

# Community Wildfire Safety Program

Monterey County Board of Supervisors

March 3, 2020



# Community Wildfire Safety Program



## REAL-TIME MONITORING AND INTELLIGENCE

- Coordinating prevention and response efforts by monitoring wildfire risks in real time from our **Wildfire Safety Operations Center**
- **Expanding our network of PG&E weather stations** to enhance weather forecasting and modeling
- Supporting the **installation of new high-definition cameras** in high fire-threat areas



## NEW AND ENHANCED SAFETY MEASURES

- Further enhancing vegetation management efforts to **increase focus on vegetation that poses a higher potential for wildfire risk**
- **Regularly conducting enhanced safety inspections** of electric infrastructure in high fire-threat areas
- **Disabling automatic reclosing of circuit breakers and reclosers** in high fire-risk areas during wildfire season
- **Proactively turning off electric power for safety (Public Safety Power Shutoff)** when gusty winds and dry conditions combine with a heightened fire risk



## SYSTEM HARDENING AND RESILIENCY

- Installing **stronger and more resilient poles and covered power lines**, along with **targeted undergrounding**
- **Upgrading and replacing electric equipment and infrastructure** to further reduce wildfire risks
- **Working with communities to develop new resilience zones** to provide electricity to central community resources during a Public Safety Power Shutoff event

# Real-Time Monitoring and Intelligence

**MONITORING** wildfire risks in real time from our  
**24/7** Wildfire Safety  
 Operations Center  
 and coordinating **prevention and response efforts**



**INSTALLING**

**~1,300** new weather  
 stations by **2022**

Data available at [mesowest.utah.edu](https://mesowest.utah.edu)



**SUPPORTING** the installation of

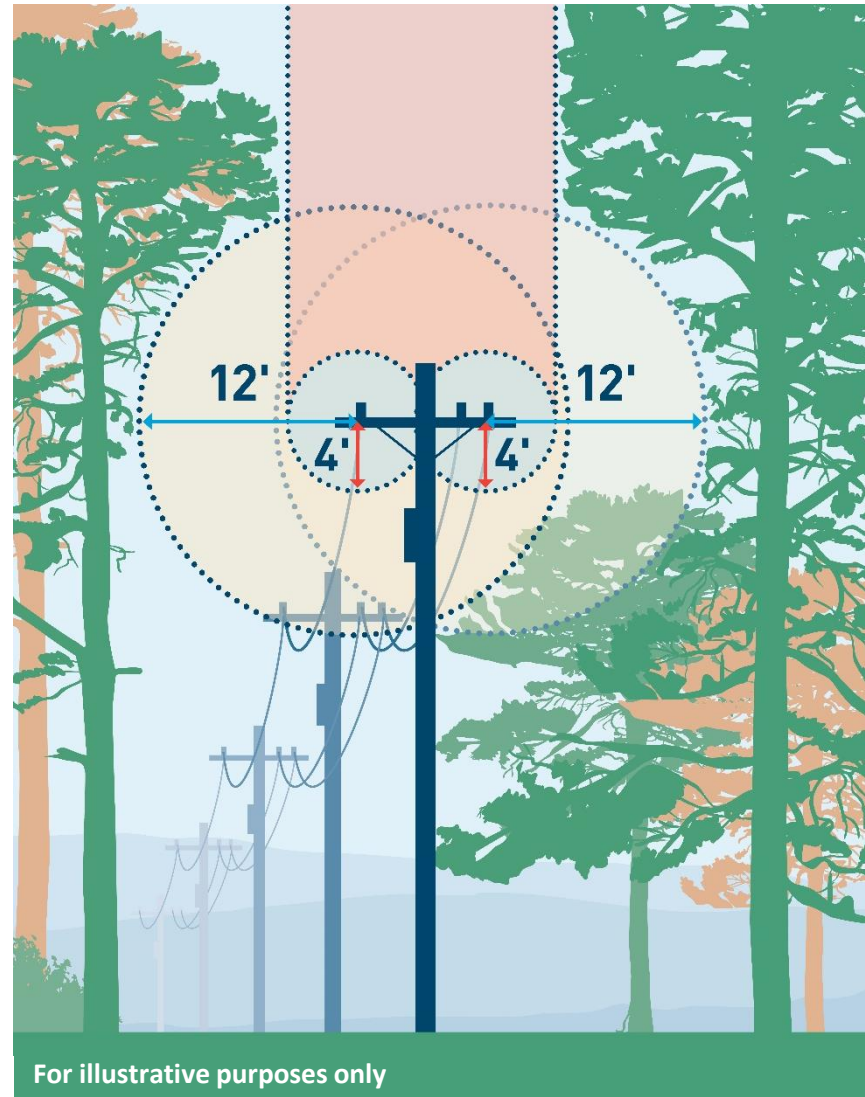
**~600** high-definition  
 cameras by **2022**

