# Community Wildfire Safety Program SAN FRANCISCO LIFELINES COUNCIL

**September 10, 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.





## **Community Wildfire Safety Program**



#### REDUCE WILDFIRE 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 impacted customers
- Reduce length
- Improve coordination with and support communities and customers



## **2020 System Improvements**

#### YEAR-TO-DATE 2020 PROGRESS RELATIVE TO 2020 GOALS (AS OF 8/26)

WEATHER STATIONS Adding additional stations to enhance weather forecasting and tracking; 860 total stations installed to date	234 STATIONS  → 400 TOTAL STATIONS BY 12/31/20 → →	<b>59%</b> installed
HIGH-DEFINITION CAMERAS Improving real-time monitoring of high-risk areas and conditions; 252 total cameras installed to date	110 CAMERAS  → 200 TOTAL CAMERAS BY 12/31/20 → →	55% installed
SECTIONALIZING DEVICES Separating the distribution grid into smaller sections for more targeted PSPS events	595 DEVICES  592 TOTAL DEVICES BY 9/1/20	101% commissioned
TRANSMISSION LINE SWITCHES Installing switches to redirect high-voltage power and keep communities energized	23 TOTAL SWITCHES BY 6/1/20	157% complete
SUBSTATION GENERATION READINESS  Readying substations for backup power and positioning temporary generation to keep customers energized	<b>59</b> SITES <b>62</b> TOTAL LOCATIONS BY 9/1/20 ————	95% ready
SYSTEM HARDENING Installing stronger poles, covered lines and/or targeted undergrounding	153 MILES  — 241 TOTAL LINE MILES BY 12/31/20 — →	63% complete
ENHANCED VEGETATION MANAGEMENT Meeting and exceeding state vegetation and safety standards	1,529 MILES  → 1,800 TOTAL LINE MILES BY 12/31/20 →	85% complete

Measures to improve infrastructure safety

Measures to reduce the impact of PSPS and wildfire risk



## **San Francisco County Overview**

#### **CPUC High Fire-Threat District Map**

San Francisco County





437 total overhead distribution miles



**0.45** total overhead transmission miles



**32** total substations



403,900 total customers served



**3,100** total Medical Baseline Customers



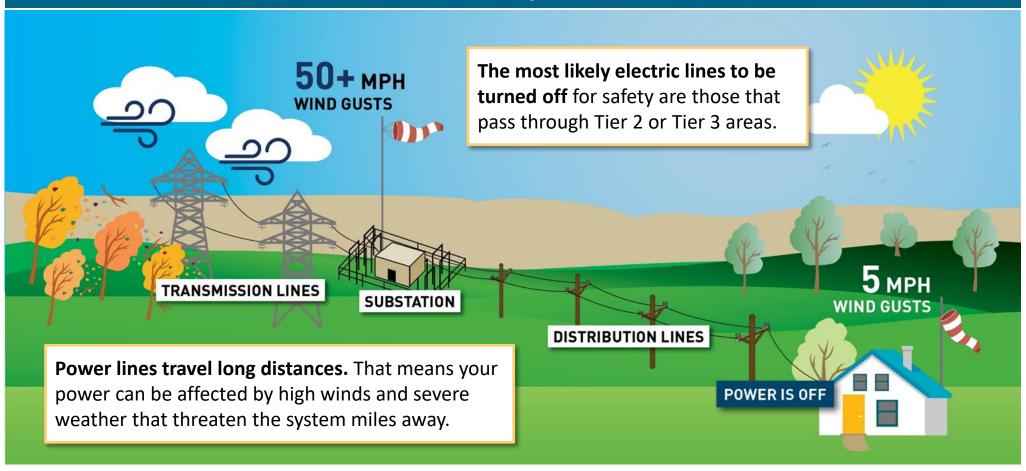
**1,000** total critical facilities



## What Is A Public Safety Power Shutoff?

We may need to turn off power during severe weather to prevent major wildfires 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** 



## **Public Safety Power Shutoff 2020 Goals**

#### **SMALLER**

## **33%** FEWER IMPACTED CUSTOMERS

- Secured over 450 megawatts of temporary generation to support substations and critical customers
- Adding ~600 sectionalizing devices and line switches to limit the size of outages
- Increased weather model resolution for more precise events

# Fewer Customers Impacted

#### **SHORTER**

## **50%** FASTER RESTORATION TIMES

- Secured 30 additional aircraft, for faster and around-the-clock patrols
- Using infrared equipment to enable night inspections
- Expanded mutual assistance program

# Faster Inspections

#### **SMARTER**

## ASSISTANCE BEFORE, DURING AND AFTER A PSPS EVENT

- Improved coordination with local agencies and critical service providers
- Improved and strengthened PSPS event website
- Enhanced customer notifications with more detailed information
- Coordinated county-specific and COVID-19 CRC plans

- Increased support for customers with Access and Functional Needs
- Using AI to improve data collection and analysis for better event management and situation reports
- Trained leadership and EOC staff in Standard Emergency Management System





## **PSPS COVID-19 Mitigations**

As COVID-19 continues, we are focused on actions that reduce the impact of Public Safety Power Shutoff events on customers and communities.

