition events that are more rare and difficult to forecast, such as animal contact and external debris (e.g., metallic balloons) impacting the electric lines. These locations are only considered once the minimum fire potential conditions are met.

The U.S. Forest Service Rocky Mountain Research Station, a federal hub of wildfire research, has published documentation that relates the observed and modeled fire behavior to the type of fire suppression efforts that may be effective or ineffective. This includes a study of fireline intensity, which is an analysis of how wildfires can grow and spread.

Fireline intensity 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 fireline (ft) per unit of time (s). It can also be 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 fireline intensity to evaluate the potential need to turn off power.



The two rows outlined are considered catastrophic fire behavior, which would necessitate a PSPS.

FLAME LENGTH (L)	FIRELINE INTENSITY	INTERPRETATION
ft	Btu/ft/s	
<4	<100	<ul style="list-style-type: none"> Fires can generally be attacked at the head by using hand tools Hand line should hold the fire
4-8	100-500	<ul style="list-style-type: none"> Fires are too intense for direct attack on the head using hand tools Hand line cannot be relied on to hold the fire Equipment such as dozers, pumpers and retardant aircraft can be effective
8-11	500-1,000	<ul style="list-style-type: none"> Fires may present serious control problems — torching out, crowning and spotting Control efforts at the fire head will probably be ineffective
>11	>1,000	<ul style="list-style-type: none"> Crowning spotting and major fire runs are probable Control efforts at head of fire are ineffective

Andrews, et al. (2011)

C. Vegetation and Electric Asset Considerations

We review locations where high-priority vegetation or electric maintenance tags may increase the risk of ignition. We will make every effort to address these conditions in advance so that turning off power is only initiated as a last resort.

Vegetation Tags

We will turn off power if there are trees with open maintenance tags.

PRIORITY 1 TREE TAGS

Must be addressed within **24 hours**

- **In contact or showing signs of previous contact** with a primary conductor
- **Actively or at immediate risk of falling**
- **Presenting an immediate risk** to PG&E's facilities

PRIORITY 2 TREE TAGS

Must be addressed within **30 days**

- **Encroaching** within the minimum clearance requirements
- **Having any other identifiable potential safety issues** requiring expedited work

MARKED VEGETATION TAGS

Ongoing inspection process

- **Tree Removals** are trees marked for removal following inspector assessment.
- **Quality Tag Findings** are Maintenance and VC Pole Clearing tags identified through quality control inspections.

Electric Corrective Tags

We will turn off power if there is equipment with open high-risk safety-related compliance tags.

ELECTRIC TAGS

- **A tags:** Must be addressed **immediately**
- **B tags:** Must be addressed within **3 months** of identification
- **H tags, E tags and F tags*:** Are addressed based on **priority**
- **S9 notifications:** Include Staging Notification tags as part of PSPS Scoping **during an event**

We actively inspect for and schedule work to address these tags. To the extent possible, we fix these issues in the areas that may be within a severe weather footprint before a potential PSPS so we don't have to turn off power.

Transmission PSPS decision-making

In addition to analyzing distribution circuits, we also review the transmission lines and structures in areas experiencing dry, windy weather conditions. Transmission lines are like the freeways of the electric system, carrying high-voltage energy across long distances.

There is no single factor or threshold that will require turning off power to a transmission circuit. When determining whether to turn off power for safety on transmission lines, we review the same minimum fire potential conditions as with distribution lines. If these conditions are met, we will then look at the below criteria to determine whether a transmission line must be turned off.

Transmission line PSPS scoping criteria

During rare cases where weather conditions are so windy and dry that the chance of a wildfire starting would be extremely dangerous, we may need to turn off power to transmission lines even if the equipment is unlikely to fail.

We perform an initial impact analysis from the set of weather impacted lines. This initial scope is communicated to the California Independent System Operator (CAISO). We then perform more analysis identifying potential issues and the associated mitigations. Finally, the final scope—including the mitigating actions—is provided to the CAISO.