Images available at [alertwildfire.org](https://alertwildfire.org)

# Enhanced Vegetation Management

We are **expanding and enhancing our Vegetation Management program** to further reduce wildfire risk.

- Our enhanced vegetation management work includes the following:
  - ☑ **Meeting state standards** for minimum clearances around the power line
  - ☑ **Addressing overhanging limbs and branches** four feet out from the lines and up to the sky
  - ☑ **Removing hazardous vegetation such as dead or dying trees** that pose a potential risk to the lines if they are tall enough to strike
  - ☑ **Evaluating the condition of trees that may need to be addressed** if they are tall enough to strike the lines
- We are working to complete this important safety work **in high fire-threat areas** over the next several years.



# System Hardening and Resiliency

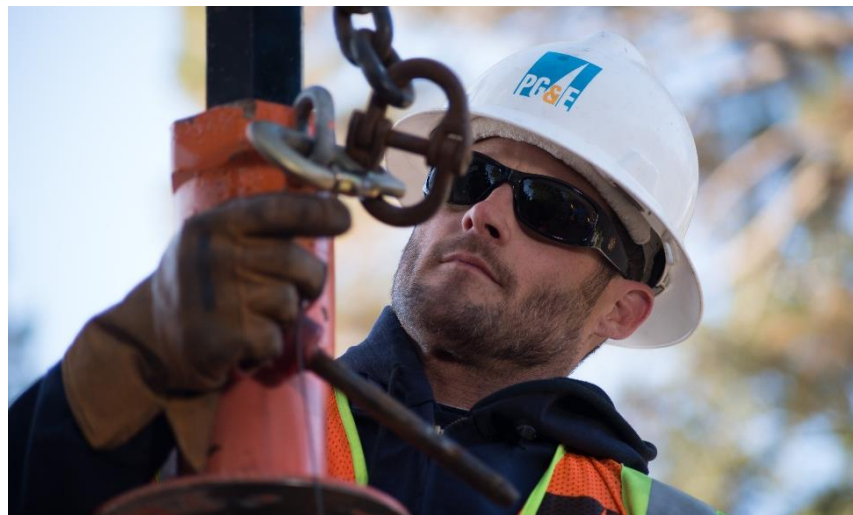
**Installing stronger and more resilient poles and covered power lines** across approximately 7,100 line miles of highest fire-risk areas

.....

**Replacing equipment to further reduce risk to our system** and tailoring upgrades based on terrain and weather conditions using more granular analysis of fire-prone regions

