

# Community Wildfire Safety Program

EL DORADO COUNTY BOARD OF SUPERVISORS

July 21, 2020



# Safety



We appreciate your participation during this challenging time and hope the following information is helpful in understanding how PG&E is working to reduce wildfire risk.



## 1 REDUCE WILDFIRE IGNITION POTENTIAL

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



## 3 REDUCE IMPACT OF PSPS EVENTS

- Reduce impacted customers
- Reduce duration
- Reduce frequency
- Improve coordination with and support communities and customers



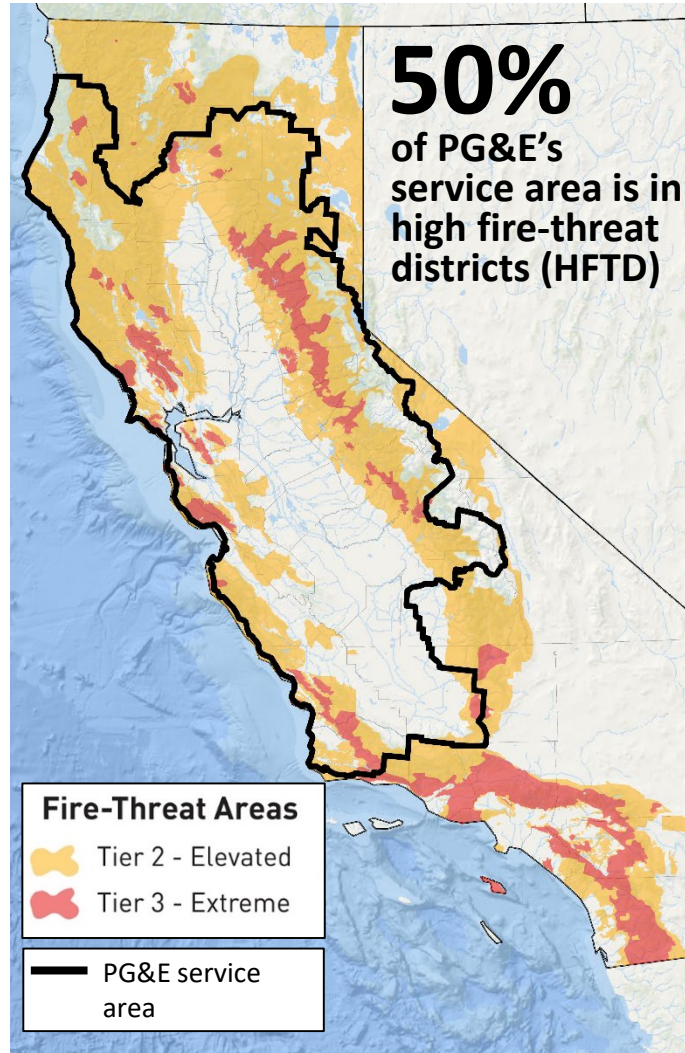
## 2 IMPROVE SITUATIONAL AWARENESS

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





# Wildfire Risks Across PG&E's Service Area



Source: California Public Utilities Commission

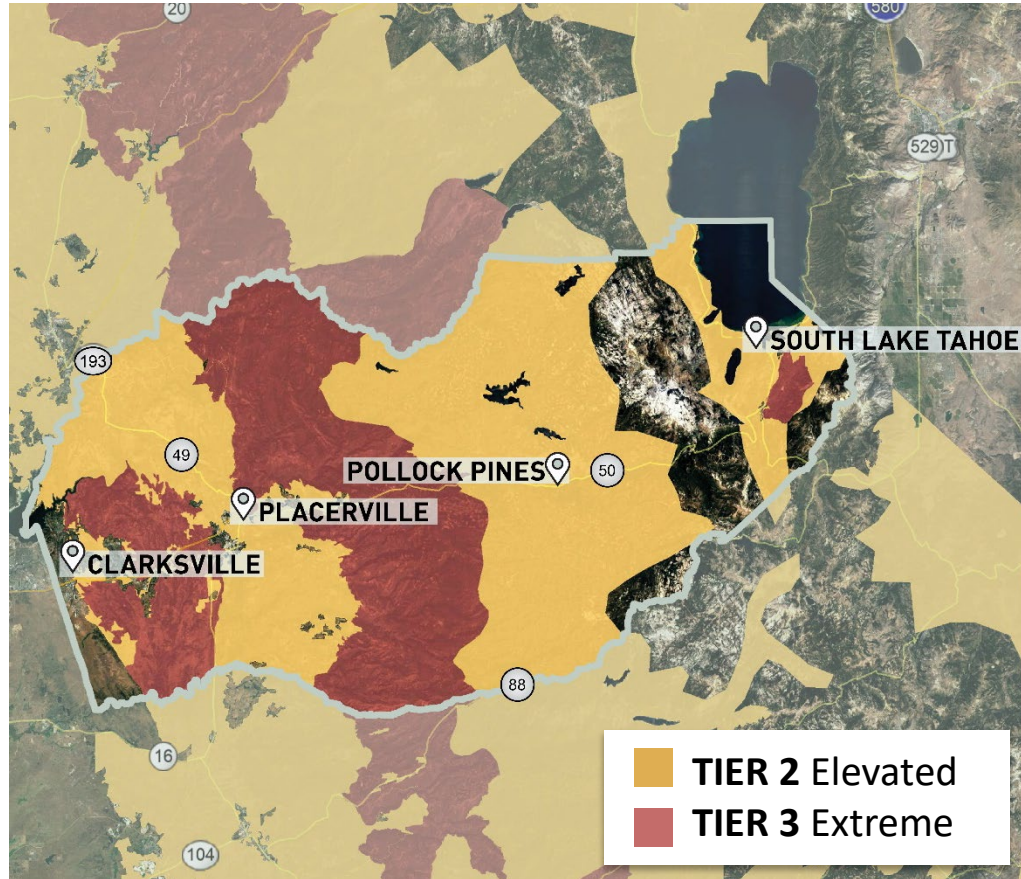
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Some of the measures included in this presentation are contemplated as additional precautionary measures intended to further reduce the risk of wildfires.