Asset Health

- Risk assessment based on FPI and Operability Assessment (OA)
- Combines the probability of asset failure due to weather with fire consequence
- Determines Catastrophic Fire Probability (CFP)



Vegetation Risk

- Risk assessment based on a Transmission Vegetation Risk Model and FPI
- Combines the combination of relative probability of fire ignitions due to tree falls with the fire consequence
- Determines CFP-Veg



Catastrophic Fire Behavior

- Analysis of fire spread modeling from Technosylva
- Determines where intense and fast-spreading fires are possible



Additional Vegetation and Electric Asset Criteria

- Transmission Asset Health Specialists review locations of known high-priority trees and electric compliance A Tags



Public Safety Impact

- Grid stability and potential de-energization impacts are considered (e.g., non-consequential loss, generation loss)



Safety Shutoff Decision

- Decision is made on a transmission structure level that intersects within a weather footprint

Operational Assessment (OA)

The OA determines the probability that an asset (a tower or pole structure plus the equipment and conductors it supports) will fail during wind gusts of a given speed. While wind speed is the intensity measure used to determine this probability, the OA considers damage mechanisms, such as corrosion, fatigue, wear and decay, that could lower the capacity of an asset to resist extreme winds.

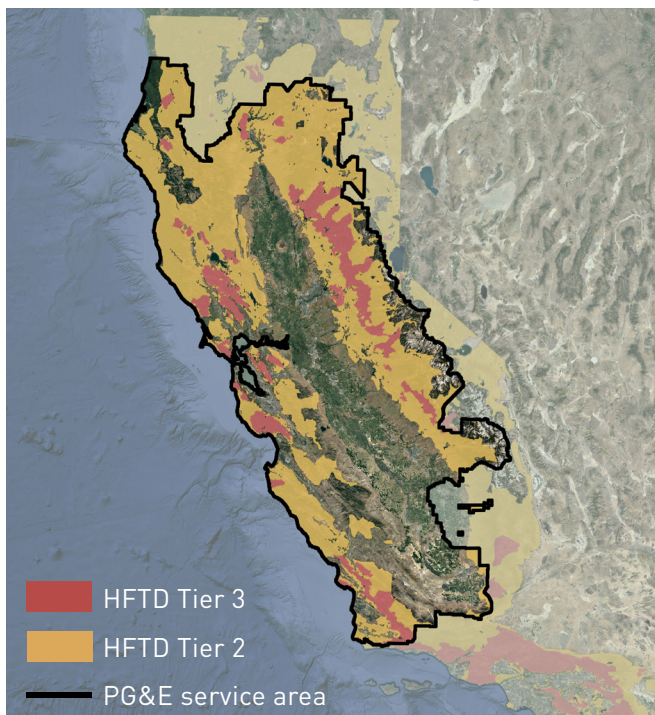
STEP 3 Determining the event scope and power outage area

Power is turned off if any of the criteria listed above are met over a certain geographic area.