In response to COVID-19, we are taking the following actions:



Coordinating with the California Hospital Association, the Hospital Council of Northern and Southern California and directly with hospitals to ensure that ALL COVID-19 critical hospitals in high fire-threat areas can continue operating effectively during a PSPS event.



Working with county governments and local Offices of Emergency Services (OES) to ensure that current and potential future auxiliary medical facilities and temporary pandemic-care facilities will be protected from disruptive de-energization.



Updating Medical Baseline enrollment and renewal so customers can self-certify without a physician's note. Medical Baseline enrollments have increased by roughly 25,000 customers (13%) over the last three months.



Offering micro Community Resource Centers (smaller, open air tents) and mobile CRCs (vans) to supplement indoor CRCs if shelter-at-home and physical distancing requirements are in place during PSPS events.



**Using temporary generation and grid-based solutions** to support some communities and societally important facilities to limit the number of areas that we must de-energize in PSPS events.



**Updating work processes and procedures** to ensure the safety of customers and employees during essential wildfire safety work.



### **CRC Resources and COVID-19 Considerations**

Given the current COVID-19 environment, in addition to continuing to establish indoor CRCs, we are implementing outdoor contingencies including Micro and Mobile CRCs.

- Indoor and outdoor CRC locations developed in consultation with local and tribal governments.
- In PSPS events, actual deployment locations and preferred CRC type will be coordinated with local and tribal governments.
- During a PSPS event, CRC locations will be shared on pge.com/pspsupdates and via social media.
- Operating hours will be from 8:00
   a.m. to 10:00 p.m.
- CRCs will be professionally staffed rather than employee volunteers.



<sup>\*</sup>Bag contains device charger, water, snacks and info card. \*\*On-site charging for medical devices only.

<sup>\*\*\*</sup>Tables and chairs for customers charging medical devices.



## **Electric Power Supply – San Francisco County**

Transmission lines carry high-voltage electricity over long distances, like the freeways of the electric system. The higher the voltage, the more power that line is carrying.

#### **Electric Transmission Line**

√ 60 kV

115 kV

**230 kV** 

Trans Bay Cable

**PG&E Facility** 

Substation

2019 Peak Load:

**1,115** MW

Data is publicly available at: www.pge.com/wildfiremitigationplan

County Energy Commission (CEC) website: https://cecgis-caenergy.opendata.arcgis.com/



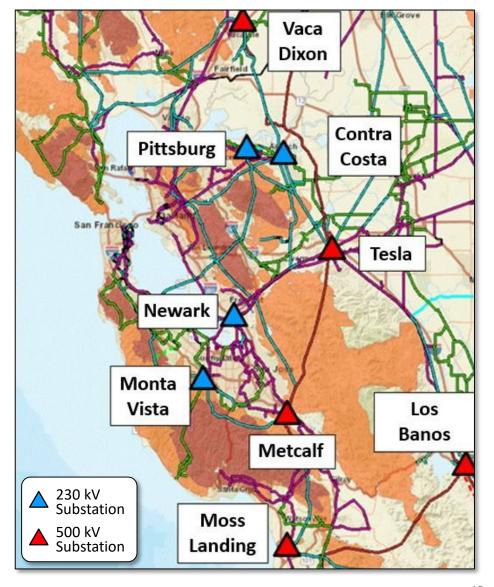


## **Greater Bay Area Electric Power Supply**

Within the greater Bay Area, there are varying and robust sources of power connected to the bulk electric system.

- Supplying from the North:
   230 kV lines from the North Bay and Geysers substations
- Supplying from the North East:
   500 kV and 230 kV lines from the Vaca, Dixon,
   Pittsburg and Contra Costa substations
- Supplying from the East:
   500 kV and 230 kV lines from the Tesla substation
- Supplying from the South:
   500 kV and 230 kV lines and generation from the
   Moss Landing substation

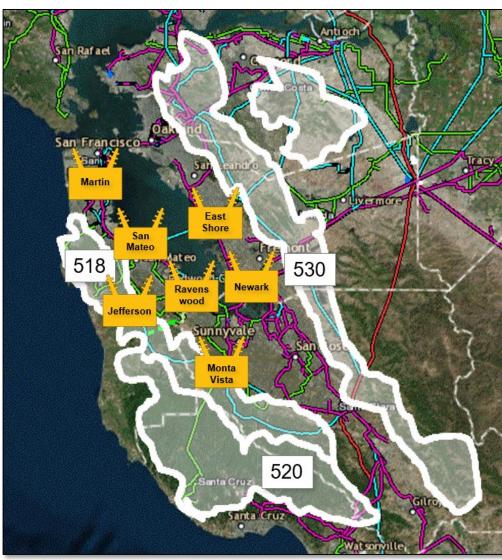
The electric power supply is an **interconnected grid**.