	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  
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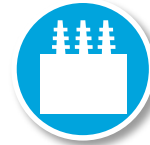
## CPUC High Fire-Threat District (HFTD) Map El Dorado County



**2,303** total overhead distribution miles  
1,103 in Tier 2 | 995 in Tier 3 | **91%** in HFTD



**125** total overhead transmission miles  
52 in Tier 2 | 45 in Tier 3 | **78%** in HFTD



**7** total substations



**74,900** total customers served  
42,200 (**56%**) Customers in HFTD



**3,500** total Medical Baseline Customers



**400** total critical facilities



# Wildfire Safety Progress – El Dorado County

## WILDFIRE SAFETY AND CUSTOMER SUPPORT PROGRAM EFFORTS



**2019  
COMPLETE**



**2020  
TARGET**

<b>Weather Stations</b> Enhancing weather forecasting and modeling	<b>29</b> STATIONS	<b>2+</b> IN PROGRESS*
<b>High-Definition Cameras</b> Improving real-time monitoring of high-risk areas and conditions	<b>3</b> CAMERAS	<b>4+</b> IN PROGRESS*
<b>Community Resource Centers</b> Provide basic power needs and up-to-date information	<b>6</b> EXECUTED	<b>IN PROGRESS</b>
<b>Sectionalizing Devices</b> Separating the grid into small sections for operational flexibility	<b>6</b> DEVICES	<b>21</b> DEVICES
<b>System Hardening</b> Stronger poles, covered lines and/or targeted undergrounding	<b>16</b> LINE MILES	<b>38</b> LINE MILES
<b>Temporary Microgrids</b> Safely energize customers during a PSPS event	<b>1</b> EXECUTED	<b>1</b> POSSIBLE
<b>Enhanced Vegetation Management</b> Inspecting, pruning and removing vegetation	<b>12</b> LINE MILES	<b>197</b> LINE MILES

\*Locations identified on a monthly basis

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# Weather Stations



To sign up for daily email alerts regarding PSPS potential, visit [cloud.em.pge.com/PSPS-7day-Signup](https://cloud.em.pge.com/PSPS-7day-Signup).

**We're installing real-time tools** to better understand how severe weather can impact our system and proactively respond to potential threats.

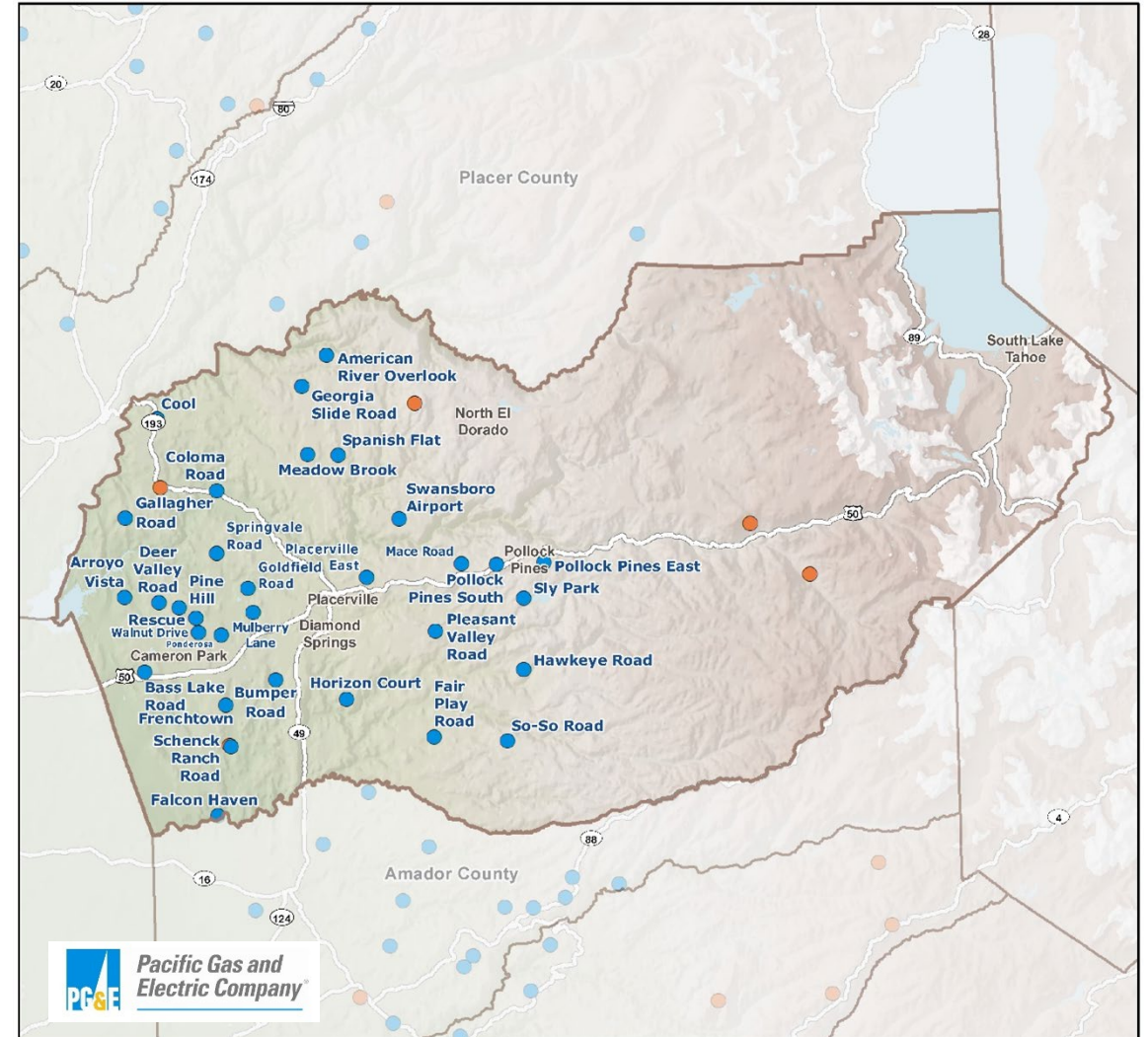
Targeting **one station roughly every 20 circuit-miles** in high fire-threat areas by 2022.