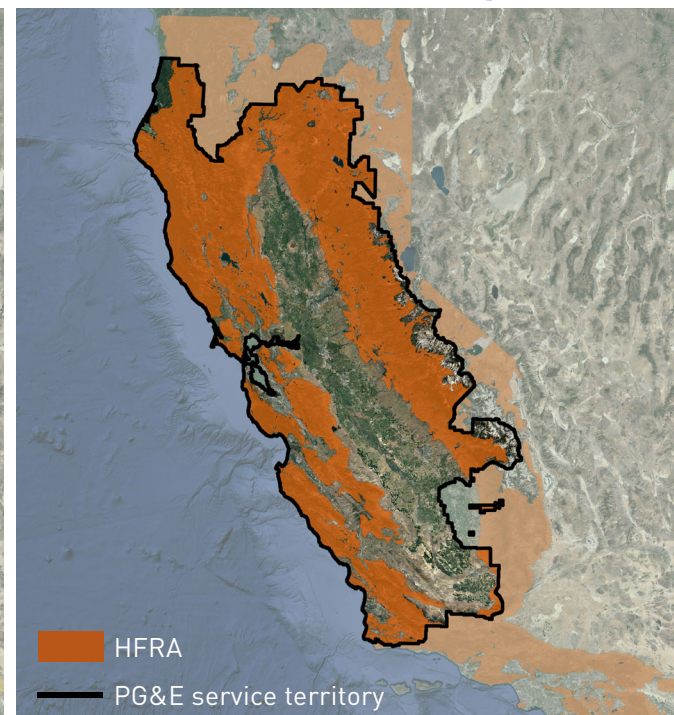
PG&E's high fire-risk area (HFRA) map

In 2021, we enhanced our fire risk mapping to more closely align with the risk of catastrophic fire from offshore winds. We re-examined the boundaries of the California Public Utilities Commission (CPUC) High Fire-Threat District (HFTD) map to be more reflective of current conditions in the service area.

CPUC HFTD map



PG&E HFRA map



HFTD background:

- Built to categorize areas of fire risk, not utility assets – not intended to be used for PSPS scoping
- Since its release in 2018, the map has been used as a general reference guide for where PSPS may be necessary

HFRA background:

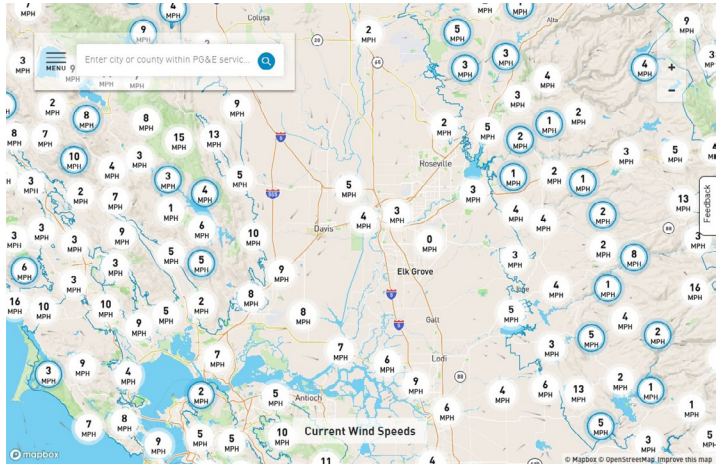
- Re-examination of HFTD to align catastrophic wildfire risk driven by offshore winds and to reflect the latest land use and fuel conditions
- Includes changes around the HFTD boundaries using both computer analysis and on-the-ground observations

Restoring power

As soon as it is safe to do so, we will begin inspecting our lines and equipment to restore power to all customers within 24 hours.

The first step in determining whether it is safe to begin patrols is confirming that weather conditions have passed. We use weather stations, high-definition cameras and real-time observations from our Safety and Infrastructure Protection Teams across our service territory to monitor weather conditions and fire risks.

We continue to build one of the largest utility-owned weather station networks in the world, which allows us to track temperature, wind speed and humidity in real time.



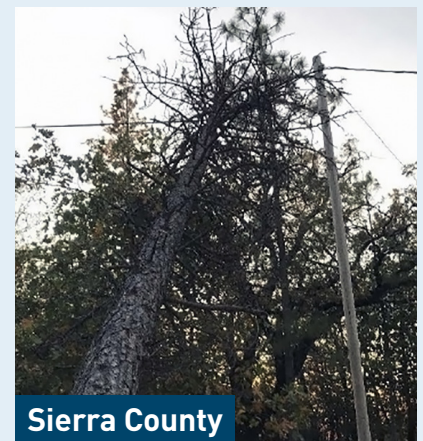
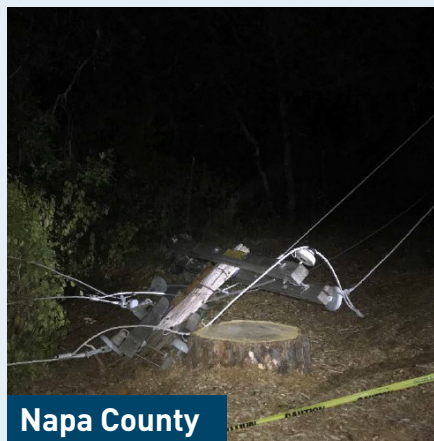
Weather station data is available through our weather map at:

pge.com/weather

Analyzing damage

Following a PSPS, we analyze damage to the system and hazards. Each hazard or instance of damage would have potentially been an ignition source.