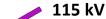
## **PG&E's Transmission System – Greater Bay Area**





#### **MAP LEGEND:**





**230 kV** 

**✓** 500 kV

Fire Index Area

Substation



## **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)



Health Care 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)



**Transportation Sector** (Major local and national public transportation centers)

We are also supporting vote tabulation centers in counties more likely to experience a PSPS event to ensure that 2020 election activities are not interrupted.

#### **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.

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

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



## **Enhanced Customer Support**

#### **Improved CRC Plans**

- Locally coordinated locations
- Expanded resources and multiple delivery models
- > COVID-19 precautions



#### **Upgraded PSPS Website**

- Increased capacity
- → ADA accessible
- > Improved maps
- > Available in 13 languages



#### **Expanded Customer Outreach**

- → 16 Customer Webinars (~3,800 attendees)
- > 12 Postcards/Mailers/Brochures
- **24** Customer Emails
- 308M average monthly advertising impressions (July/Aug.)



### **Critical Customer Support**

- Ongoing critical customer list updates in coordination with counties
- > Support for COVID-19 essential hospitals in high fire-risk areas
- Ongoing engagement with telecommunications providers (including multiple notification tests)
- Listening sessions and webinars with large customers and critical service providers
- > Resiliency plans for vote tabulation centers



#### **Enhanced Customer Notifications**

Detailed info up to 2 days in advance (including restoration times and links to customer resources)

- 2 DAYS BEFORE power is turned off
- **1 DAY BEFORE** power is turned off
- JUST BEFORE power is turned off
- **DURING** the PSPS event (weather all clear and ETOR)
- ONCE power is restored





## **Advance PSPS Notifications**

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)



before power is turned off

1 day

before power is turned off



power is turned off



the PSPS event



power has been restored



## PG&E ACCOUNT HOLDERS

We will send customers notifications through automated calls, texts and emails.

**Updating contact information** is encouraged.

CALL: 866-743-6589

pge.com/mywildfirealerts



## ZIP CODE ALERTS

Non-PG&E account holders can receive event notifications by ZIP Code through automated calls, texts and emails.

**CALL: 877-9000-PGE** 

**TEXT: ENROLL to 97633** 

pge.com/pspszipcodealerts



#### MEDIA AND SOCIAL MEDIA

We will keep local news, radio outlets and social media outlets informed and updated.









pge.com/pspsupdates



## BUSINESSES AND MASTER METER

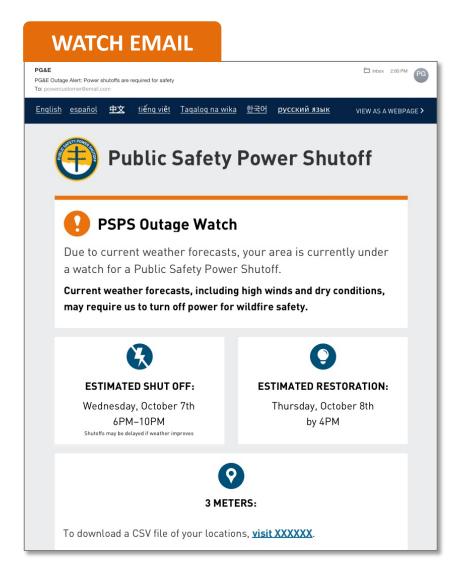
We encourage businesses and master meter account holders to create a regularly-updated contact roster and share PSPS notifications with their contacts when they are received.

pge.com/beprepared





## "PSPS Watch" Customer Notifications Scripts



#### **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.

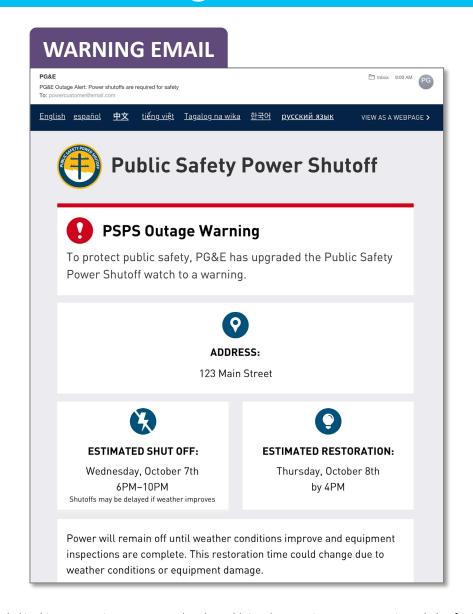
If this is not the correct phone number for 1234 EL ANYWHERE COURT , press 2.