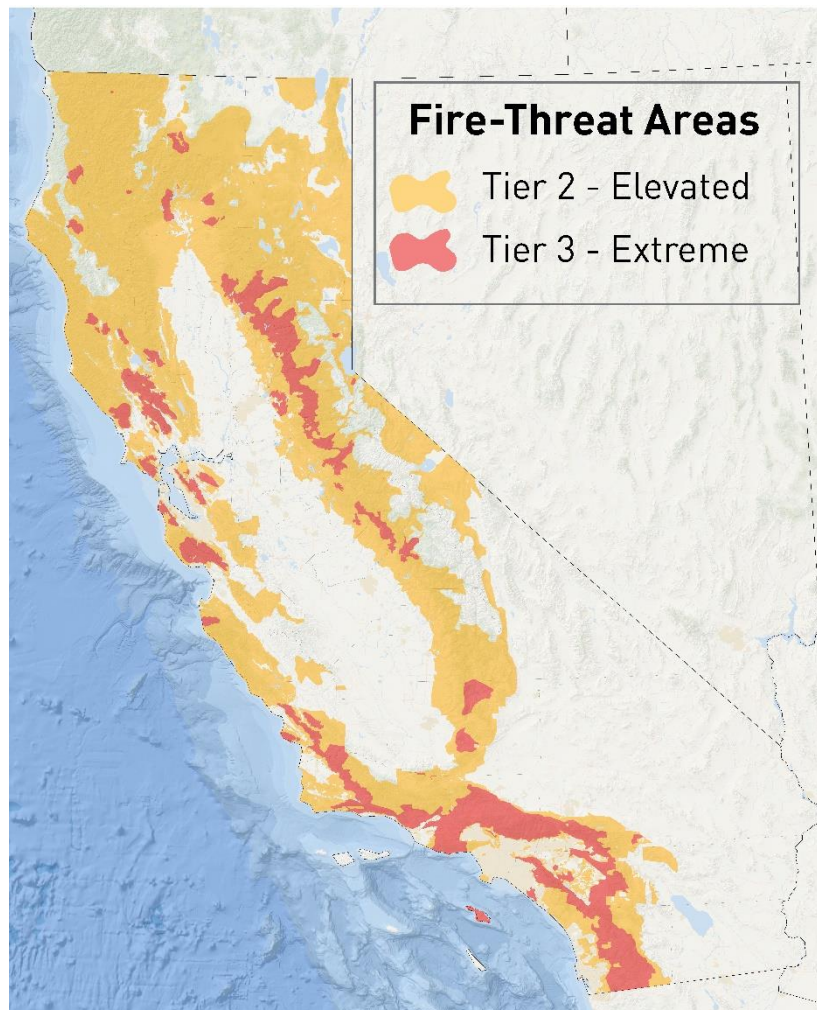
.....