In 2021, we experienced **442 separate damages or hazards** to our electric equipment in areas that were de-energized over the course of five PSPS. There were no PSPS outages in 2022.



Examples of weather damage in need of repair

EPSS criteria

EPSS are enabled throughout the year when conditions indicate an increased potential for wildfires. However, they are most likely to be enabled during hot and dry summer conditions, typically from May to November.

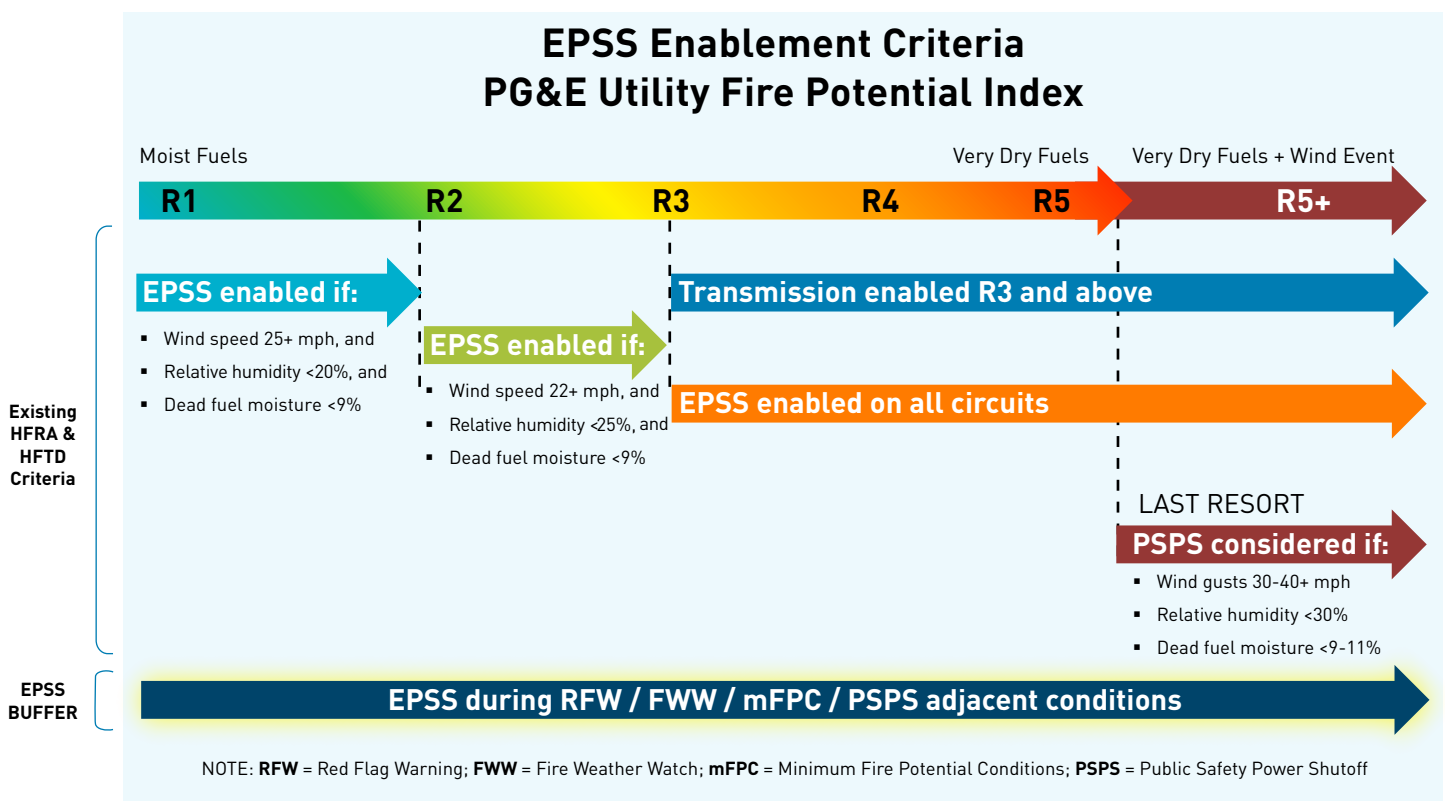
As wildfire conditions continue to evolve, our criteria for enabling the safety settings has also evolved to capture more potential for wildfire ignition reduction.

