

Community Wildfire Safety Program

SAN LUIS OBISPO COUNTY FIRE CHIEFS ASSOCIATION

August 2020



Community Wildfire Safety Program



REDUCE WILDFIRE IGNITION POTENTIAL

- Asset inspection and repair
- Enhanced vegetation management
- System automation
- System hardening
- Public Safety Power Shutoffs

IMPROVE SITUATIONAL AWARENESS

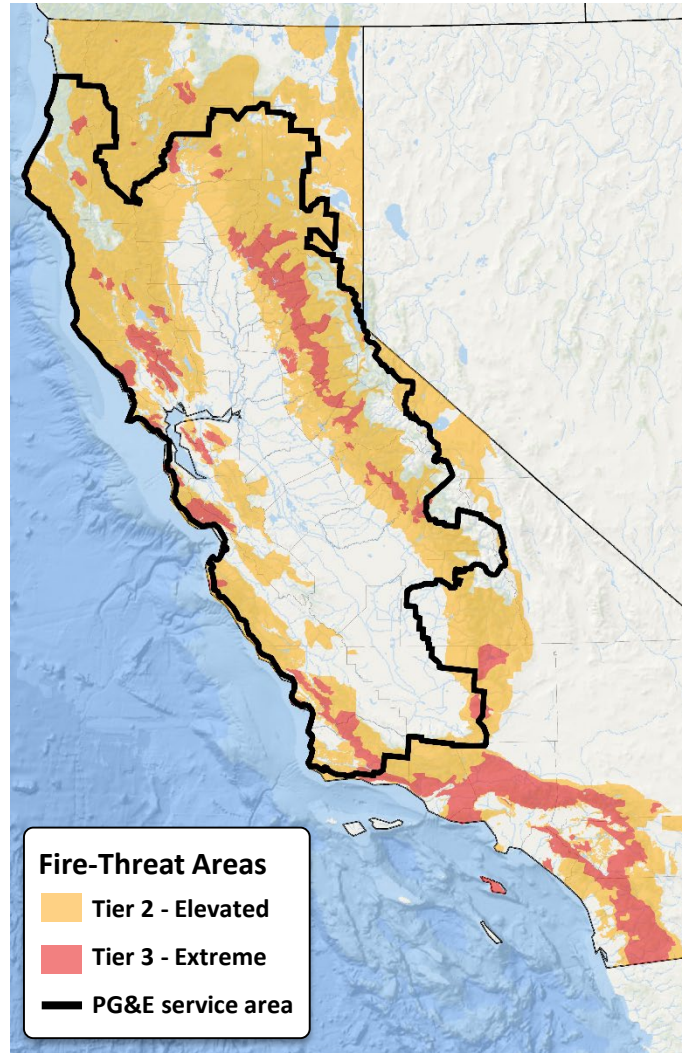
- Weather stations
- High-definition cameras
- Wildfire Safety Operations Center (WSOC)
- Meteorology

REDUCE IMPACT OF PSPS EVENTS

- Reduce number of affected customers
- Reduce length
- Improve coordination with and support communities and customers



Wildfire Risks Across PG&E's Service Area



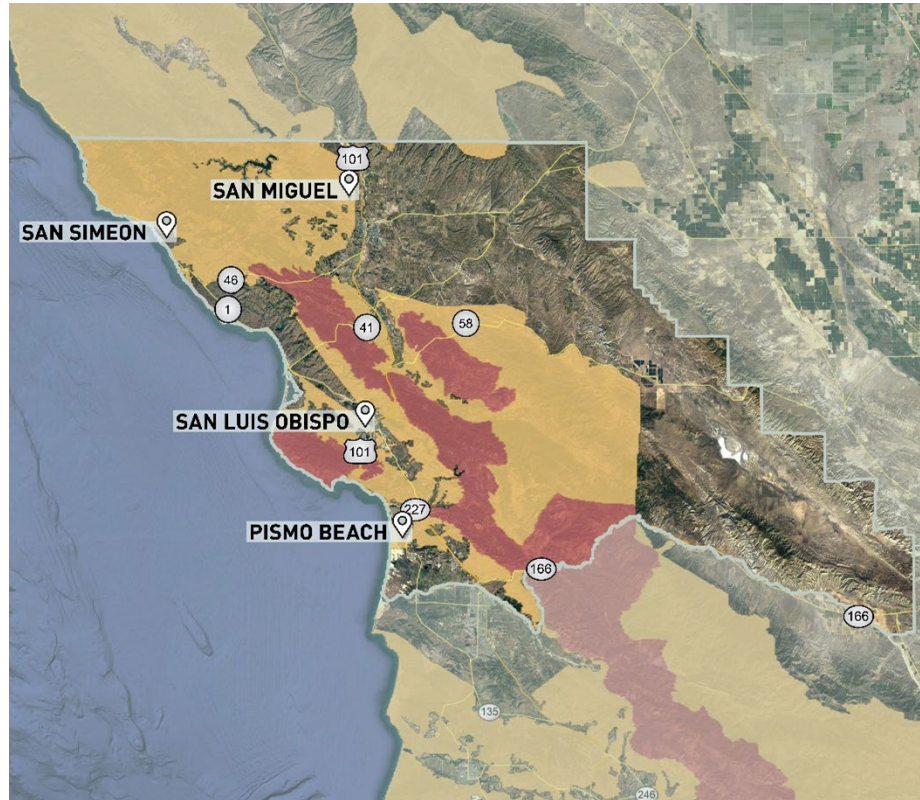
	PG&E SYSTEM-WIDE
Electric customers served	5.5M
Electric customers in HFTD	505,600
Overhead distribution line miles	81,000
Overhead distribution line miles in HFTD	25,500
Overhead transmission miles	18,200
Overhead transmission miles in HFTD	5,500

Numbers are approximate

The map can be accessed at: cpuc.ca.gov/FireThreatMaps

San Luis Obispo County Overview

CPUC High Fire-Threat District Map San Luis Obispo County



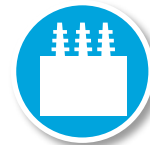
TIER 2
Elevated
 TIER 3
Extreme



3,170 total overhead distribution miles
1,010 in Tier 2 | 288 in Tier 3 | **41%** in HFTD