**Regularly conducting enhanced safety inspections** of electric infrastructure in high fire-threat areas





# Public Safety Power Shutoff (PSPS)

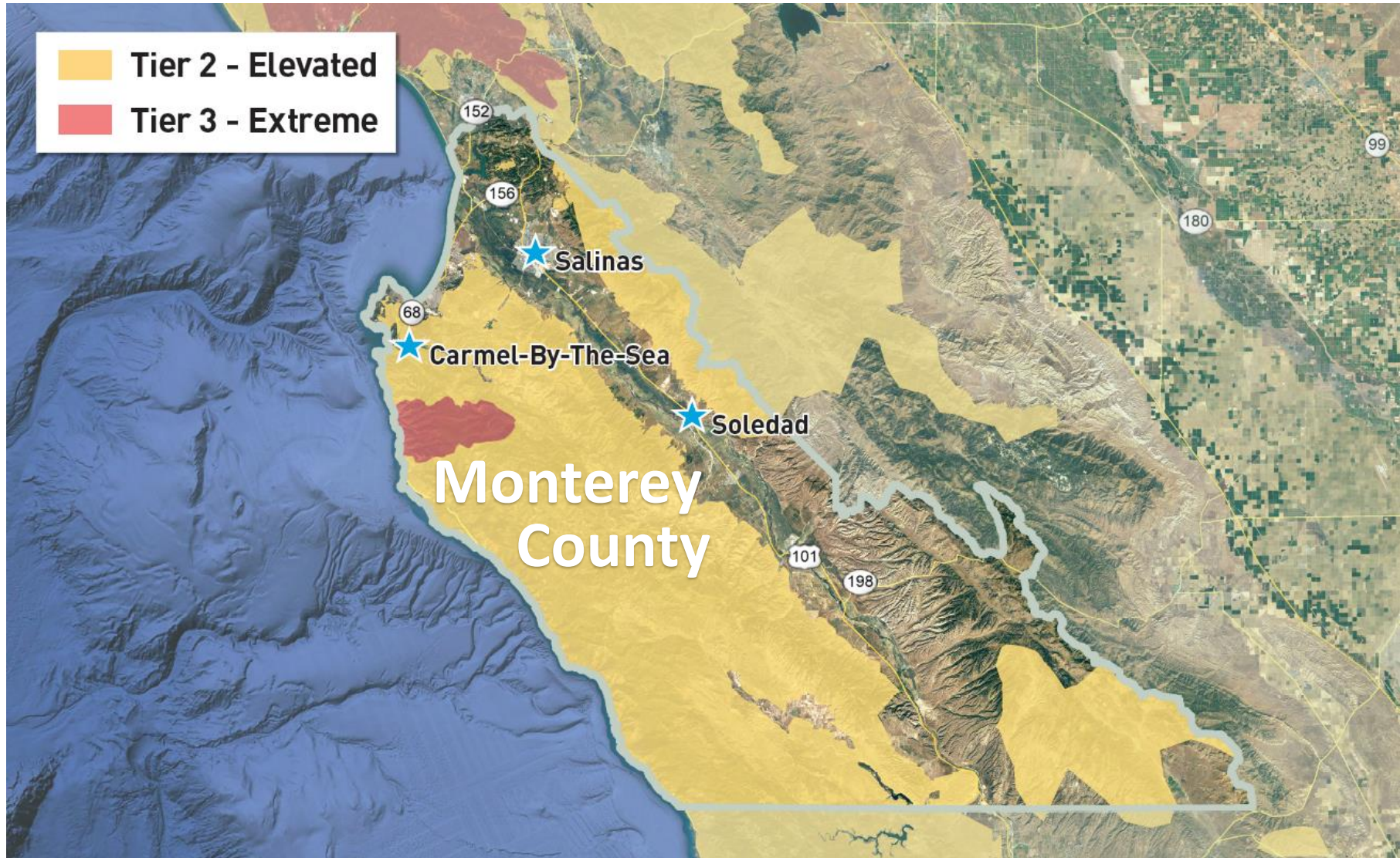


Source: California Public Utilities Commission

- Our Public Safety Power Shutoff program includes **all electric lines that pass through high fire-threat areas – both distribution and transmission.**
- The most likely electric lines to be considered for shutting off for safety are those that pass through **areas that have been designated by the California Public Utilities Commission (CPUC) as an elevated (Tier 2) or extreme (Tier 3) risk for wildfire.**
- Because the energy system **relies on power lines working together** to provide electricity, **any of PG&E's more than 5 million electric customers could have their power shut off.**
- The **CPUC High Fire-Threat District Map** was **adopted in January 2018** and can be accessed at **[cpuc.ca.gov/FireThreatMaps](https://cpuc.ca.gov/FireThreatMaps).**



# CPUC High Fire-Threat District Map: Monterey County



# PSPS Criteria

We **monitor conditions** across our system and evaluate whether to proactively turn off electric lines for safety **when gusty winds and dry conditions combine with a heightened fire risk.**

While no single factor will drive a Public Safety Power Shutoff, some factors include:



## A RED FLAG WARNING

declared by the National Weather Service



## LOW HUMIDITY LEVELS

generally 20% and below



**FORECASTED SUSTAINED WINDS GENERALLY ABOVE 25 MPH AND WIND GUSTS IN EXCESS OF APPROXIMATELY 45 MPH**, depending on location and site-specific conditions such as temperature, terrain and local climate



## CONDITION OF DRY FUEL

on the ground and live vegetation (moisture content)



## ON-THE-GROUND, REAL-TIME OBSERVATIONS

from PG&E's Wildfire Safety Operations Center and field observations from PG&E crews