We do not take the decision to use safety settings lightly. Every day, we conduct an analysis to determine wildfire risk and whether safety settings are needed to protect customers. If conditions do not meet the need, EPSS are disabled to prevent unnecessary outages.

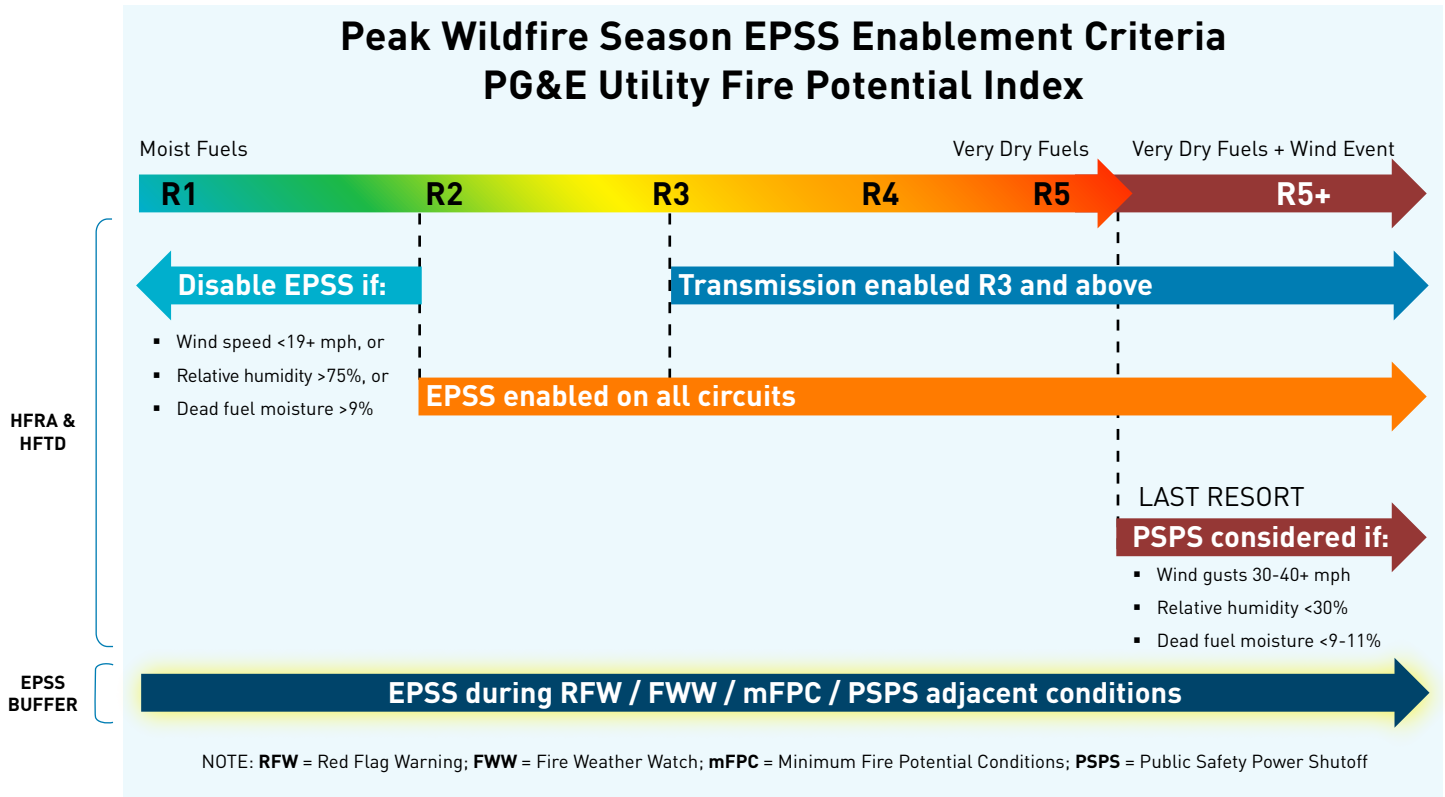
We use the FPI Model to guide EPSS. The FPI Model outputs the probability that a fire will become large or catastrophic. These factors combine to produce a one to five-plus scale of wildfire risk, or R1 to R5+.