749 total overhead transmission miles
314 in Tier 2 | 119 in Tier 3 | **58%** in HFTD



15 total substations



139,300 total customers served
25,500 (**18%**) Customers in HFTD



Wildfire Safety Progress – San Luis Obispo County

WILDFIRE SAFETY AND CUSTOMER SUPPORT PROGRAM EFFORTS



**2019
COMPLETE**



**2020
TARGET**

Weather Stations

Enhancing weather forecasting and modeling

35
STATIONS

8+
IN PROGRESS*

High-Definition Cameras

Improving real-time monitoring of high-risk areas and conditions

1
CAMERA

6+
IN PROGRESS*

Sectionalizing Devices

Separating the grid into small sections for operational flexibility

18
DEVICES

30
DEVICES

Enhanced Vegetation Management

Inspecting, pruning and removing vegetation

91
LINE MILES

58
LINE MILES

*Locations identified on a monthly basis



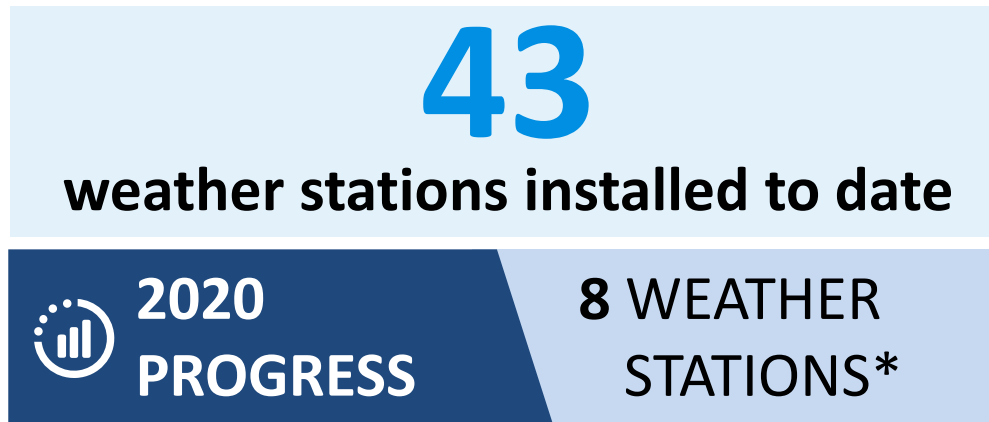
Advanced Weather Station Network



To sign up for daily email notifications regarding PSPS potential, visit cloud.em.pge.com/PSPS-7day-Signup.

We're using better weather monitoring technology and installing new weather stations to more precisely forecast weather that could lead to PSPS events.

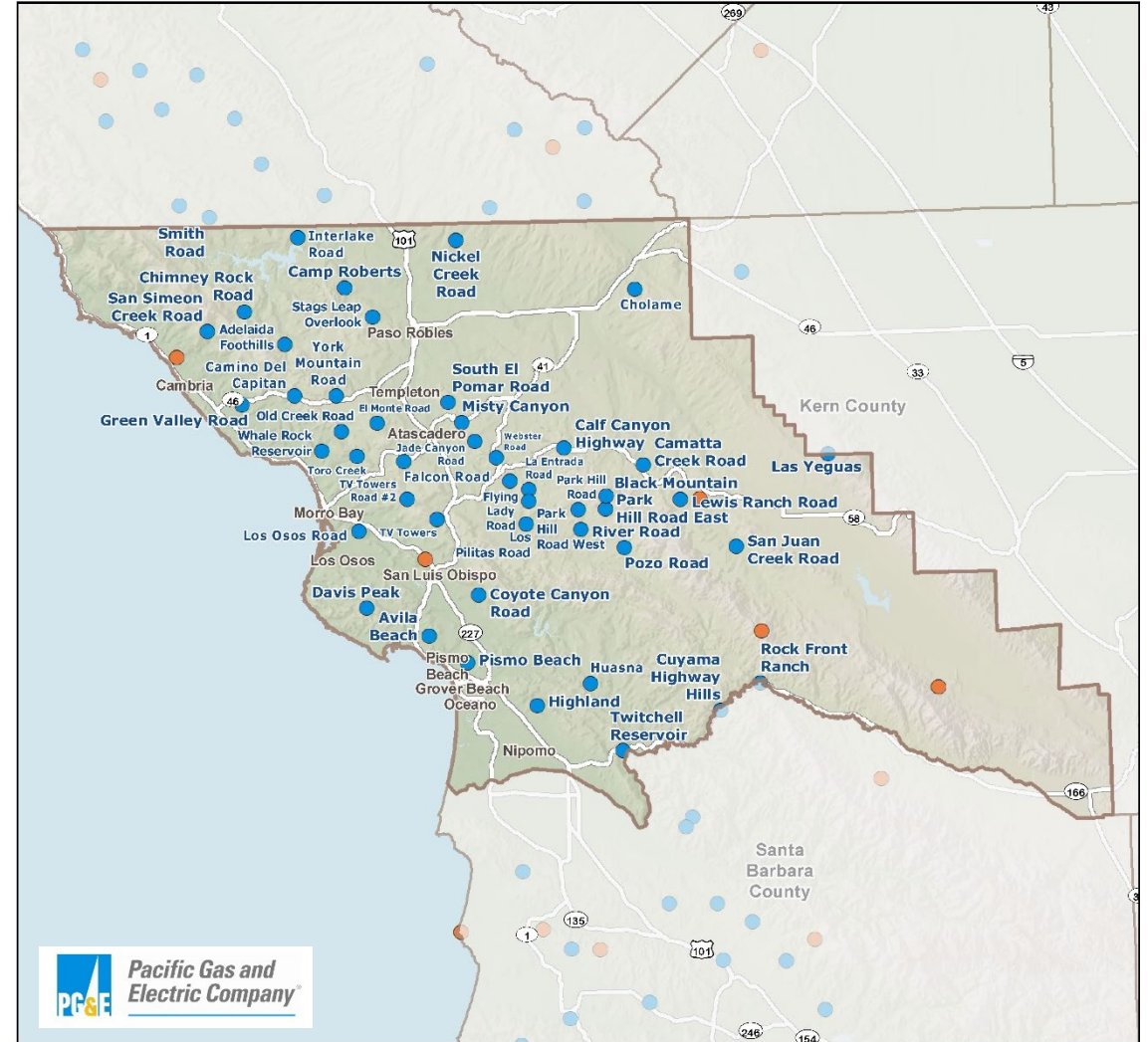
We're targeting about **one station every 20 miles of electric lines** in high fire-threat areas by 2021.