# 31

## Weather stations installed to date

### 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](https://pge.com/weather) and [mesowest.utah.edu](https://mesowest.utah.edu)

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

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

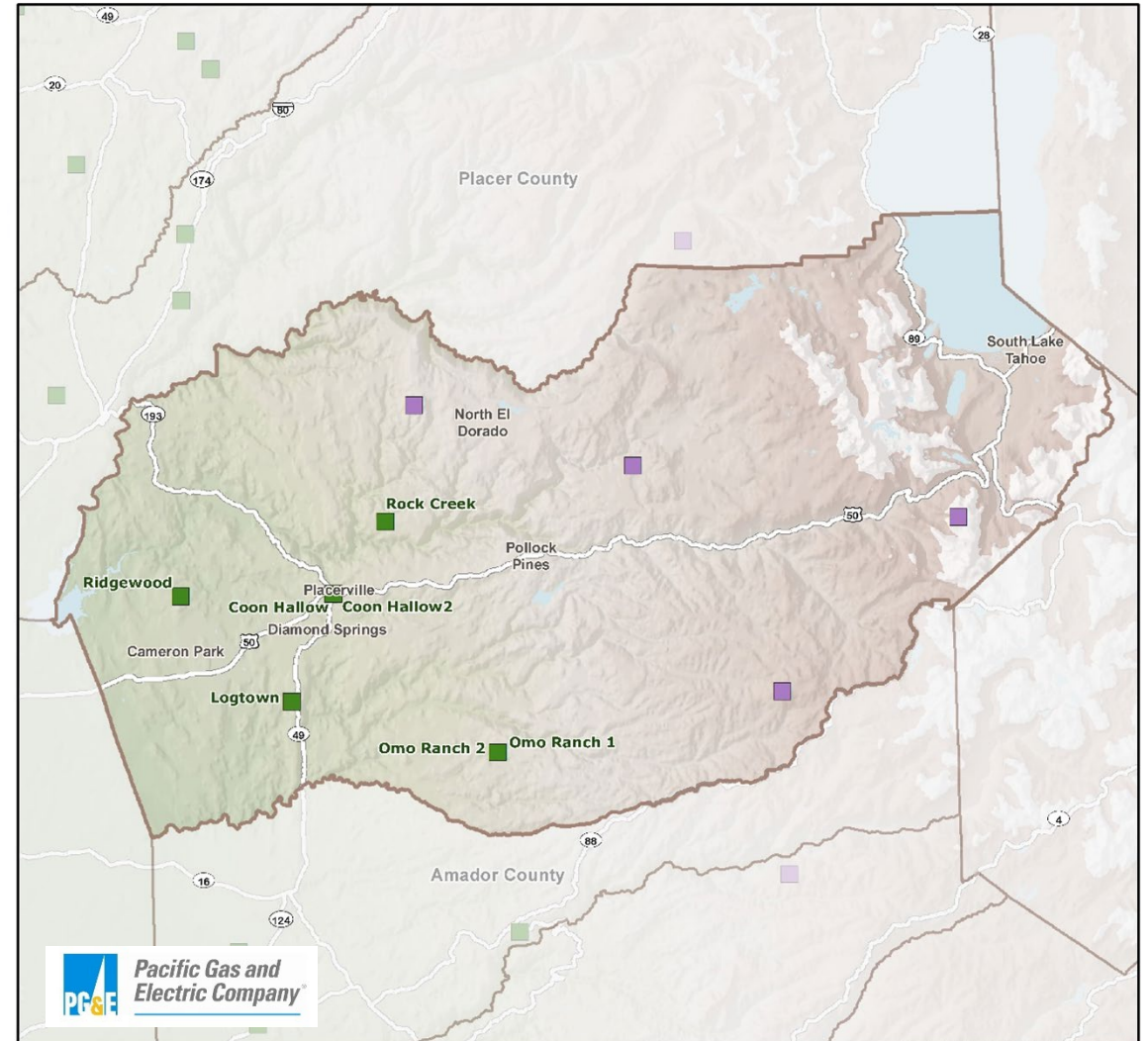
**7\***

**Cameras installed to date**

**MAP LEGEND:**

- PG&E HD Camera installed
- Non-PG&E Camera that looks into PG&E's service area

**\*Two cameras overlap on Omo Ranch and two overlap on Coon Hollow**



Images are publicly available at [pge.com/weather](http://pge.com/weather) and [alertwildfire.org](http://alertwildfire.org)