During winter and spring season, our baseline criteria require EPSS enablement when:

- An FPI rating of R3 is forecasted for at least an hour at the distribution circuit level, or
- When a combination of high sustained wind speed, low relative humidity and low 10-hour dead fuel moisture are present at R2 or R1.



During peak wildfire season, EPSS is enabled on all circuits with an FPI rating of R2 and above.



Where are safety settings being enabled?

Launched as a pilot in 2021, these settings were first implemented on a select number of circuits in HFRAs. In 2021, an initial 45% of line miles in HFRAs were protected by the safety settings.

Having seen a significant reduction in ignition rates in 2021, we expanded the program to 100% of line miles in and around HFRAs in 2022. In total, approximately 44,000 line miles and 1.8 million customers are now EPSS-protected.

Our Address Lookup Tool allows customers to see when enhanced safety settings are turned on in their area.

pge.com/addresslookup

Restoring power

If an outage on a safety setting-enabled line occurs, crews must patrol the de-energized area – and perform any necessary repairs – prior to restoring power.

The length of the outage and the portion of customers restored will vary depending on the time and location that it occurs, as well as the severity of any damage. For example, in rural and difficult terrain, crews may not be able to safely patrol the system at night. Additionally, patrols with limited access will take longer.

If customers are served by an enabled circuit, they may see crews in their community patrolling the circuit and performing any necessary repairs prior to restoring power. In some cases, customers may see helicopters or drones performing aerial patrols. If customers have powerlines on their property, we may need access to restore power as quickly and safely as possible.

5 Notifying Customers and Communities

PSPS notifications

We aim to send our customers PSPS notifications two days ahead, one day ahead, just before turning off power, once power is turned off and daily until power is restored.

Whenever possible, we also issue priority PSPS notifications to public safety partners, critical facilities and infrastructure, as well as transmission-level customers. These alerts are sent 48-72 hours in advance of a potential PSPS.

PSPS direct-to-customer outreach

We will attempt to reach customers through automated calls, texts and/or emails both day and night as needed.

- Priority** ✓ **72-48 hours before power is turned off**
After our Emergency Operations Center is activated, direct contact is made to California's Office of Emergency Services (Cal OES), county OES and tribal contacts. We also provide an initial notification to public safety partner contacts.
- Watch** ✓ **48-24 hours before power is turned off**
We send a notification in advance of the planned de-energization.
- Warning** ✓ **4-1 hours before power is turned off**
We send a notification when the planned de-energization is approaching.
- Cancellation/Delay** ✓ **If shutoff is delayed/cancelled**
We send a notification if weather conditions change and the shutoff time is significantly delayed, or if power will no longer be shut off.
- Shutoff** ✓ **At power shutoff**
Customers are notified power is about to be or has been turned off for public safety.
- Post-Weather Event** ✓ **Following weather "all-clear"**
After weather has passed, we send notifications to customers daily until power is restored. We also notify agencies that system inspections are underway.
- Update** ✓ **If there's an update**
We send a notification if the Estimated Time of Restoral changes.
- Power Restoration** ✓ **Following power restoration**
We send a notification once power has been restored.