# Why Is Power Off Where It's Not Windy?

## HIGH WINDS



50 MPH  
WIND GUSTS



TRANSMISSION LINES

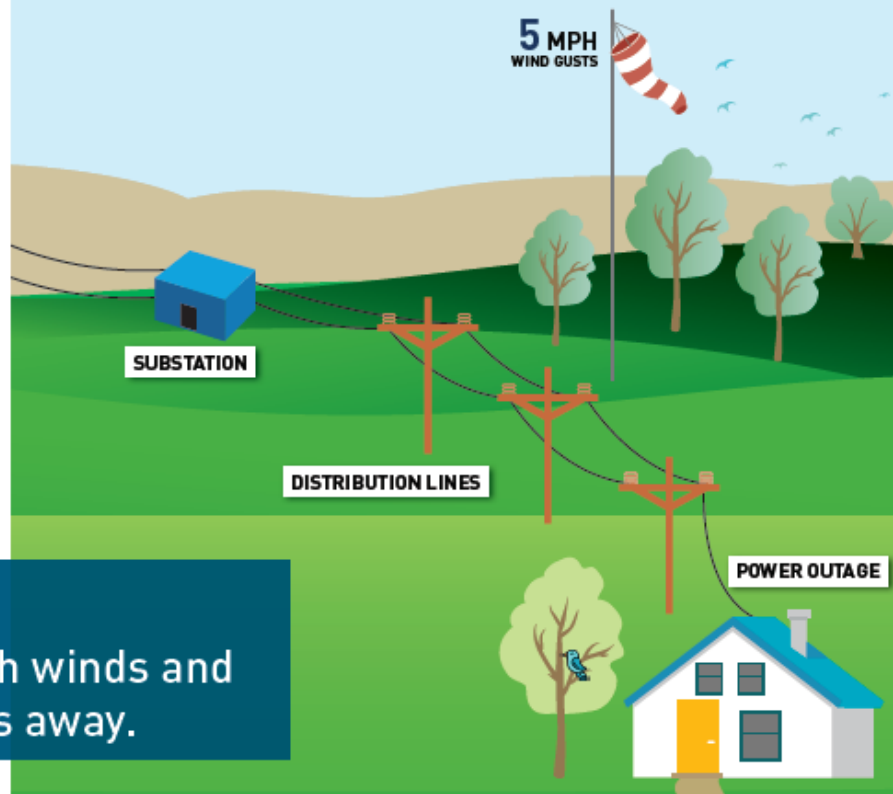
**Power lines travel long distances.**

That means your power can be affected by high winds and severe weather that threaten the system miles away.

## LOW WINDS



5 MPH  
WIND GUSTS



SUBSTATION

DISTRIBUTION LINES

POWER OUTAGE

# PSPS Event Notifications

Extreme weather threats can change quickly. **Our goal, dependent on weather, is to provide customers with advance notice prior to turning off power.** We will also provide updates until power is restored.

## Timing of Notifications (when possible)

- **~48 HOURS** before electricity is turned off
- **~24 HOURS** before electricity is turned off
- **JUST BEFORE** electricity is turned off
- **DURING THE PUBLIC SAFETY OUTAGE**
- **ONCE POWER HAS BEEN RESTORED**



### City/County/Tribe/Agency Notifications

We will make every attempt to provide notice in advance of notifying customers through:

- **Phone calls/emails** to primary contacts
- **Automated notifications** to send alerts through multiple channels
- **Provide customer alerts** to share via channels, such as city, county or tribal website, Nixle, Nextdoor and Reverse 911

### Customer Notifications

We will attempt to reach customers through **calls, texts and emails**. We will also use **social media** and keep **local news** and **radio outlets** informed and updated.

# Working to Restore Power

**We will only restore power when we are certain it is safe to do so. We expect to be able to visually inspect for damage and restore power to most of our customers within 24 to 48 hours after weather has passed.**



## WEATHER ALL CLEAR

**After the weather has passed** and it's safe to do so, our crews begin **patrols and inspections**.



## PATROL & INSPECT

Crews **visually inspect for potential weather-related damage to ensure the lines are safe to energize**. This is done by vehicle, foot and air, primarily during daylight hours.



