

PACIFIC GAS AND ELECTRIC COMPANY PUBLIC SAFETY POWER SHUTOFF POLICIES AND PROCEDURES

SEPTEMBER 2018



**Together, Building
a Better California**

Following the 2017 wildfires, PG&E's Community Wildfire Safety Program implements additional precautionary measures intended to further reduce future wildfire risk.

PACIFIC GAS AND ELECTRIC COMPANY

PUBLIC SAFETY POWER SHUTOFF

POLICIES AND PROCEDURES

The following is a description of Pacific Gas and Electric Company's (PG&E) policies and procedures related to proactively turning off power for safety – and later restoring power – when necessary due to extreme weather and wildfire danger. This is often called proactive de-energization and restoration in the industry; PG&E is calling this **Public Safety Power Shutoff**.

Extreme weather events driven by climate change are causing unprecedented and unanticipated wildfires. Years of drought, extreme heat and 129 million dead trees have created a “new normal” for our state, and we must continue to adapt to meet these challenges. PG&E's Community Wildfire Safety Program implements additional precautionary measures intended to reduce wildfire threats. It includes:



WILDFIRE PREVENTION AND EMERGENCY RESPONSE

- Monitoring wildfire risks in real time from our new Wildfire Safety Operations Center
- Expanding our network of PG&E weather stations to enhance weather forecasting and modeling



NEW AND ENHANCED SAFETY MEASURES

- Doing enhanced vegetation management in high fire-threat areas
- Disabling automatic reclosing of circuit breakers and reclosers
- Refining and executing protocols to temporarily turn off electric power for safety when extreme fire danger conditions are occurring



LONGER-TERM ELECTRIC SYSTEM HARDENING

- Investing in stronger, coated power lines
- Replacing some wood poles with non-wood poles in the coming years
- Working with communities to develop resilience zones

Public Safety Power Shutoff is one component of the Community Wildfire Safety Program. PG&E has created a set of procedures for:

- Monitoring **fire danger conditions**
- Determining what **combination of conditions** necessitates turning off lines for safety
- Identifying **high fire-risk locations**
- **Notifying customers**, municipalities, agencies and critical facilities
- **Restoring power as quickly as possible** once it is safe to do so

1 | MONITORING FOR EXTREME FIRE DANGER CONDITIONS

PG&E established a Wildfire Safety Operations Center to monitor potential fire threats across our service area in real time and coordinate prevention and response efforts.

■ 24-HOUR STAFFING

The Wildfire Safety Operations Center is staffed 24 hours a day, primarily during wildfire season, and operational other times of the year, depending on conditions.

■ HIGHLY-QUALIFIED TEAM

The onsite team is composed of highly-qualified individuals knowledgeable in electric operations, fire safety, meteorology and other areas.



■ REAL-TIME MONITORING

The center provides real-time monitoring of conditions from on-the-ground field teams, PG&E weather stations and live video feeds, as well as databases, emergency alert systems and social media from agencies such as CAL FIRE, National Weather Service, National Oceanic and Atmospheric Association (NOAA), Caltrans, the Bay Area Regional Air Quality Control Board and local public safety authorities.



To further advance our weather forecasting capabilities, PG&E is expanding its network of weather stations to monitor and forecast weather conditions and better predict where extreme wildfire danger could occur so we can respond quickly and appropriately to keep our customers safe.

- Data collected by these stations is streamed in real time and is available to state and local agencies and the public through online sources such as the National Weather Service and MesoWest.
- With these new weather stations, PG&E is able to capture additional data related to temperature, wind speeds and humidity levels to provide improved awareness of current fire danger conditions.
- PG&E's meteorologists feed information to the Wildfire Safety Operations Center team to review data and determine any needed action to help reduce wildfire risks, such as a Public Safety Power Shutoff.

2 | CRITERIA FOR DETERMINING PUBLIC SAFETY POWER SHUTOFF

PG&E's Wildfire Safety Operations Center team will monitor conditions across our system and evaluate whether to temporarily turn off electric power lines, in the interest of public safety.

A Public Safety Power Shutoff will only be done as a last resort during the most extreme fire danger conditions. Importantly, no single factor will drive a Public Safety Power Shutoff. PG&E will take a combination of many criteria into consideration, including:

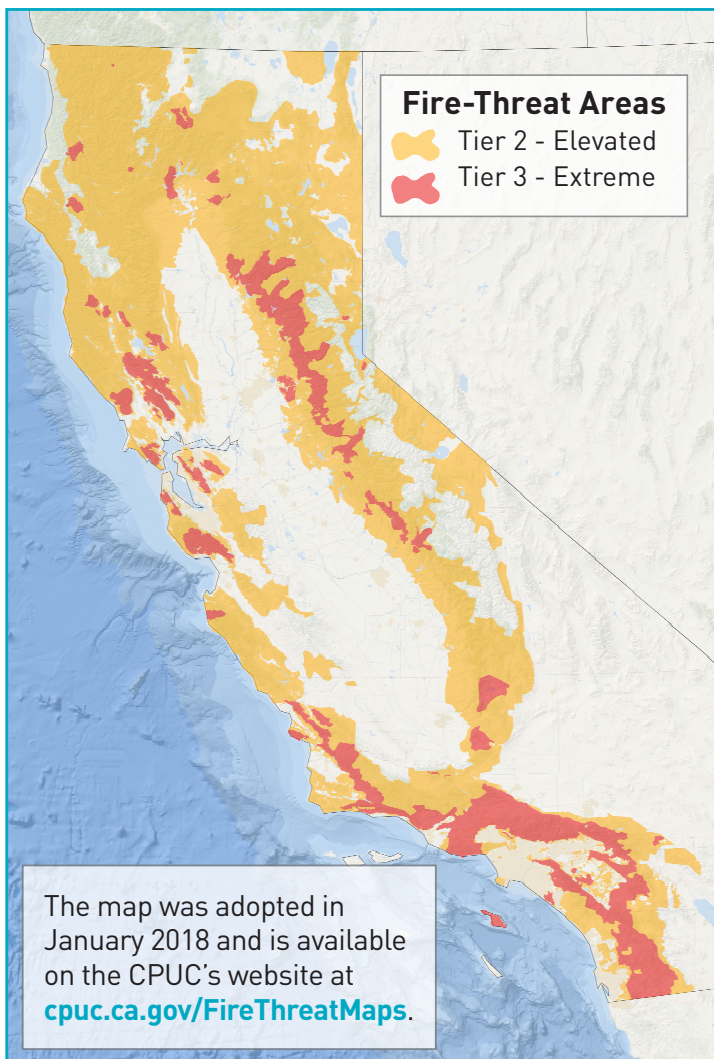
- **"Extreme" fire danger threat level**, as classified by the National Fire Danger Rating System
- **A Red Flag Warning declared** by the National Weather Service
- **Low humidity levels**, generally 20 percent and below
- **Sustained winds** above approx. 25 mph and wind gusts in excess of approx. 45 mph
- **Site-specific conditions** such as temperature, terrain and local climate
- **Critically dry vegetation** that could serve as fuel for a wildfire
- **On-the-ground, real-time observations** from PG&E field crews

We anticipate that a Public Safety Power Shutoff could occur 1-2 times a year in our service area, although it is impossible to predict future weather conditions in the "new normal" of climate-driven extreme weather events.



3 | IDENTIFICATION OF HIGH FIRE-RISK LOCATIONS

To determine which communities have a high fire-risk, PG&E is using the **California Public Utility Commission's (CPUC) High Fire-Threat District Map**, developed in coordination with CAL FIRE and based on input from electric utilities, communications infrastructure providers and local public safety agencies.



Source: California Public Utilities Commission (CPUC)

- The map identifies areas that are at extreme risk (Tier 3) and elevated risk (Tier 2) of wildfire.
- The most likely electric lines to be considered for shutting off for safety will be those that run through areas designated Tier 3.
- If we need to turn off an electric line during extreme fire danger conditions, homes and businesses served by that line would be affected.
- The specific area and number of affected customers will depend on conditions and which circuits PG&E needs to turn off for public safety.



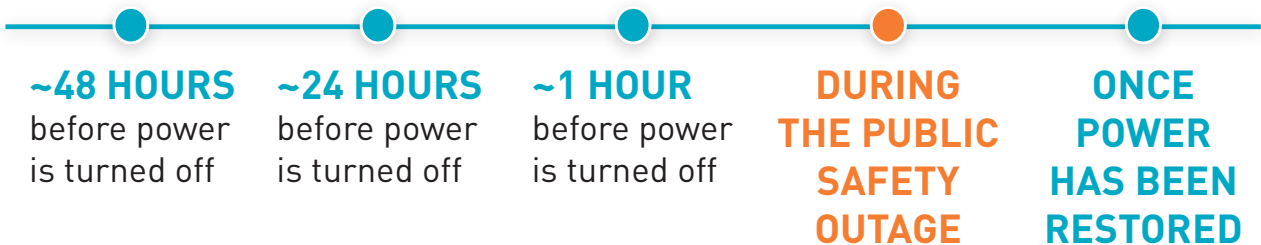
Customers can visit pge.com/wildfiresafety to enter their address and find out if their home or business is served by an electric line that may be turned off during high wildfire threats.

4 | NOTIFICATION OF PUBLIC SAFETY POWER SHUTOFF

In the event we need to temporarily turn off power for safety, we would advise public safety authorities, first responders and local municipalities.

Extreme weather threats can change quickly. When and where possible, we would provide customers with notice between one hour to 48 hours in advance of turning off the power. We will also provide updates until power is restored.

TIMING OF NOTIFICATIONS (when possible)



HOW WE'LL NOTIFY CUSTOMERS

We will attempt to reach customers through **calls, texts and emails** using the contact information we have on file. We will also use **social media** channels and keep **local news** and **radio outlets** informed and updated.

1 NOTICE TO CUSTOMERS

Our goal, dependent on weather and other factors, is to send customer alerts at 48 hours, again at 24 hours and again just prior to shutting off power, when and where possible.