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



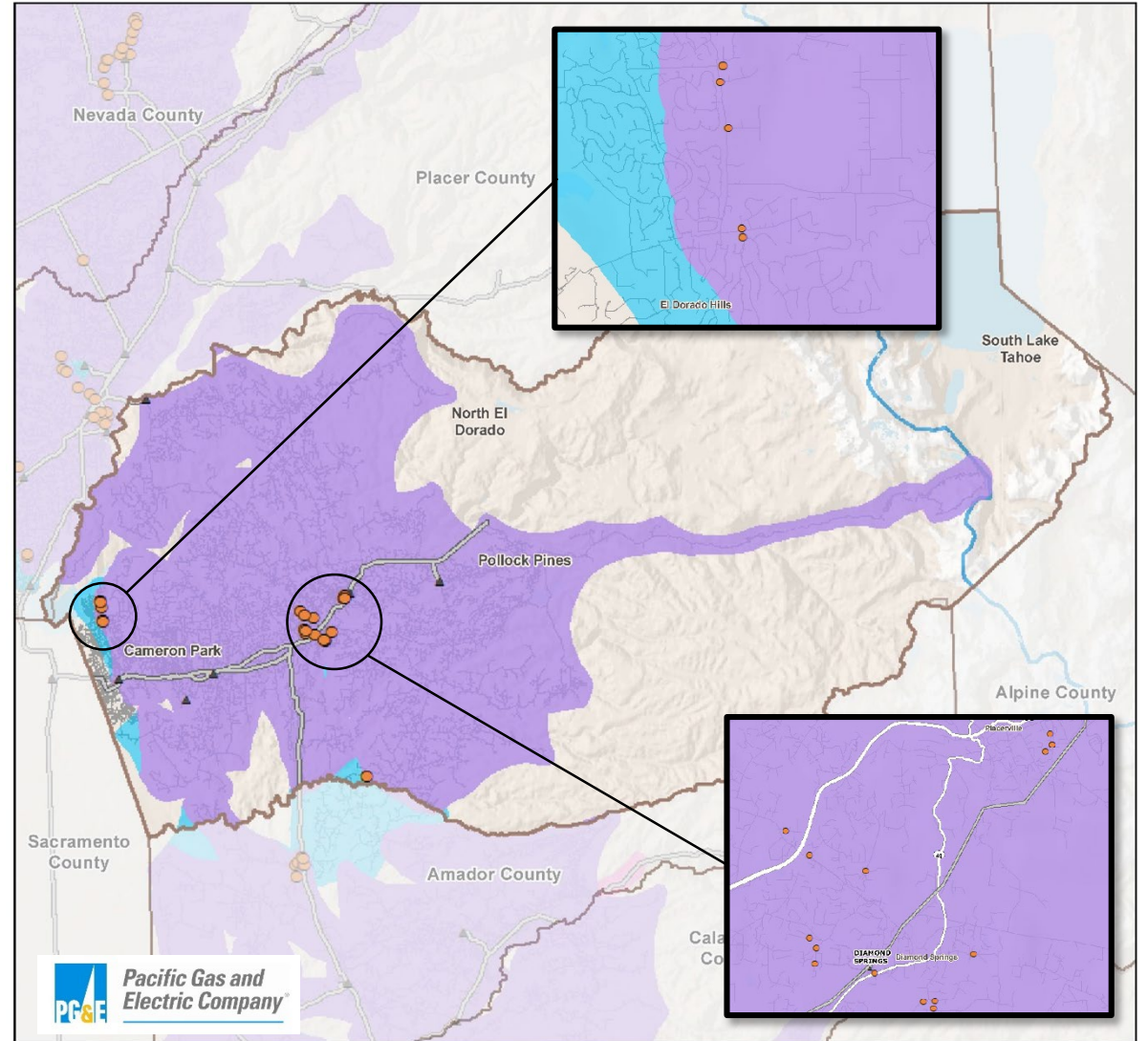
**We're installing new sectionalizing devices to limit the number of customers impacted during a PSPS event.**

**2020 TARGET 21 DEVICES**

### MAP LEGEND:

- Distribution sectionalizing devices planned for 2020
- 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. Some data points may overlap.



## Our system hardening work involves:

- **Installing stronger and more resilient poles** that will be set deeper in the ground to better withstand high winds.
- **Re-framing poles** to increase the separation of the conductors.
- **Replacing bare conductors** with larger, covered conductors.
- **Installing more poles than previously needed** to support the weight of the covered conductor and to meet new utility standards.
- **No longer using trees** to support PG&E infrastructure.
- **Adding down guys and anchors** to some poles to prevent leaning or falling.
- **Targeted undergrounding** of select overhead lines.