## ISOLATE & REPAIR DAMAGE

Where damage is found, **crews work to isolate the area** so other parts of the system can be restored. Crews work **safely and as quickly as possible** to make repairs.



## RESTORE POWER

Once it is safe to energize, **a call is made to the PG&E Control Center** to complete the energization process. **Power is then restored to customers.**



## NOTIFY CUSTOMERS






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

**Because weather can last several hours or days, for planning purposes, we suggest customers prepare for outages that could last longer than 48 hours.**





# 2019 PSPS Overview: Monterey County

		OCT 26-NOV 1
	CUSTOMERS IMPACTED	~10,000
	COMMUNITY RESOURCE CENTERS	1
		~1,025 visitors
	PEAK WIND GUSTS RECORDED	36 MPH
	DAMAGE/HAZARD INCIDENTS	~1
	MAXIMUM OUTAGE DURATION	~66 HOURS

Note: All numbers are approximate. Majority of data is current as of 1/21/20 but is subject to change based on ongoing data reconciliation. <sup>12</sup>  
Following the wildfires in 2017 and 2018, some of the changes included in this presentation are contemplated as additional precautionary measures intended to further reduce future wildfire risk.

# Reducing PSPS Impacts

PG&E has made and will continue to make improvements to reduce the impact and scope of PSPS on its customers, including:



## Improving weather data analysis by next wildfire season:

- Broadening historical weather and fuel data from **~80 billion** data points to **~180 billion** data points allowing for additional and more granular analysis\*
- Expanding daily forecast dataset from **100 million** data points to **1.2 billion** data points
- Refining weather model resolution from **3 km** to **2 km**, which will allow us to zoom to a level **approximately twice as detailed**



## Reducing inspection times to speed up safe power restoration:

- **Nearly doubling aerial support**
- Increasing the **number of qualified contractors** and mutual assistance
- Goal is to **reduce restoration time** from 24 daylight hours to 12 daylight hours



## Installing additional sectionalizing devices to reduce potential scope:

- **More than 200** devices installed to date allowing potential scope reduction of **~138,000** customers
- **~550** additional devices planned, which will allow for a potential scope reduction of **~370,000** additional customers

PG&E is also establishing **resilience zones**, evaluating potential **distributed generation-enabled microgrid solutions**, strengthening our **electric infrastructure** and enhancing **vegetation management** practices.

\*This data set was not available last year given that the 30-year climatology study was still under development.

# Summary of Feedback to Date

**We are continually working to minimize the impact these events have on our communities.**  
Our ongoing efforts include:



## **Information Sharing**

- **Portal:** working to streamline the secure data transfer portal to be more intuitive and timely
- **Maps:** creating more granular maps without buffered polygons
- **Website:** moved certain web features to cloud-based solutions that can scale up and increase capacity



## **External Stakeholder Coordination**

- **Operations Briefings:** added webcast tools and reviewing meeting format and frequency
- **Single Point of Contact (SPOC):** improved information sharing with local communities
- **Local EOC Staffing:** made dedicated liaison and GIS support available to embed in a local jurisdiction's EOC



## **Community Resource Centers (CRCs)**

- **Expanded Number of CRCs:** doubled the number of sites to serve more customers
- **Collaboration with Counties/Tribes:** worked with local agencies and tribes to identify additional locations and will consider more permanent structures
- **Increasing the Resources Available:** incorporated feedback about amenity offerings



## **Restoration Timing**

- **Estimated Time of Restoration (ETORs):** will provide restoration updates sooner and with more accuracy
- **Mutual Assistance:** leveraged resources to accelerate safety patrols and restoration timing

**We're here to listen. We appreciate the hardship and frustration these events have caused, and we are committed to improving.**