- We are asking customers who live in or near high fire-threat areas to go online to pge.com/mywildfirealerts to be sure we have their updated contact information. We will use this information to reach out to them by phone, text and email in advance of a Public Safety Power Shutoff, if conditions allow, and throughout the event until power is restored.
- In addition to notifying customers directly, we will provide outage updates and information through social media, local news, radio and the pge.com website.
- Public Safety Power Shutoff events may be cancelled if weather conditions improve. In that event, we would notify customers that weather conditions have improved in their area, and we are not planning to turn off their electricity for safety.
- We are also encouraging customers to visit pge.com/wildfiresafety for tips to prepare an emergency preparedness plan for their home or business.
- Note, there is no advance notice when we need to turn off power at the request of CAL FIRE or a local agency due to an active wildfire or other emergency response situation.

2 NOTICE TO STATE, COUNTIES AND CITIES

If possible based on conditions, we would provide notice to cities, counties and emergency response partners in advance of notifying customers about a potential Public Safety Power Shutoff.

- We would reach out via phone to our government and agency contacts with notice that we are monitoring conditions and that extreme fire danger conditions may cause power outages or require us to shut off power for safety in the coming days.
- For cities, counties and local agencies, we will use a platform which can send the same message to a list of contacts through multiple channels including phone, text and email.
- We would provide city, county and agency officials with the content of our customer alerts, so they can be shared on channels such as Nixle, Nextdoor and Reverse 911.

3 NOTICE TO CRITICAL CUSTOMERS

PG&E has identified and is doing direct outreach to customers who provide critical services, such as hospitals, fire stations, water agencies and telecommunications providers.

- We want to be sure they know we may need to turn off power for safety during extreme weather conditions so they can take steps to prepare, such as securing backup generation.
- We are also asking these customers to confirm that we have their correct contact information so we can provide early warning notification, when and where possible depending on conditions.

4 NOTICE TO MEDICAL BASELINE CUSTOMERS

We are conducting additional outreach to customers who are enrolled in PG&E's Medical Baseline program.

- We are asking customers to please evaluate the safety of their situation and consider if there is a friend or family member they can stay with during an outage.
- If the customer has a backup generator, we encourage them to do a safety check and make sure they have enough fuel to last for a few days. More generator safety tips can be found at pge.com/generatorsafety.
- Customers should keep emergency numbers on hand, and are encouraged to check with local authorities regarding resources that may be available.
- We advise all customers to call 911 immediately if a family member experiences a medical emergency.

5 | RESTORATION OF POWER

After the extreme weather has passed and it is safe to do so, our crews will work to inspect the lines and safely restore power to customers. If the extreme weather occurs overnight, inspections would take place during daylight hours.



We would make every effort to restore power within 24 hours. However, depending on conditions or if any repairs are needed, outages (weather event plus restoration time) could last between 2 to 5 days.

For planning purposes, we suggest customers served by lines that run through high fire-threat areas prepare for multiple-day outages.



MORE INFORMATION | For more information about PG&E's Community Wildfire Safety Program, please visit pge.com/wildfiresafety. Customers can update their contact information for wildfire safety alerts at pge.com/mywildfirealerts.

APPENDIX | PUBLIC SAFETY POWER SHUTOFF SUMMARY

We are reaching out to our customers who are served by electric lines that run through high fire-threat areas to let them know that, if extreme fire danger conditions occur, it may be necessary for us to temporarily turn off power to their neighborhood or community for safety.

1

MONITOR

PG&E continually monitors for extreme weather threats and high fire danger.

We will consider several factors before shutting off power.



Weather Forecast

Periods of increased risk are identified by wind speed, humidity and temperature.



Observations

On-the-ground, real-time observations are made.



Fuel Conditions

Conditions such as dry vegetation are factored in.



Notice

Inform CAL FIRE, Cal OES* and local agencies of conditions and potential Public Safety Power Shutoff.

**California Governor's Office of Emergency Services*

2

INFORM

If we need to turn off power, we will attempt to contact customers in advance to give time to prepare.

We will use a multi-faceted effort to inform communities.



Automated Outreach

PG&E will provide automated outreach through calls, texts and emails.



Direct Outreach

We will take additional steps to reach customers who are enrolled in our Medical Baseline program, as needed.



Coordination

Coordination will take place with first responders and local officials.

3

SHUT OFF / RESTORE

We know how much people rely on electric service and would only temporarily turn off power for safety as a last resort.

We will take steps to keep you informed and get power restored as quickly as possible.



Inspections

PG&E crews will be in the field conducting safety inspections and determining when power can be safely restored.



Updates

Customers will receive updates until power is restored.



Safely Restore Power

Power will be restored as soon as extreme weather conditions have passed and safety inspections are complete.

PG&E has a plan to deal with the growing threat of extreme weather and wildfires. All customers living in high fire-threat areas should also have a personal or family emergency plan. Visit pge.com/wildfiresafety to learn more about how to prepare your home or business.

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