**2019  
COMPLETE**



**2020  
TARGET**

**16**  
LINE MILES

**38**  
LINE MILES

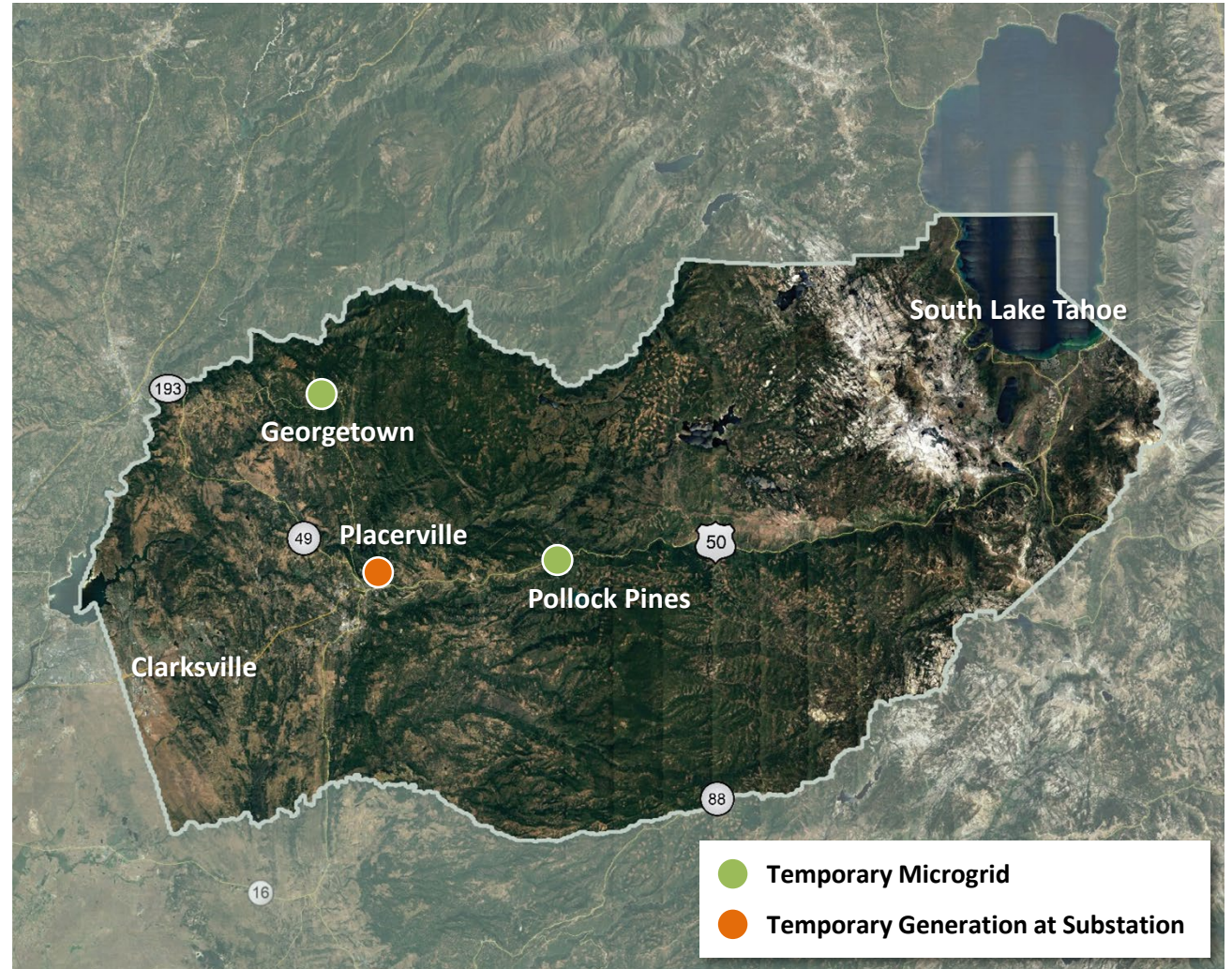


We are working to lessen PSPS impacts through establishing additional temporary microgrids that can utilize backup generation sources to keep portions of communities energized.

In 2020, PG&E will have a portfolio of temporary generation assets that will support some of these microgrid locations across our service area.

**70+** sites currently being considered across PG&E's service area

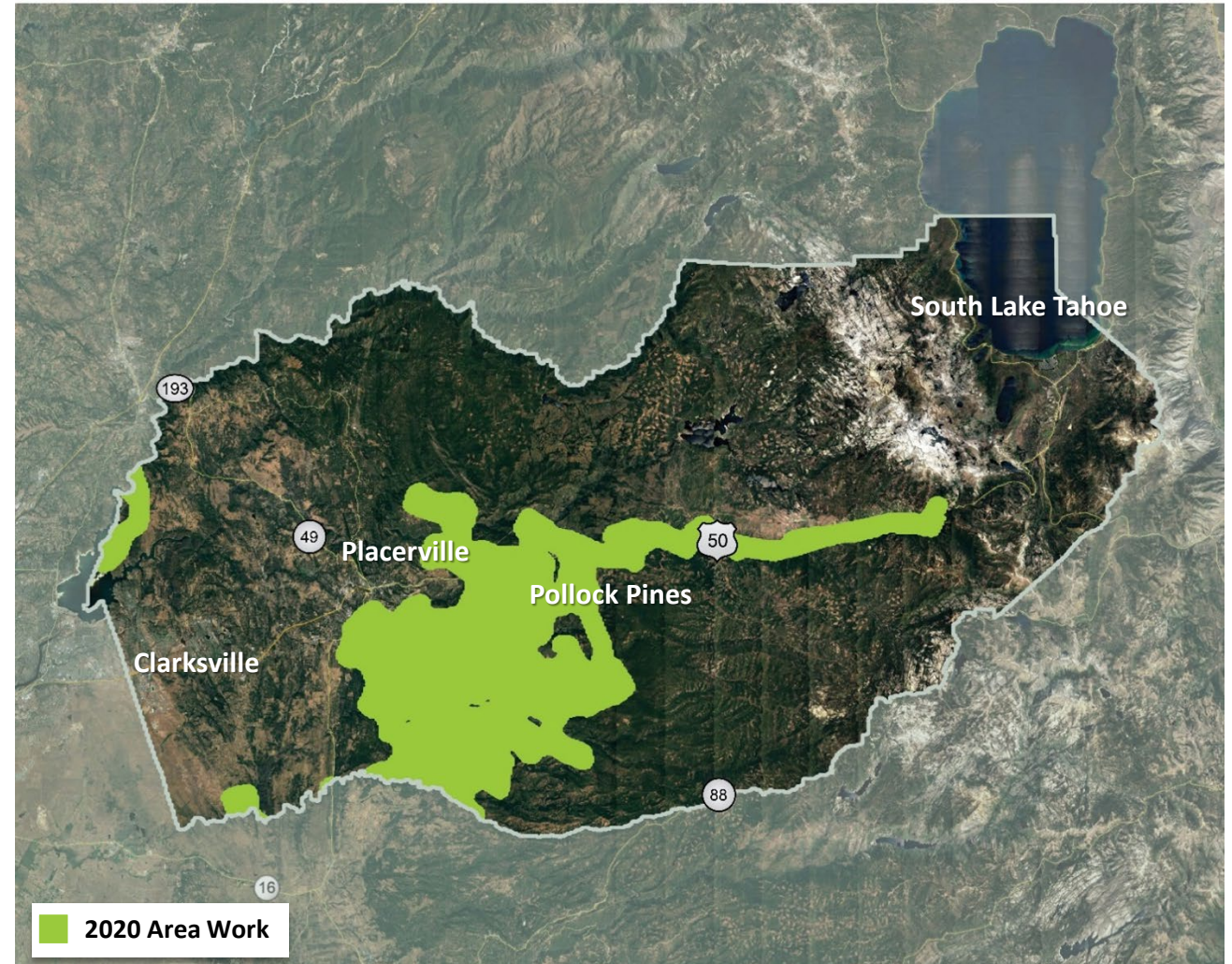
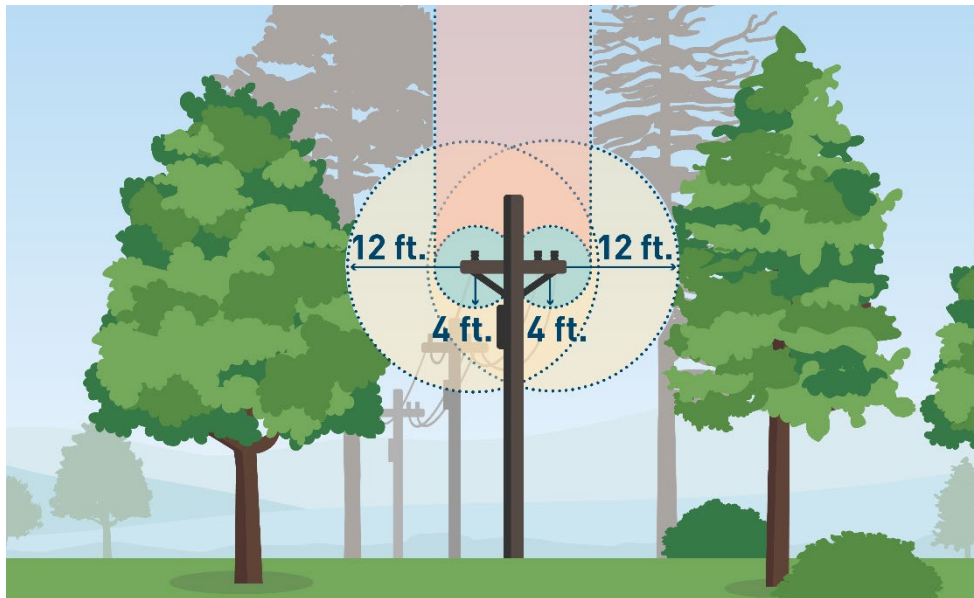
The ability to energize these substations with temporary generation during a PSPS event will be subject to operational constraints, the specific circumstances of each event, and the available supply of temporary generation.



