

Community Wildfire Safety Program

Alameda County

June 6, 2019



Together, Building
a Better California



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**
- **Conducting accelerated 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 extreme fire danger conditions are forecasted



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

SUPPORTING the installation of
~600 high-definition
cameras by **2022**
Images available at alertwildfire.org

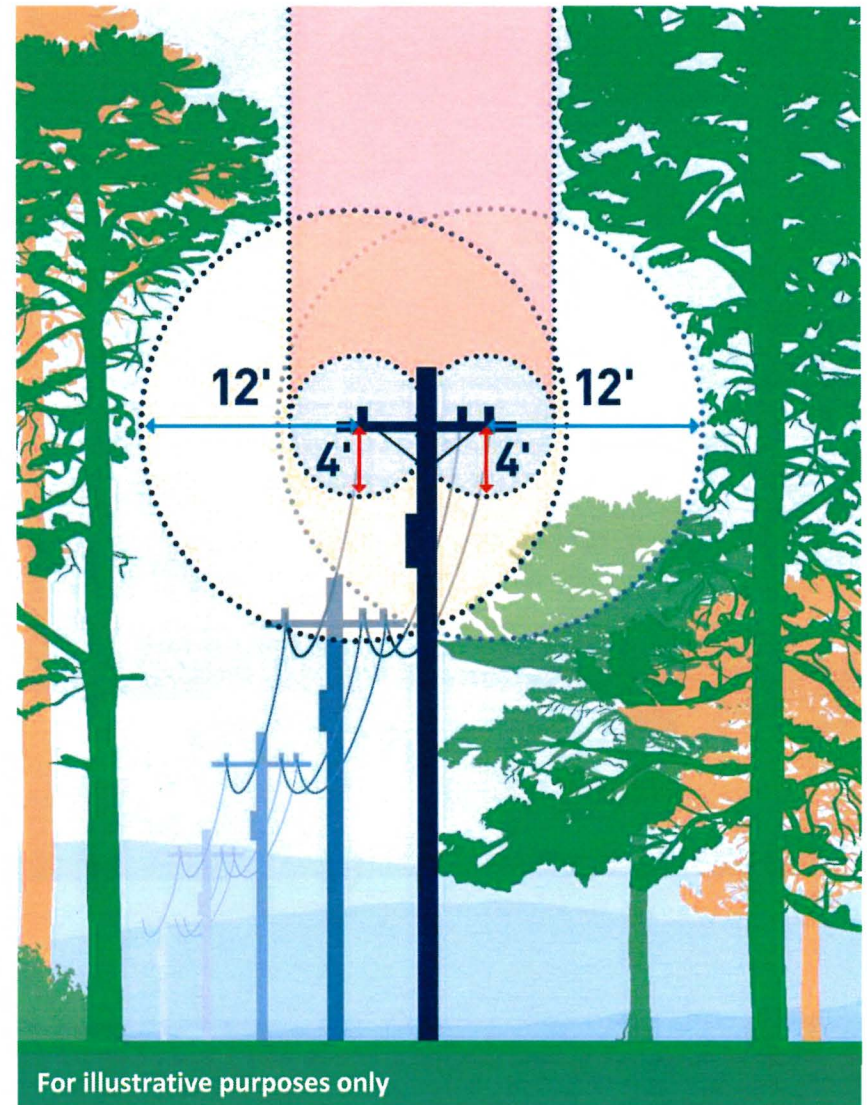




Enhanced Vegetation Management

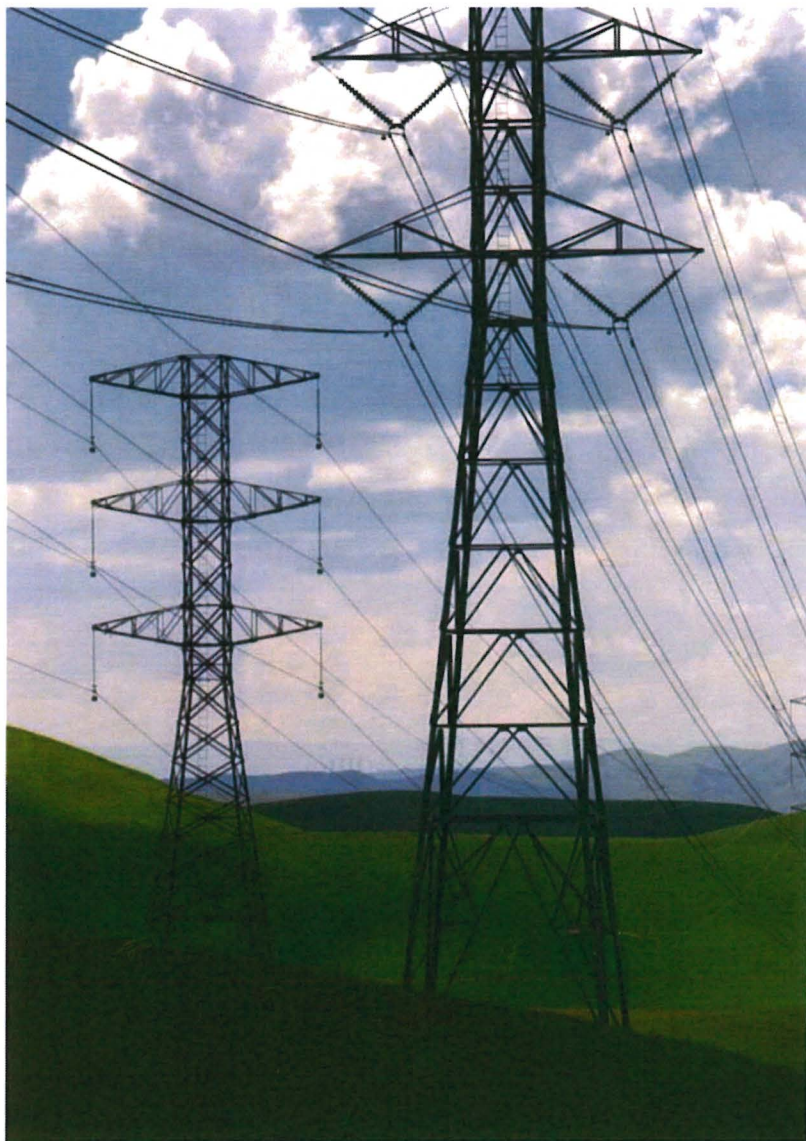
We are **expanding and enhancing our Vegetation Management program** to further reduce wildfire risk

- Our enhanced vegetation management work includes the following:
 - ✓ **Meeting and exceeding state standards** for minimum clearances around the power line
 - ✓ **Addressing overhanging limbs and branches** directly above and around the lines
 - ✓ **Removing dead and dying trees** as well as specific tree species that have more frequently fallen into PG&E lines and caused an ignition
- We are working to complete this important safety work **in high fire-threat areas** over the next several years





Wildfire Safety Inspections

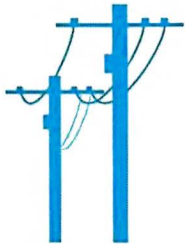


As part of our enhanced wildfire safety efforts, implemented following the 2017 and 2018 wildfires as additional precautionary measures intended to further reduce wildfire risks, **we are conducting accelerated safety inspections of electric infrastructure in areas of higher wildfire risk** (Tier 2 and Tier 3).

- **We are conducting comprehensive inspections of electric towers and poles** through visual and aerial inspections.