*Installed

MAP LEGEND:

- PG&E weather station installed
- Remote Automated Weather Stations (RAWS) within PG&E's service area



Data is publicly available at pge.com/weather and mesowest.utah.edu

All data is preliminary and based on early 2020 work planning. Data as of July 2020.

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



Monitoring For Wildfires With High-Definition Cameras

We're supporting the installation of new high-definition cameras in high fire-threat areas, which allows PG&E and first responders to monitor wildfires in real time.

This will increase our coverage to more than 90% of our service area by 2022.

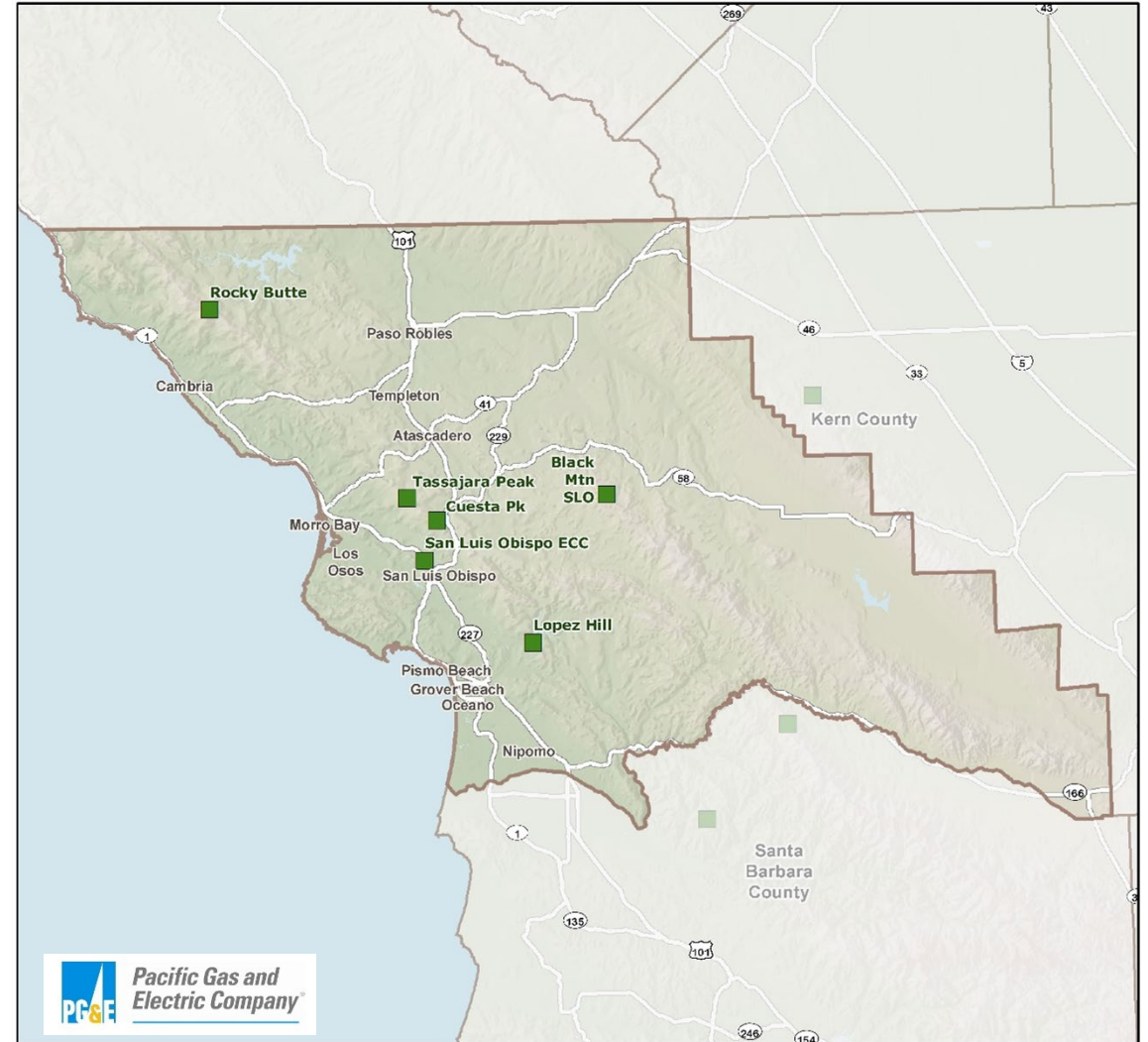
7
cameras installed to date

2020 PROGRESS 6 CAMERAS*

**Installed*

MAP LEGEND:

- PG&E high-definition camera installed
- Non-PG&E camera that looks into PG&E's service area



Images are publicly available at pge.com/weather and alertwildfire.org

All data is preliminary and based on early 2020 work planning. Data as of July 2020.

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

System Hardening And Resiliency

As part of our efforts to prevent wildfires, we are **strengthening the electric system to further reduce wildfire risk and better withstand severe weather.**

These improvements will occur **over several years across 7,100 miles of distribution lines in the highest risk fire-threat areas**, and include:

- Installing stronger and more resilient poles
- Replacing bare conductor
- Installing more poles than required
- No longer using trees to support infrastructure
- Adding down guys and anchors
- Placing lines underground



Sectionalizing The Electric Grid – San Luis Obispo County

We're installing new sectionalizing devices to reduce the number of customers affected during a PSPS event.