# Enhanced Vegetation 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 197 LINE MILES**



\*Work plan is subject to change due to weather, access or other schedule constraints.

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# Public Safety Power Shutoff



## Overview



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



With more than **half of the area where our customers live and work now at high risk for wildfires**, a PSPS is 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.



In 2020, our work is focused on improving 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 impacted by PSPS events by one-third compared to 2019



## SHORTER IN LENGTH

Restore customers twice as fast after severe weather has passed



## SMARTER FOR CUSTOMERS

Provide **more accurate/timely communications** and additional resources

Deliver **more assistance for customers** before, during and after a PSPS event



## SMALLER IN SIZE

### GOAL:

**Reduce the number of customers impacted by PSPS events by one-third compared to 2019**

### WHAT WE'RE DOING:

- Installing **sectionalizing devices**
- Developing **microgrids**
- Conducting **targeted undergrounding**





## SHORTER IN LENGTH

### GOAL:

**Restore customers twice as fast** after severe weather has passed

### WHAT WE'RE DOING:

- **Adding more PG&E crews**
- **Expanding helicopter fleet from 35 to 65** and commissioning **two new airplanes** for aerial line inspections
- Utilizing **infrared equipment** to inspect at night



## SMARTER FOR CUSTOMERS

### GOALS:

Provide **more timely communications** and additional resources

- **AND** -

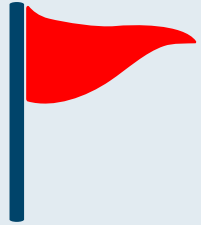
**Deliver more assistance** before, during and after a PSPS event

### WHAT WE'RE DOING:

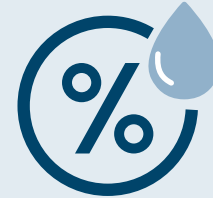
- Enhancing **meteorology technology**
  - Bolstering **website capacity**
  - Improving **customer alerts** and notifications
  - Upgrading **Community Resource Centers**
  - **Improving coordination** with local agencies and critical service providers
- 
- Working with the **California Foundation for Independent Living Centers (CFILC)** and **Community-Based Organizations (CBOs)**
  - Making it **easier for eligible customers to join and stay on the Medical Baseline program**
  - Expanding **in-language communications**

# What Weather Could Lead To A PSPS?

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



# Advance PSPS Alerts 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 the power will be shut off and restored.

## Timing of Notifications (when possible)



Notifications will provide an estimated window of time when the power will be shut off and restored.



### Direct Customer Notifications

We will attempt to reach customers through **calls, texts and emails.**



### Additional Updates

We will also use **social media** and keep **local news and radio outlets** informed and updated.

Once PG&E’s Emergency Operations Center (EOC) is activated, we will provide information through the following:



### Operational Areas Cooperators Call

- Hosted twice-daily by Agency Representatives with each impacted county and tribe.
- Event-specific information changes will be reviewed.
- Opportunity to resolve local issues and ask questions.



### Systemwide Cooperators Call

- Hosted once-daily by the EOC.
- Provide the latest high-level updates (inform only).
- Local and tribal agencies within the service area are welcome to join the call, as well as other public safety partners (i.e., telecom, water providers, transportation agencies, CCAs, etc.).