- This work is being done as part of our Community Wildfire Safety Program, and is **in addition to our routine inspections and maintenance** programs.
- We are inspecting **substations and transmission and distribution lines** in high fire-threat areas.



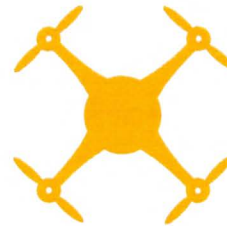
Inspections Overview



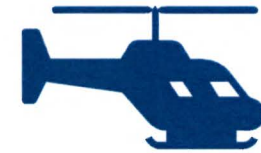
Accelerated inspections of transmission and distribution poles and towers as well as substations in high fire-threat areas



Visual inspections (ground and/or climbing) performed by crews of up to four people



Aerial inspections by drones to complement and further enhance inspections



Helicopters for inspections and to deliver crews to remote locations

We are taking action right away to address any immediate risk to public safety found during the accelerated inspections



Electric System Maintenance and Repairs

We will **evaluate inspection results to determine repair needs and associated timing**. If any issues are found during the accelerated inspections that pose an immediate risk to public safety, **we are taking action right away to address the issue**.



- When inspections determine that repairs are needed, but **there is not an immediate safety risk, we will follow our preventative maintenance procedures, consistent with state guidelines** for high fire-threat areas.
- Repairs will depend on what we observe in the field but could range from installing new signs or electrical components to replacing poles or towers.
- Where possible, **we will bundle work to minimize customer impact**, particularly if we need to de-energize the line to safely complete the repairs.