2020 TARGET 30 DEVICES

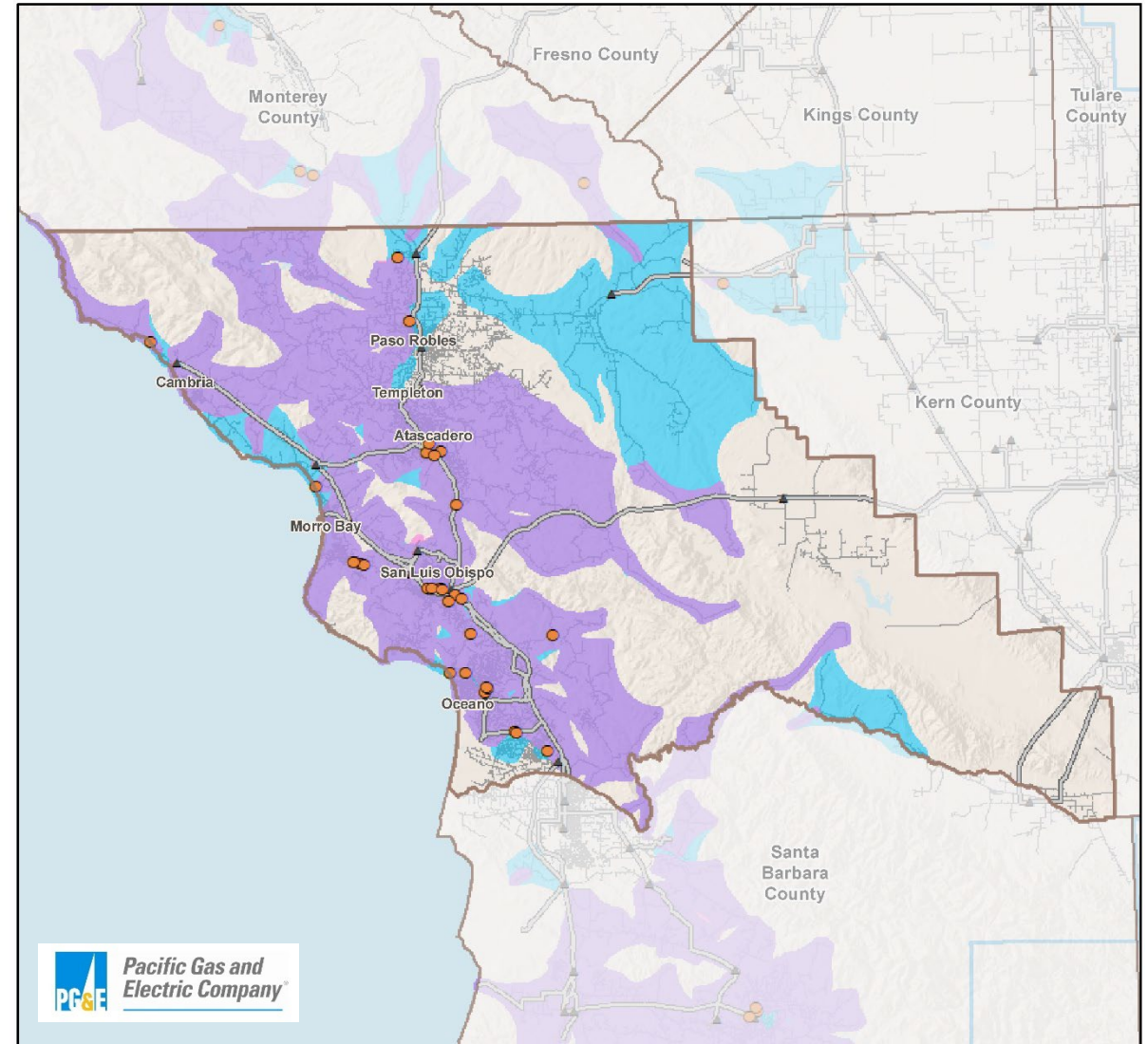
2020 PROGRESS 29 DEVICES*

**Installed*

MAP LEGEND:

- Distribution sectionalizing device planned
- Area potentially removed from scope due to planned sectionalizing (distribution level event only)
- New area now in scope
- No change from 2019
- ▲ PG&E Substation