### Event-Specific Information








- Up-to-date information will be provided twice-daily at regular intervals.
- Information provided will include counties and tribes in scope, estimated time of de-energization, estimated time of restoration, number of Medical Baseline Customers and number and types of critical facilities in scope.

**When possible, we will strive to provide timely information to emergency service agencies in advance of notifying customers.**

# Critical Facility Customers

PG&E provides certain critical facility customers\* with **advanced communication** (where possible), **prioritized restoration** and **other resources** in advance of and/or **during planned outages (e.g., Public Safety Power Shutoffs)** and **unplanned outages (e.g., winter storms)**.

## Facilities Identified As Critical Include:

-  **Emergency Services Sector** (Police, Fire, Emergency)
-  **Government Facilities Sector** (Schools, Jails, Prisons)
-  **Healthcare and Public Health Sector** (Health Departments, Medical Facilities)
-  **Energy Sector** (Public/Private Utility Facilities)
-  **Water and Wastewater Systems Sector** (Water/Wastewater Facilities)
-  **Communications Sector** (Communication Infrastructure)
-  **Chemical Sector** (Chemical Manufacturing, Maintenance or Distribution Facilities)

Additionally, PG&E also considers **major local and national public transportation centers** (e.g., BART, ferries and airports) as critical facility customers which means they also receive this additional support.

## Critical Facility Identification & Agency Outreach

- PG&E has an existing process that identifies critical facility customers based on the criteria referenced above.
- We are providing cities, counties and tribal governments with a list of all critical facility customers within their jurisdiction through our secure PSPS portal (excluding commercially sensitive customer data, including telecommunication facilities). Agencies are encouraged to review and provide feedback to this existing list in alignment with CPUC criteria.

\*As defined by the California Public Utilities Commission in Public Safety Power Shutoff Decision 19-05-042.

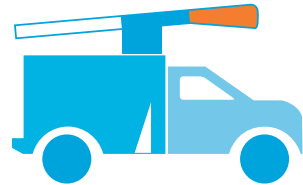


# How Is PG&E Improving Restoration Times?

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



WEATHER  
ALL CLEAR



PATROL &  
INSPECT



ISOLATE &  
REPAIR DAMAGE



RESTORE  
POWER



NOTIFY  
CUSTOMERS

After severe weather has passed, crews begin inspections

Crews visually inspect for damage by **vehicle, foot and air**

Crews **isolate and fix damage**

The **PG&E Control Center** restores power to customers

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

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

# Customer Resources





# Community Resource Centers (CRCs)

During a PSPS event, PG&E will open CRCs where community members can access a safe location with 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 toilets and hand washing stations	 Security personnel	 Chairs and tables

During a PSPS event, the locations will be made available on [pge.com/pspsupdates](https://www.pge.com/pspsupdates) and via social media, local news and radio.

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## COVID-19



PG&E is adapting our approach to CRCs to reflect appropriate COVID-19 public health considerations. We are planning to offer micro CRCs (smaller, open air tents) and mobile CRCs (vans) to supplement hardened CRCs if shelter-at-home and physical distancing requirements are in place during PSPS events.

Employees staffing CRC sites will take all necessary precautions:

-  Wearing personal protective equipment including facial coverings
-  Metering attendance to maintain physical distancing
-  Regularly sanitizing surfaces

# Additional Support For People With Disabilities And Older Adults

**PG&E is working with the California Foundation for Independent Living Centers (CFILC) to fund resources to help prepare for disasters and extended power outages.**



Resources include:	
	Portable backup power
	Emergency preparedness assistance
	Accessible transportation
	Hotel vouchers and food stipends
	Medical Baseline application assistance



**Application Process:** The CFILC will determine who qualifies for resources. Medical needs and income will be taken into account.

Applications are available online or at Independent Living Centers (ILCs) and will be accepted at regional ILC locations.

[cfilc.org](http://cfilc.org)

[disabilitydisasteraccess.org](http://disabilitydisasteraccess.org)



**PSPS event specific resources for the disabled and aging population will be posted at [pge.com/afn](http://pge.com/afn).** Press releases, radio advertisements and leveraging our network of CBOs will also be used to communicate with customers who depend on power for medical and independent living needs when possible during events.

**Coordination of resources takes time.** Individuals are encouraged to engage with their local ILC and plan before a PSPS event is imminent.

## What is Medical Baseline?

- ✓ The **Medical Baseline Program** provides **financial assistance to residential customers** that have **special energy needs** due to certain **qualifying medical conditions**.
- ✓ Eligible customers may receive a “standard” Medical Baseline quantity of **approximately 500 kilowatt-hours (kWh) of electricity and/or 25 therms of gas per month**, in addition to regular baseline quantities.

## Who Qualifies for Medical Baseline?

If a full-time resident in your home is:

- ✓ Dependent on **life-support equipment** used in the home.
- ✓ A **paraplegic, hemiplegic, quadriplegic or multiple sclerosis patient** with special heating and/or air-conditioning needs.
- ✓ A **scleroderma patient** with special heating needs.
- ✓ Being treated for a **life-threatening illness, compromised immune system or other medical condition** with **special heating and/or air-conditioning requirements** necessary to sustain the patient’s life or prevent deterioration of the patient’s medical condition.