System Hardening and Resiliency

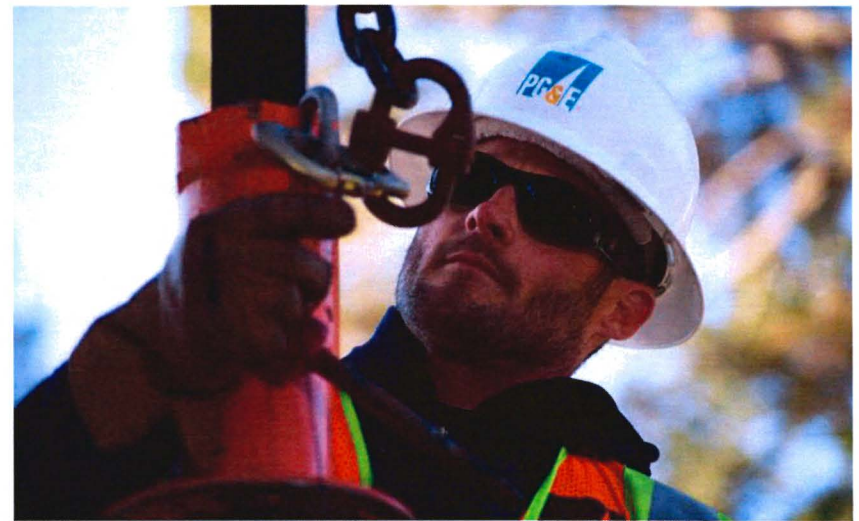
Installing stronger and more resilient poles and covered power lines across approximately 7,100 line miles of highest fire-risk areas

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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

.....

Piloting new resilience zones to allow PG&E to provide electricity to central community resources serving local customers during a Public Safety Power Shutoff (PSPS) event





Additional Safety Measures

To further reduce the risk of wildfires, we are **disabling automatic reclosing of circuit breakers and reclosers** on lines in high fire-risk areas during wildfire season.

Where we have remote control capability, we **disable reclosing based on a daily decision-making process during times of elevated risk.**

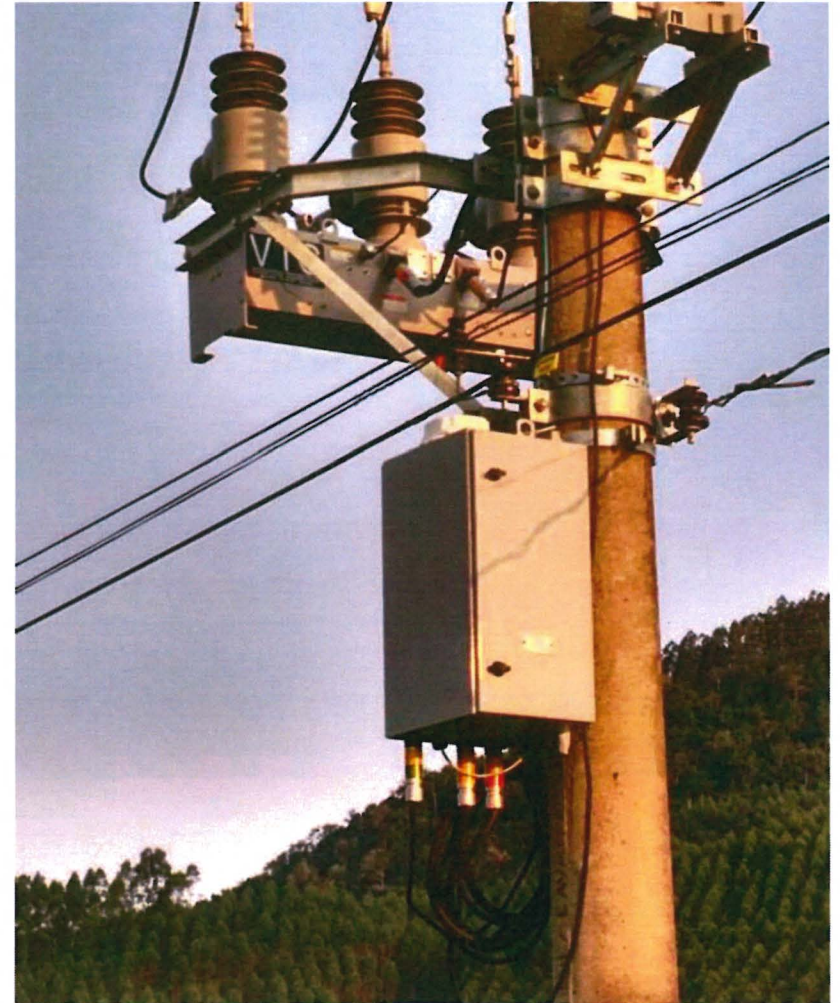
ENABLED

450 reclosing devices with remote capabilities in **2018**

WORKING to enable nearly

300 additional reclosing devices with remote capabilities

in advance of the **2019 wildfire season**





Public Safety Power Shutoff (PSPS)

We monitor conditions across our system and evaluate whether to proactively turn off electric lines for safety when extreme fire danger conditions are forecasted.