# Additional Information

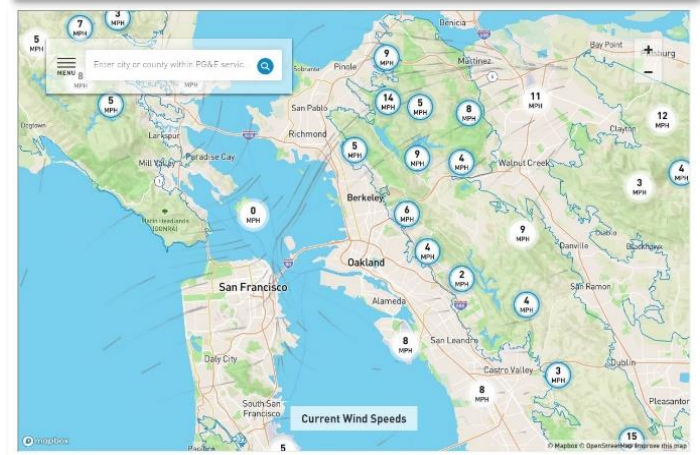
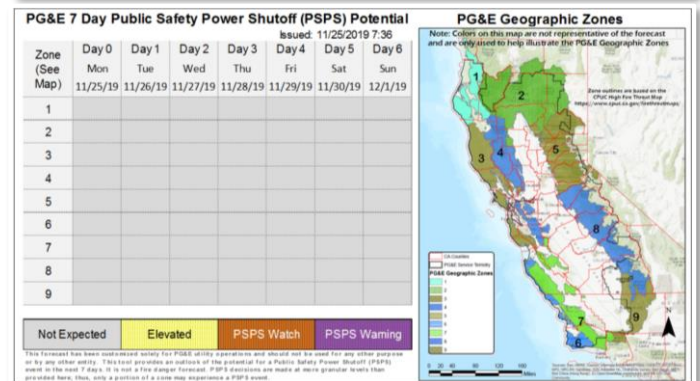


# Weather and PSPS Forecasting Website

PG&E has a dedicated weather forecasting webpage

[pge.com/pspsweather](https://pge.com/pspsweather)

- **Weather data and daily forecasting information**, including a 7-Day PSPS potential lookahead.
- **Lookahead shows when and where PG&E is forecasting** the type of conditions that may lead to a PSPS event.
- **On our website you can also:**
  - **Find live weather information** from the hundreds of weather stations PG&E has installed.
  - **View images** from the more than 100 high-definition cameras PG&E has deployed in high fire-threat districts.



# PSPS ZIP Code Alerts

**PG&E's ZIP Code Alert tool allows anyone to sign up to receive PSPS event notifications by ZIP Code**

[pge.com/pspszipcodealerts](https://pge.com/pspszipcodealerts)

- Anyone can sign up to be notified of potential PSPS events which **may affect their workplace, a child's school or the home of a friend or loved one.**
- This tool is especially useful for **tenants, caretakers, travelers, parents of school-age children** and other non-account holders.
- **These alerts will be based on the ZIP Code provided** and will not provide address-specific notifications; maps of the affected area(s) will be at **[pge.com/pspsupdates](https://pge.com/pspsupdates).**
- All customers **who have a PG&E account** will be notified of a potential PSPS event which may affect the PG&E account location(s) using **the contact information on file.** Visit **[pge.com/mywildfirealerts](https://pge.com/mywildfirealerts)** to ensure your info is up-to-date.
- To sign up for phone call alerts, call **1-877-900-0743.**
- To sign up for text alerts, text **"ENROLL" to 97633.**





**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.

**VISIT:**

[safetyactioncenter.pge.com](https://safetyactioncenter.pge.com)



Make sure we can reach you in an emergency.

Act Now



Is your whole family ready for an emergency?

Record Your Video



Have you mapped out escape routes from your home?

Share



Quiz: Do you know what to pack in your emergency kit?

Share



Create your emergency plan today!