## Applying for Medical Baseline:

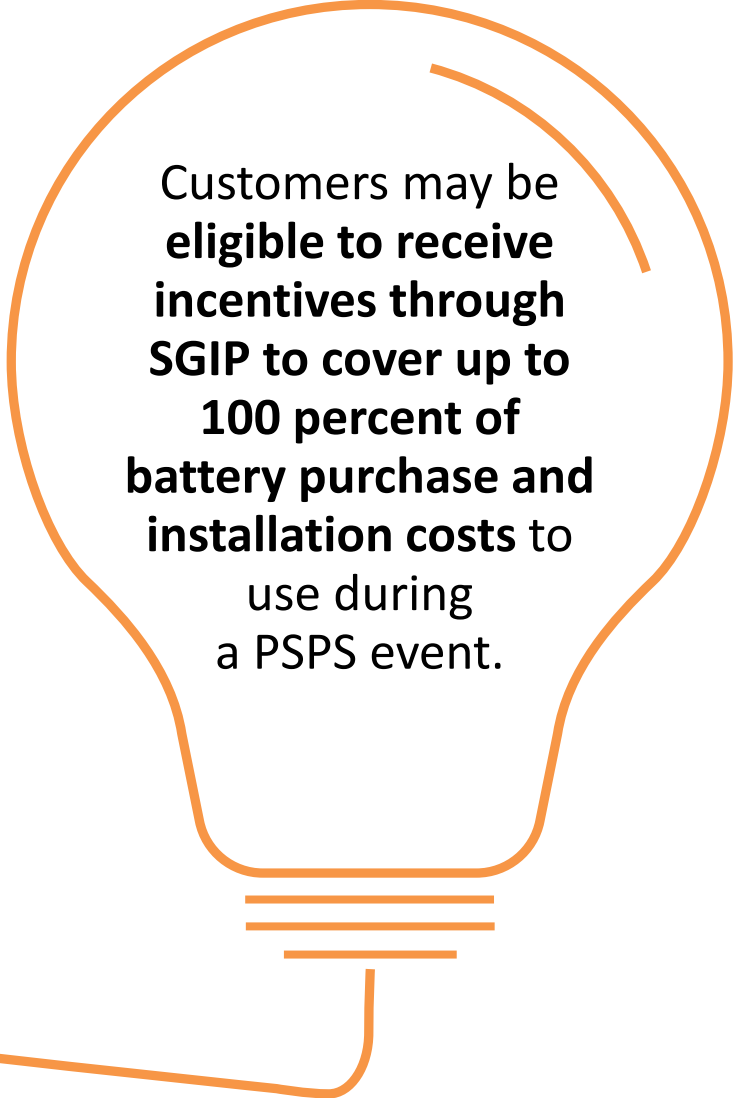
- 1** Complete the “**Medical Baseline Allowance**” application form. Forms can be found by visiting [pge.com/medicalbaseline](http://pge.com/medicalbaseline).
- 2** Mail the completed and signed application form to:

PG&E  
 Attention: Medical Baseline  
 P.O. Box 8329  
 Stockton, CA 95208



**Due to COVID-19 shelter-at-home requirements** and changing medical practitioner priorities, PG&E customers can **self-certify their eligibility to enroll in the Medical Baseline program**. Signature by a qualified medical practitioner is **not required** to apply but may be required to remain on the program beyond one year.

# Self-Generation Incentive Program (SGIP)



Customers may be **eligible to receive incentives through SGIP to cover up to 100 percent of battery purchase and installation costs** to use during a PSPS event.



Incentives for this program are available based on **income, medical needs and the likelihood of potential PSPS events** in their area.



Certain customers may be eligible to receive up to **100 percent of battery purchase and installation costs from the CPUC** if they:

- Live in a high fire-threat area
- **Are Medical Baseline customers** who rely on electricity for **critical life-sustaining equipment**
- Live in a **qualified community**
- Have experienced **multiple PSPS events**

For more information and to apply for SGIP incentives, customers are encouraged to visit [pge.com/pspsbattery](https://pge.com/pspsbattery).



# PG&E Wildfire Safety And PSPS Readiness Webinar

We invite community members to join us for an interactive webinar to learn more about wildfire safety and emergency preparedness, ask questions of PG&E subject matter experts and share their feedback.

DATE	TIME
Wednesday, August 12, 2020	5:30-7:00 p.m.
Wednesday, August 19, 2020	5:30-7:00 p.m.

Visit: [pge.com/wildfiresafety](https://pge.com/wildfiresafety)

for a full schedule of webinar events and more information.



# Where To Go For Additional Information



## STAY UP TO DATE DURING A PSPS EVENT

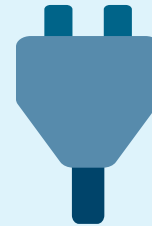
[pge.com/PSPSupdates](https://pge.com/PSPSupdates)



### 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](https://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/backuppowers](https://pge.com/backuppowers)



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



### PREPARING FOR OUTAGES

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

[prepareforpowerdown.com](https://prepareforpowerdown.com)



[prepareforpowerdown.com](https://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](https://ready.gov)

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

[readyforwildfire.org](https://readyforwildfire.org)

CAL FIRE's wildfire preparedness website

[cpuc.ca.gov/wildfiresinfo](https://cpuc.ca.gov/wildfiresinfo)

Information on the CPUC's wildfire safety efforts

[caloes.ca.gov](https://caloes.ca.gov)

California Governor's Office of Emergency Services website

[cafiresafecouncil.org](https://cafiresafecouncil.org)

California Fire Safe Council website

[noaa.gov](https://noaa.gov)

National Oceanic and Atmospheric Administration website

# Thank You

Please direct customers with questions to:

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



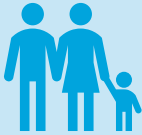




# Appendix



# 2019 PSPS Overview – El Dorado County

EVENT DETAILS	OCT 9 - 12	OCT 23 - 25	OCT 26 - NOV 1
 <b>CUSTOMERS IMPACTED</b>	~51,300	~35,500	~56,700
 <b>CRCs OPENED</b>	2	3	4
 <b>CRC VISITORS</b>	~380	~125	~2,490

**Note:** All data is subject to change based on ongoing data reconciliation.