We will also use our website (pge.com/pspsupdates), social media, CBO partnerships and local news to keep customers informed and updated.

EPSS notifications

EPSS-enabled lines automatically turn off power if a wildfire hazard is detected. Because power is turned off automatically, we're unable to provide advance notification.

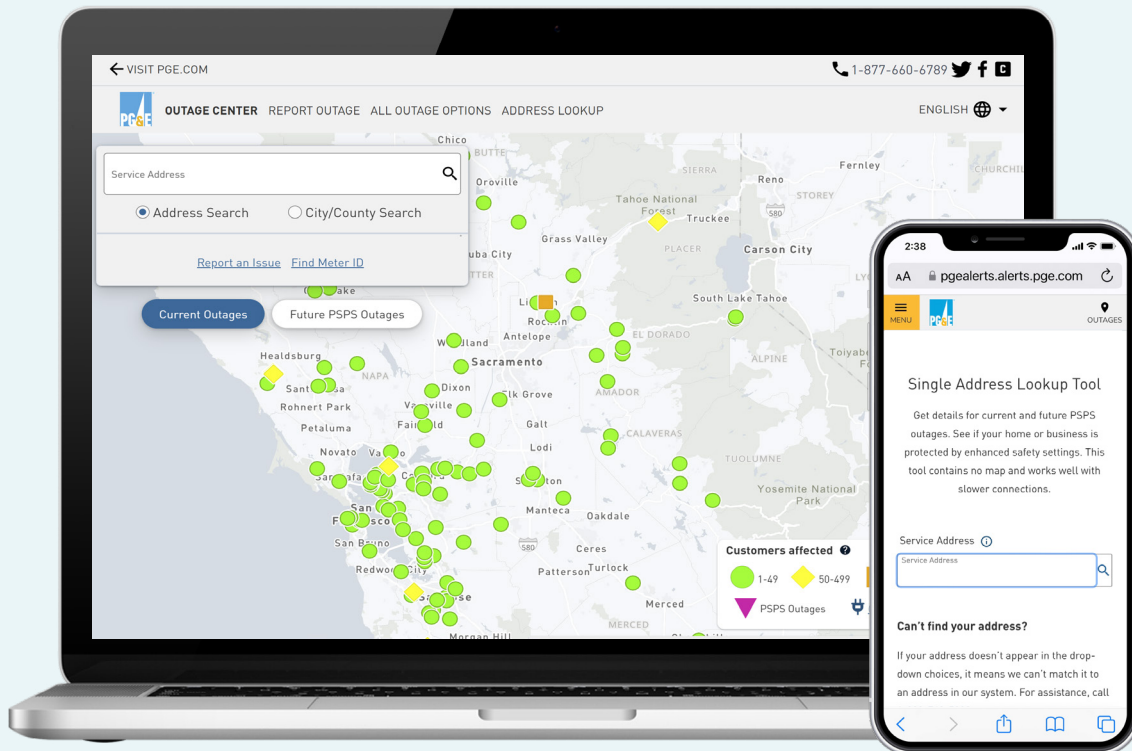
If power outages on EPSS-enabled lines occur, customers will receive notifications. These notifications will be sent via text, phone or email, depending on the customer's preferred contact method.

Customers can review and update their contact information at pge.com/myalerts.

Outage map

Find power outage updates at:

pge.com/outages



Address Lookup Tool

Customers can see when enhanced safety settings are turned on in their area at:

pge.com/addresslookup

6 Supporting Customers and Communities

Customer support programs

We know losing power can be disruptive. That is why we have programs in place to help customers prepare for a safety outage and access resources during one.

Portable Battery Program

Portable batteries are available for eligible Medical Baseline and Self-Identified Vulnerable customers who experienced at least one PSPS in 2021 or five or more EPSS outages in 2022.