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



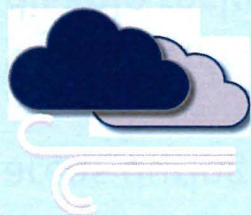
A RED FLAG WARNING

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)

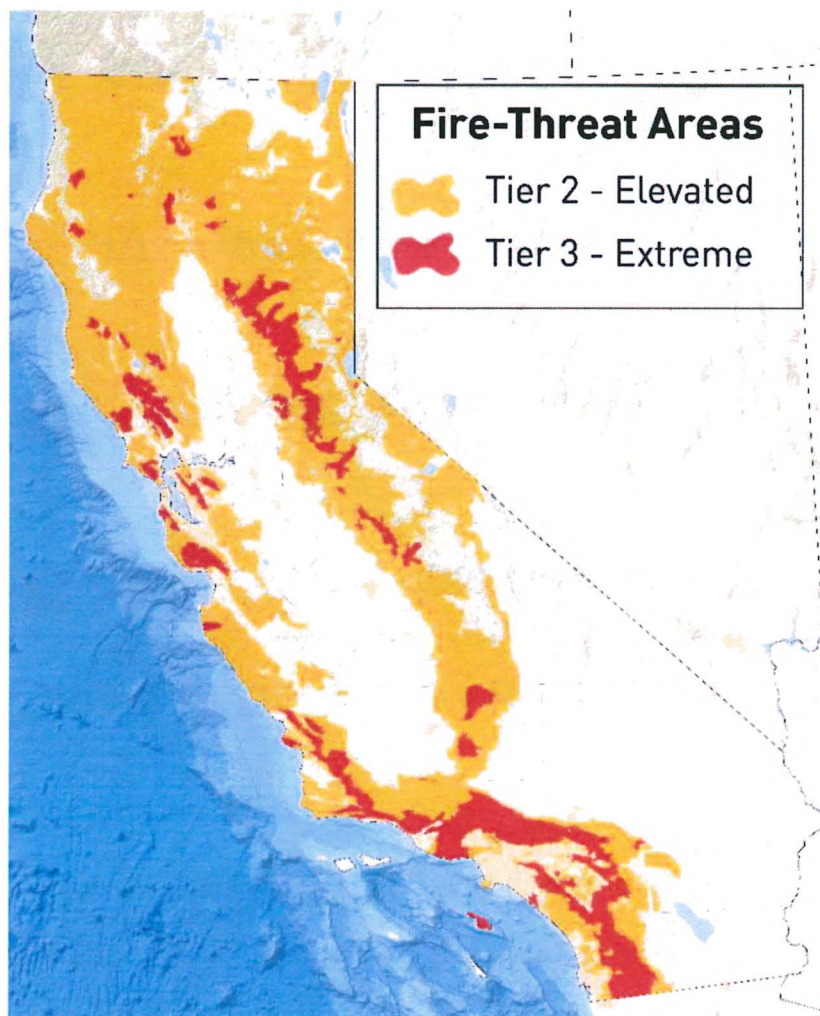


ON-THE-GROUND, REAL-TIME OBSERVATIONS

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



Public Safety Power Shutoff (PSPS)



Source: California Public Utilities Commission






- Beginning with the 2019 wildfire season, we are expanding our Public Safety Power Shutoff program to include **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 will be those that pass through **areas that have been designated by the CPUC as at 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.**



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/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 or county 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 the system for damage and restore power to most of our customers within 24 to 48 hours after extreme weather has passed. Because extreme weather can last several hours or days, for planning purposes, we suggest **customers prepare for outages that could last longer than 48 hours.**



WEATHER ALL CLEAR

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



PATROL & INSPECT

Crews **visually inspect** our electric system **to look for potential weather-related damage to the lines, poles and towers.** This is done by vehicle, foot and air 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.**



Working With Our Customers to Prepare



Reaching out to approximately 5 million customers and asking them to update their contact info at pge.com/mywildfirealerts



Holding answer centers and open houses (as needed) in advance of and during wildfire season



Mailing postcards to customers that do not have contact information on file



Providing tenant education kits to Master Meter customers



Conducting additional outreach to customers in high fire-threat areas through direct mail, preparedness checklist and email campaign



Placing calls and doing additional outreach to Medical Baseline and Medical Baseline-eligible customers in high fire-threat areas



Launching broad public safety advertising campaign



Continuing to share information through pge.com/wildfiresafety



Partnering with community leaders, first responders and public safety authorities around PSPS preparedness and coordination



Engaging with organizations for our customers who have specific needs to explore ways we can partner



Learn More

We welcome your feedback and input

For questions regarding PG&E's Community Wildfire Safety Program, please contact:

- **Les Putnam**
 - 925-674-6374
 - Leslie.Putnam@pge.com

Please direct customers with questions to:

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



As a critical partner in emergency response, we want to notify you about a potential Public Safety Power Shutoff in your area, when possible. Please provide the best phone numbers and email addresses for your organization.