Note: Map reflects projects in planning and/or underway and is subject to change



Enhanced Vegetation Management Work In Your Community

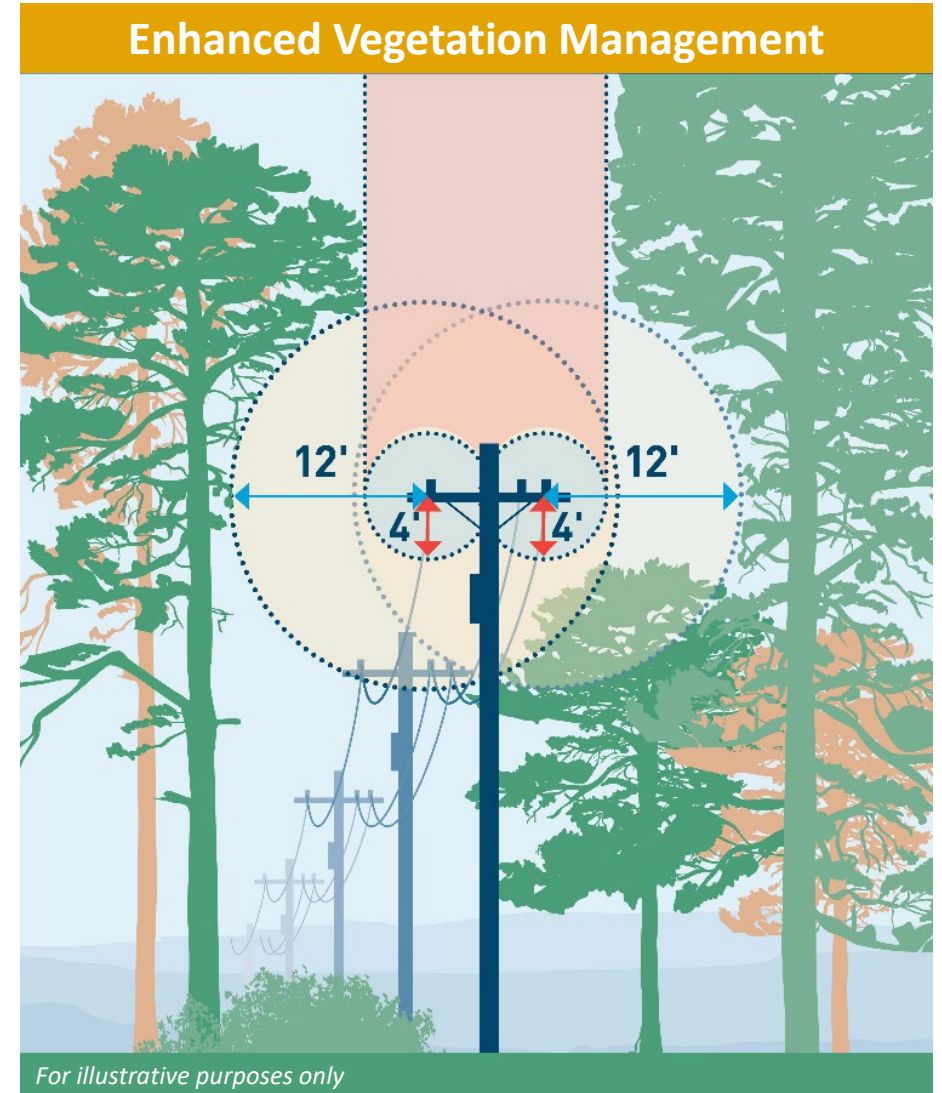
We are exceeding state vegetation and fire safety standards by addressing vegetation that poses a higher potential for wildfire risk to maximize the safety of our customers and communities.

 **2020 TARGET** **91 LINE MILES**

 **2020 PROGRESS** **58 LINE MILES**

Our enhanced vegetation management work includes:

- **Exceeding state standards for minimum clearances** around power lines, including **trimming overhanging limbs and branches above power lines.**
- **Conducting additional inspections**, beyond routine patrols, **to remove hazardous vegetation** such as dead, diseased, dying or defective **trees that could harm power lines or equipment.**



Public Safety Power Shutoff (PSPS)

Overview



The purpose of a PSPS is to reduce the risk of major wildfires during severe weather.



High winds can cause tree branches or debris to contact energized electric lines, which could damage our equipment and cause a major wildfire, making a **PSPS event an important tool for keeping our customers and communities safe.**



We **carefully review a combination of criteria** when determining if power should be turned off for safety.



We are working to improve our PSPS program by making events, **smaller in size, shorter in length and smarter for our customers**, without compromising safety.

How Are We Improving For This Year?



SMALLER IN SIZE

Reduce the number of customers affected by a PSPS event by one-third compared to last year



SHORTER IN LENGTH

Restore customers twice as fast after severe weather has passed



SMARTER FOR CUSTOMERS

Provide **better information** and additional resources

Provide **more assistance** before, during and after a PSPS event



**SMALLER
IN SIZE**

GOAL:

Reduce the number of customers affected by a PSPS event by one-third compared to last year

WHAT WE'RE DOING:

- Installing devices that limit the size of outages
- Installing microgrids
- Placing lines underground in targeted locations
- Using better weather monitoring technology and installing new weather stations



SHORTER IN LENGTH

GOAL:

Restore customers twice as fast after severe weather has passed

WHAT WE'RE DOING:

- **Deploying more PG&E and contractor crews** for inspection and restoration efforts
- **Expanding helicopter fleet from 35 to 65** and using **two new airplanes** for aerial line inspections
- Utilizing **infrared equipment** to inspect at night



SMARTER FOR CUSTOMERS

GOALS:

Provide better information and additional resources

- AND -

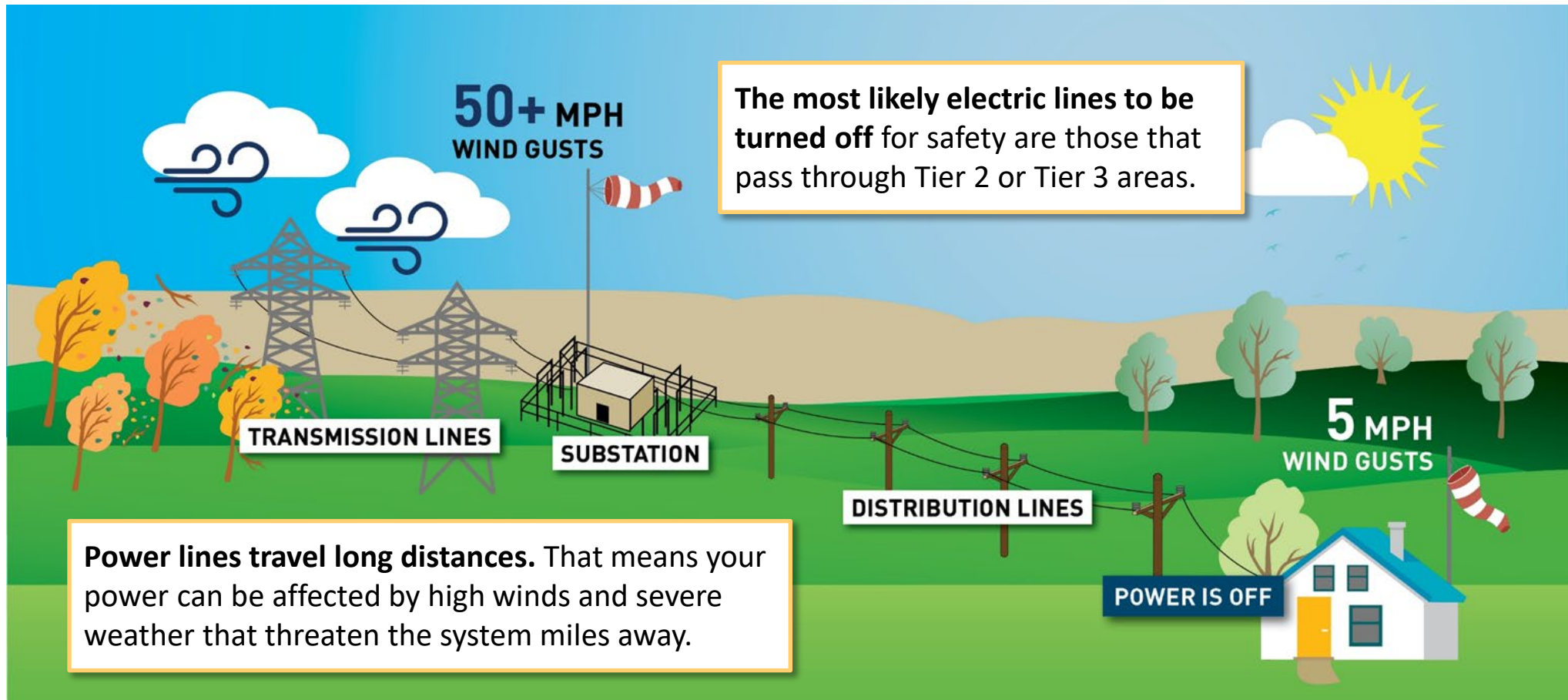
Provide more assistance before, during and after a PSPS event