Generator and Battery Rebate Program

Rebates are available for customers who either live in a HFTD or are served by powerlines protected by EPSS.

Backup Power Transfer Meter Program

Customers who live in a HFTD or who are served by an EPSS-protected circuit can receive a free Backup Power Transfer Meter.

Safety Action Center

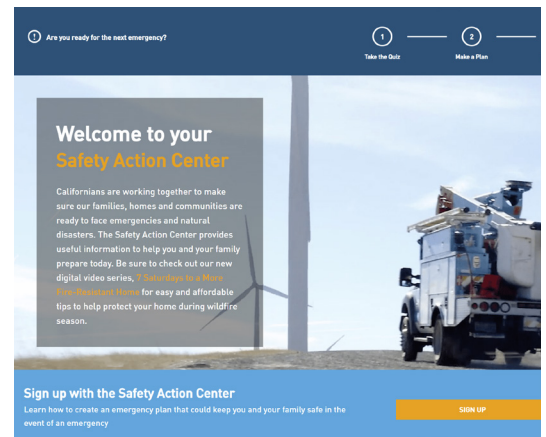
Information and tools are available online to help customers stay safe before, during and after an emergency.

211 partnership

We partner with 211 to provide local resources and support before, during and after times of critical need, such as a PSPS.

Food Bank/Meals on Wheels support

Meal replacement is available to communities impacted by PSPS. Food banks provide meals up until three days after PSPS restoration. We also partner with Meals on Wheels to deliver meals to affected home-bound seniors.



Additional resources

To view informational videos, visit our YouTube Channel:

youtube.com/user/pgevideo

To view webinar recordings, presentation materials and upcoming events, visit:

pge.com/firesafetywebinars

To find more information on outage support, visit:

pge.com/pspsupport

and

pge.com/afn

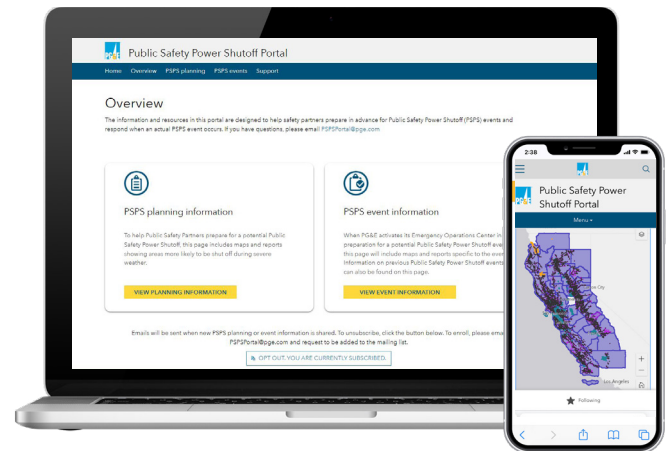
PSPS Portal and Outage Portal

PSPS Portal

The PSPS Portal is a secure site designed for cities, counties, tribes, critical service providers and some of our CBO partners to share planning and PSPS-specific maps and reports.

Information on the PSPS Portal includes:

- Maps of areas more likely to be impacted, to assist with planning efforts
- PSPS-specific information, such as estimated time of shutoff and restoral and the total number of customers impacted
- Outage area maps
- Confidential lists with the critical facilities and Medical Baseline customers impacted, for eligible users that have accepted the online agreement



Outage Portal

Public safety partners and some CBOs have access to our secure online Outage Portal. This portal provides data focused on EPSS-enabled circuits and power outages occurring on powerlines protected by the safety settings.

The Outage Portal provides information on:

- The location of currently EPSS-enabled circuits
- Details of active power outages on EPSS-enabled lines across the service territory

Users have the option to view the Outage Portal on mobile devices and download outage data in real time.

To find additional information about our wildfire safety efforts, visit pge.com/wildfiresafety.

Customers can also call us at **1-866-743-6589** or email wildfiresafety@pge.com.