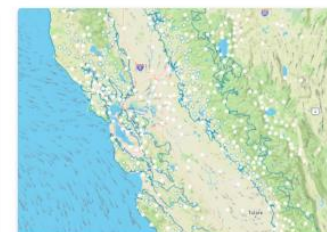
Share



Prepare an emergency kit with these six easy steps.



Don't forget your neighbors.



Visit PG&E's new Weather Awareness Center.

# Preparing Facilities

We are providing a **checklist for businesses** to help prepare facilities for a potential power outage.

For more information and preparedness tips, visit:

[pge.com/beprepared](http://pge.com/beprepared)



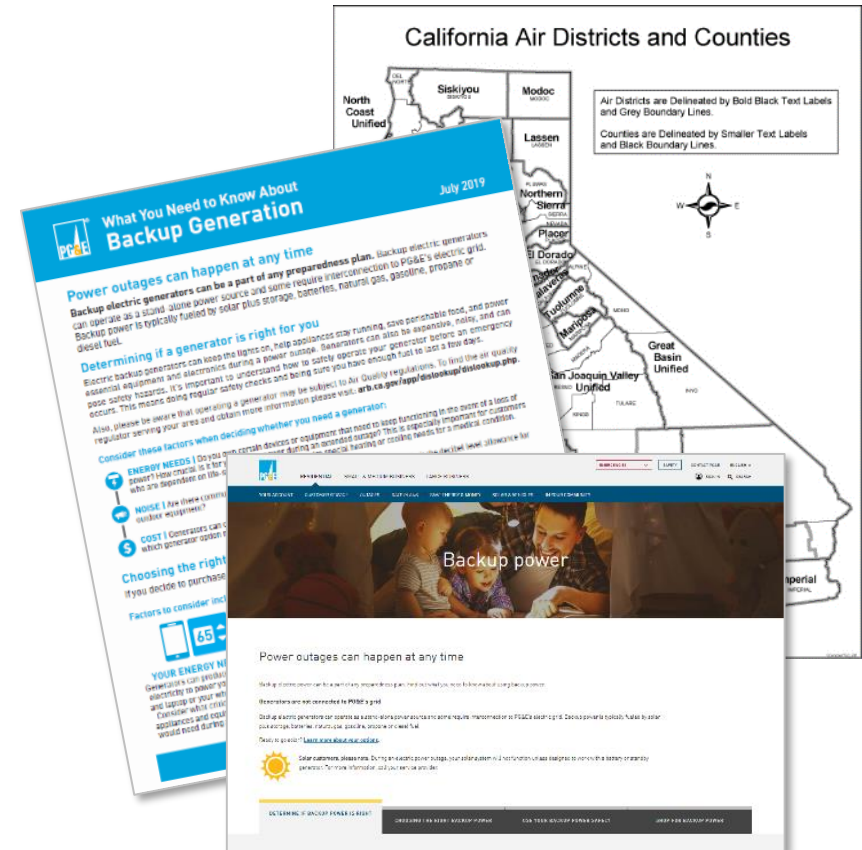
# Backup Power and Air Quality

We are providing resources to help customers determine if backup power is right for them as part of their preparedness plan.

A **dedicated website** and **fact sheet** on **backup power options** that include:

- ✓ **Tips for assessing energy needs** and choosing the right backup power option.
- ✓ **Alternatives to generators**, including portable power storage and battery technology.
- ✓ **Guidance for how to safely use** portable and permanent stand-by generators.
- ✓ **Financing options** including a list of resources.
- ✓ **A marketplace to search all major backup power retailers** and find energy efficient products.

Operating a backup generator may be subject to **air quality regulations**; for information visit [arb.ca.gov/app/dislookup/dislookup.php](http://arb.ca.gov/app/dislookup/dislookup.php).



[pge.com/backuppowers](http://pge.com/backuppowers)



## We welcome your feedback and input

For questions regarding PG&E's Community Wildfire Safety Program, please direct customers to:

- Call us at **1-866-743-6589**
- Email us at **wildfiresafety@pge.com**
- Visit **pge.com/wildfiresafety**