WHAT WE'RE DOING:

- Improving PG&E's **website bandwidth**
 - Improving **customers notifications**
 - Opening **Community Resource Centers**
 - **Working more collaboratively** with local agencies and critical service providers
-
- Working with the **California Foundation for Independent Living Centers (CFILC)** and **community-based organizations (CBOs)**
 - Making it **easier for eligible customers to join and stay on the Medical Baseline Program**
 - Providing **emergency information in 13 languages**

What Is A Public Safety Power Shutoff?

High winds can cause tree branches or debris to contact energized electric lines, which could damage our equipment and cause a major wildfire. We may need to turn off power during severe weather to prevent such fires. This is called a Public Safety Power Shutoff (PSPS).



What Weather Could Lead To A PSPS?

As each weather situation is unique, we carefully review a combination of factors when deciding if power must be turned off. Some factors include:



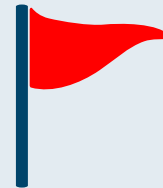
LOW HUMIDITY LEVELS
generally 20% and below



FORECASTED WINDS
above 25 mph and gusts
above 45 mph



CONDITION OF DRY MATERIAL
on the ground and live vegetation
(e.g., moisture content)



A RED FLAG WARNING
declared by the National
Weather Service



ON-THE-GROUND, REAL TIME OBSERVATIONS



Advance PSPS Notifications For Customers

We provide advance notice prior to turning off power and updates until power is restored. This year, notifications will include more details about **when it's anticipated that the power will be shut off and restored.**

Timing of Notifications (when possible)



 PG&E ACCOUNT HOLDERS	 ZIP CODE ALERTS	 MEDIA AND SOCIAL MEDIA	 BUSINESSES AND MASTER METER
<p>We will send customers notifications through automated calls, texts and emails.</p> <p>Updating contact information is encouraged.</p> <p>CALL: 866-743-6589</p> <p>pge.com/mywildfirealerts </p>	<p>Non-PG&E account holders can receive event notifications by ZIP Code through automated calls, texts and emails.</p> <p>CALL: 877-9000-PGE TEXT: ENROLL to 97633</p> <p>pge.com/pspszipcodealerts </p>	<p>We will keep local news, radio outlets and social media outlets informed and updated.</p> <p>   </p> <p>pge.com/pspsupdates </p>	<p>We encourage businesses and master meter account holders to create a regularly-updated contact roster and share PSPS notifications with their contacts when they are received.</p> <p>pge.com/beprepared </p>



Weather Webpage And 7-Day PSPS Forecast

PG&E's dedicated **weather webpage** offers a **7-day PSPS potential forecast** that indicates the **potential weather conditions** that could necessitate a PSPS.

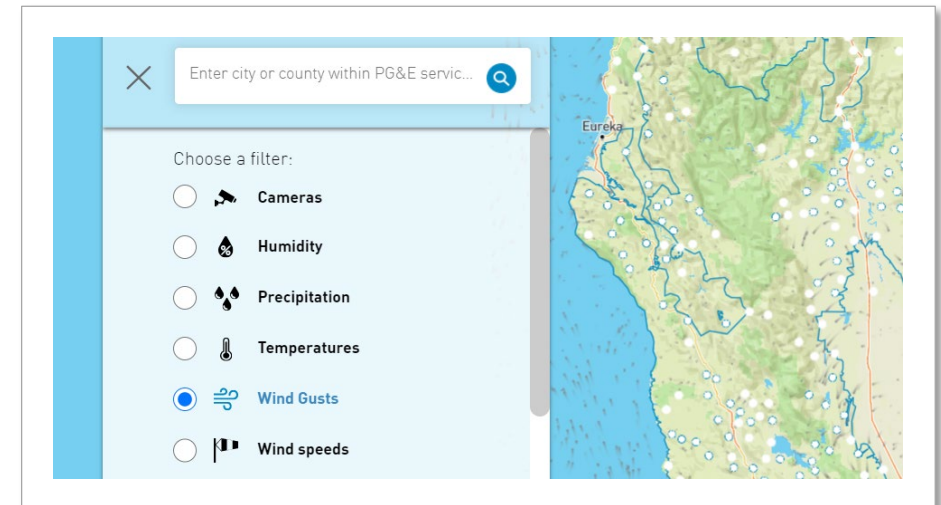
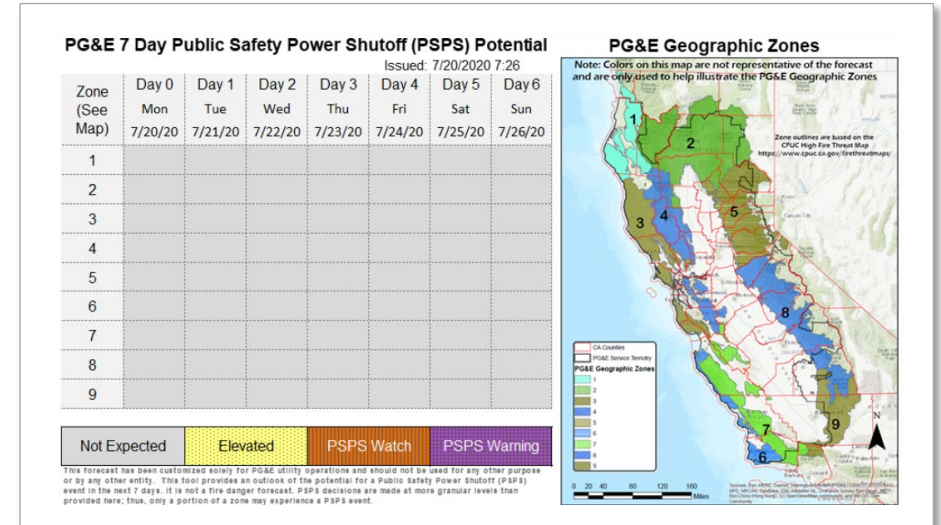
The 7-day PSPS potential forecast is **updated daily** by PG&E's **meteorology team**.

PG&E's weather webpage also offers an **interactive weather map updated in real time** using information from weather stations and cameras throughout PG&E's service territory.



To sign up for daily email notifications regarding PSPS, visit cloud.em.pge.com/PSPS-7day-Signup.

pge.com/weather





“PSPS Watch” Customer Notifications Scripts

WATCH EMAIL

PG&E
PG&E Outage Alert: Power shutoffs are required for safety
To: powercustomer@email.com

English español 中文 tiếng việt Tagalog na wika 한국어 русский язык VIEW AS A WEBPAGE >

 **Public Safety Power Shutoff**

 **PSPS Outage Watch**

Due to current weather forecasts, your area is currently under a watch for a Public Safety Power Shutoff.

Current weather forecasts, including high winds and dry conditions, may require us to turn off power for wildfire safety.

 ESTIMATED SHUT OFF: Wednesday, October 7th 6PM–10PM <small>Shutoffs may be delayed if weather improves</small>	 ESTIMATED RESTORATION: Thursday, October 8th by 4PM
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3 METERS:

To download a CSV file of your locations, [visit XXXXXX](#).

WATCH TEXT

PG&E PSPS Outage Alert
10/5/20: Due to weather PG&E may turn off power for safety at 1234 EL ANYWHERE COURT on **10/7/20**.
Estimated shutoff: **6:00pm – 10:00pm**. Estimated restoration: **10/8/20 by 4:00 pm**. Changes in weather can affect shutoff & restoration times. [pge.com/pspsupdates](#)
Reply w/ “1” to verify receipt.

WATCH PHONE

This is PG&E calling with a PSPS outage alert. On 10/5/20, your power may be shut off for safety. To continue in English press 1. To replay this message at any time, press #.

Due to current weather forecasts 1234 EL ANYWHERE COURT is currently under a Watch for a Public Safety Power Shutoff. Weather forecasts including high winds and dry conditions, may require us to turn off your power to help prevent a wildfire. ESTIMATED SHUTOFF TIME: 10/7/20 between 6 pm and 10 pm. Shutoff times may be delayed if winds arrive later than forecast. We expect weather to improve by 6 am on 10/8/20. After weather has improved, we will inspect equipment before restoring power.

ESTIMATED RESTORATION TIME: 10/8/20 by 4 pm. This restoration time may change depending on weather conditions and equipment damage.

We recommend all customers have a plan for an extended outage. We will provide daily updates until the weather risk has passed or power has been restored. This will include a Warning alert if we have determined it is necessary to turn off your power. For planning resources or more information visit [pge.com/pspsupdates](#) or call 1-800-743-5002.

If you rely on power to operate life-sustaining medical devices or have access and functional needs, additional support may be available. For more information, visit [pge.com/specialresources](#).

If this is not the correct phone number for 1234 EL ANYWHERE COURT, press 2.

Press # to repeat this message.

Thank you. Goodbye.

“PSPS Warning” Notifications Scripts – General Customers

WARNING EMAIL

PG&E
PG&E Outage Alert: Power shutoffs are required for safety
To: powercustomer@email.com

English español 中文 tiếng việt Tagalog na wika 한국어 русский язык VIEW AS A WEBPAGE >

Public Safety Power Shutoff

PSPS Outage Warning
To protect public safety, PG&E has upgraded the Public Safety Power Shutoff watch to a warning.

ADDRESS:
123 Main Street

ESTIMATED SHUT OFF: Wednesday, October 7th 6PM–10PM <small>Shutoffs may be delayed if weather improves</small>	ESTIMATED RESTORATION: Thursday, October 8th by 4PM
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Power will remain off until weather conditions improve and equipment inspections are complete. This restoration time could change due to weather conditions or equipment damage.

WARNING TEXT

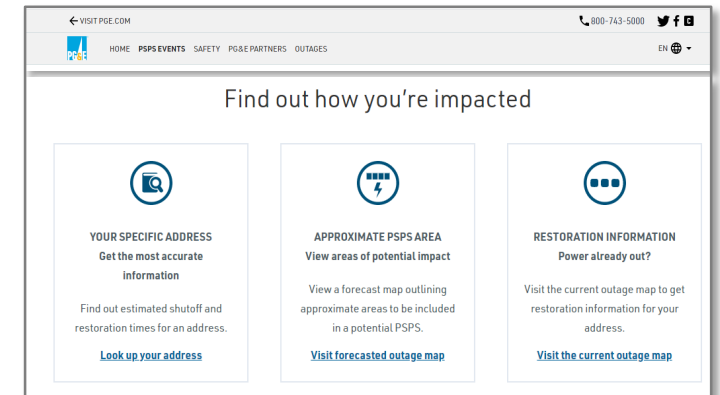
PG&E PSPS Outage Alert
10/7/20: PG&E will turn off power for safety at 1234 EL ANYWHERE COURT on **10/7/20**. Estimated shutoff: **6:00pm – 10:00pm** or later if weather improves. Estimated restoration: **10/8/20 by 4:00 pm** depending on weather & equipment damage. Info: pge.com/pspsupdates Reply w/ “1” to verify receipt.



We immediately upgraded our website to serve higher levels of traffic during a PSPS event following the October 2019 PSPS event and website failure.

We are increasing website hosting capability to support even higher web traffic in the future, including:

- ✓ **Moving pge.com to the Cloud**
- ✓ **Built a new stand-alone, cloud-based website specifically for emergencies**
 - **Automatically redirects traffic** from pge.com to an alert site when an event is active
 - **Developing an “all-in-one” map** that includes both PSPS planned outages and actual outages
 - **Developed lower bandwidth options** to serve smart phone users
 - **Simpler language and layouts**
 - **Faster upload of information**
 - **Fully multilingual-translated content with ADA accessibility**





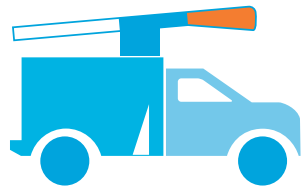
How Is PG&E Improving Restoration Times?

We expect to be able to restore power to most customers **within 12 daylight hours after severe weather has passed** – a **50% improvement** from 2019.



WEATHER
ALL CLEAR

After severe weather has passed, crews begin inspections



PATROL &
INSPECT

Crews visually inspect for potential weather-related damages by **foot, vehicle and air**



ISOLATE &
REPAIR DAMAGE

Crews work to **isolate and fix damage**



RESTORE
POWER

The **PG&E Control Center** restores power to the affected areas




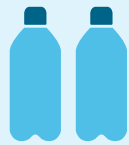




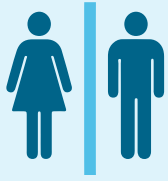


NOTIFY
CUSTOMERS

Customers are notified that **power has been restored**

Note: Because severe weather can last several hours or days, for planning purposes, we suggest customers prepare for outages that could last multiple days.

CRC Resources and COVID-19 Considerations Overview

During a PSPS event, PG&E will open CRCs to provide a safe location where community members can access basic resources, as well as up-to-date information. The following resources may be available:

 Heating and cooling	 Device charging	 Bottled water	 Non-perishable snacks	 Wi-Fi service
 Coffee/tea	 Blankets	 ADA-compliant restrooms and hand washing stations	 Security personnel	 Chairs and tables





During a PSPS event, CRC locations will be shared on [pge.com/pspsupdates](https://www.pge.com/pspsupdates) and via social media.

COVID-19 CONSIDERATIONS

PG&E is adapting our approach to CRCs to reflect appropriate COVID-19 health considerations and state and county guidelines.

We will offer **Micro CRCs** (smaller, open air tents) and **Mobile CRCs** (vans) to **supplement Indoor CRCs** if shelter-at-home and physical distancing recommendations prevent the use of Indoor CRCs.

We are also taking measures to:

-  **Require facial coverings**
-  **Administer temperature checks** before entering indoor facilities
-  **Limit attendance** to maintain physical distancing
-  **Regularly sanitize surfaces**

The **Safety Action Center** contains helpful information about wildfire risks and **what customers can do before, during and after an emergency to keep their home, family or business safe.**

Resources on the website include:

- ✔ Tips on how to **create an emergency plan**
- ✔ **Emergency preparedness guides and videos**
- ✔ Links to the statewide **Power of Being Prepared campaign** and **other resources**

The content is **social media-friendly** to encourage sharing and is **available in Spanish and Chinese.**



Make sure we can reach you in an emergency.



Tips to prepare for a power shutoff.



Emergency planning tips for people who rely on electric or battery dependent medical devices.



Do you have a medical need for electricity?



Prepare an emergency kit with these six easy steps.



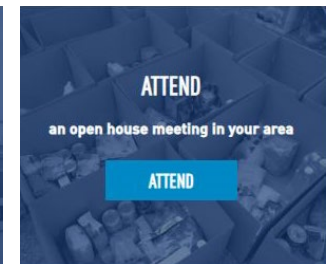
Have you considered a backup power option for your home?



SIGN UP
for wildfire safety alerts
SIGN UP



CREATE
your emergency checklist
CREATE CHECKLIST



ATTEND
an open house meeting in your area
ATTEND

safetyactioncenter.pge.com



Where To Go For Additional Information



STAY UP TO DATE DURING A PSPS EVENT

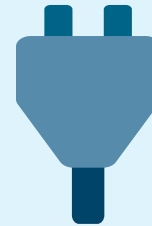
pge.com/PSPSupdates



WEATHER AND PSPS FORECASTING

Live weather information, a 7-day PSPS potential lookahead and images from PG&E's high-definition cameras deployed in high fire-threat areas.

pge.com/weather



BACKUP POWER

Information on backup power options, safety tips, financing options, a marketplace to search major backup power retailers and more.

pge.com/backuppower



SAFETY ACTION CENTER

Information about wildfire risks and what customers can do before, during and after an emergency to keep their home, family or business safe.

safetyactioncenter.pge.com



PREPARING FOR OUTAGES

Tips for making a safety plan, building an emergency kit, planning for medical needs and more.

prepareforpowerdown.com



prepareforpowerdown.com

Statewide education and awareness resource, led jointly by PG&E, San Diego Gas & Electric and Southern California Edison at the direction of the CPUC

ready.gov

Disaster preparedness information from the U.S. Department of Homeland Security

readyforwildfire.org

CAL FIRE's wildfire preparedness website

cpuc.ca.gov/wildfiresinfo

Information on the CPUC's wildfire safety efforts

caloes.ca.gov

California Governor's Office of Emergency Services website

cafiresafecouncil.org

California Fire Safe Council website

noaa.gov

National Oceanic and Atmospheric Administration website

Thank You

For more information, please:

- Call us at **1-866-743-6589**
- Email us at **wildfiresafety@pge.com**
- Visit **[pge.com/wildfiresafety](https://www.pge.com/wildfiresafety)**