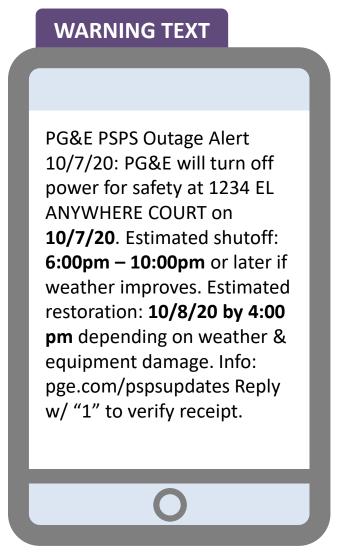
Press # to repeat this message.

Thank you. Goodbye.



## "PSPS Warning" Notifications Scripts – General Customers







## **Website Improvements**

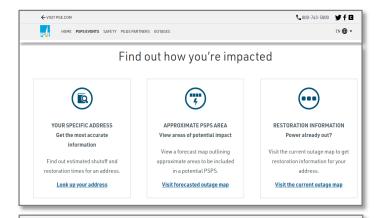


We immediately upgraded our website to serve higher levels of traffic during a PSPS event following the October 2019 PSPS event and website failure.

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



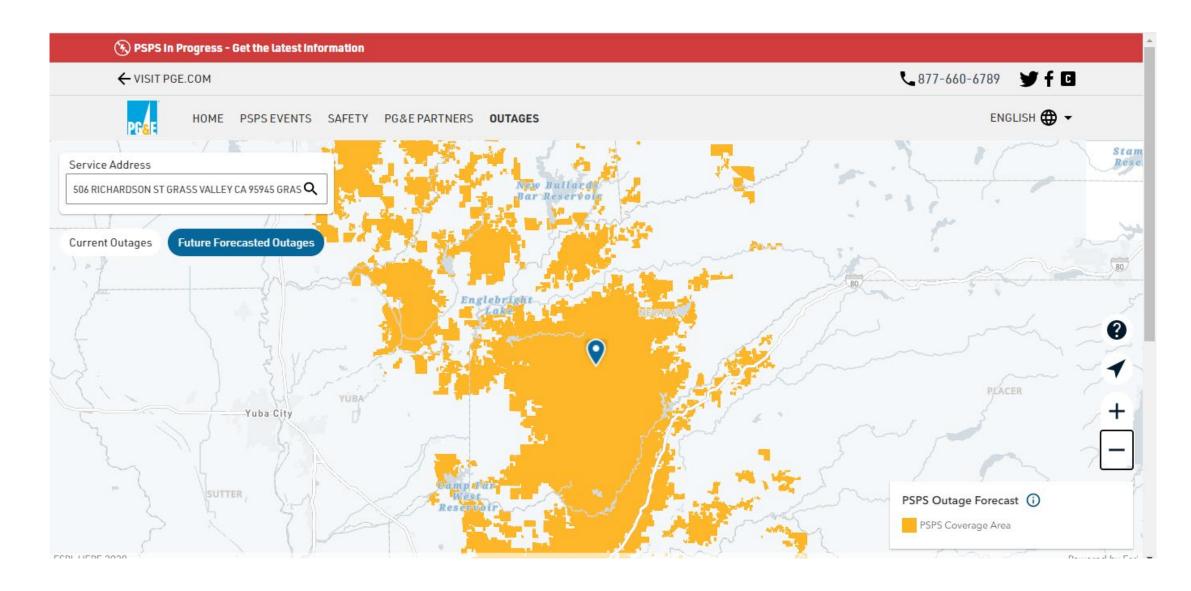
- Automatically redirecting traffic from pge.com to an alert site when an event is active
- Developing an "all-in-one" map that includes both PSPS planned outages and actual outages
- Developing lower bandwidth options to serve smart phone users
- Simpler language and layouts
- Faster upload of information
- Fully multilingual-translated content with ADA accessibility







## Sample Customer Outage Map





## **Support For Disabled And Aging Populations**

# Community-Based Organizations (CBOs)

- Set up partnerships with ~250
   Community-Based
   Organizations to expand
   communications reach
- Established councils to engage and solicit feedback from community leaders
- Expanded resource partnerships



# Medical Baseline Customers

- Expanded Medical Baseline
   Program to provide additional
   communications benefits
- Responding to COVID-19, eased process for enrolling and recertification
- Conducted extensive outreach to encourage potentially eligible to enroll



# California Foundation for Independent Living (CFILC)

- Working with the 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





### **In-Event Communications**

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



#### **System-wide 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 facilitates in scope.

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



## **2020 PSPS Portal Improvements**

We heard loud and clear the feedback that we needed to improve our PSPS Portal. In 2020, our PSPS Portal will provide more accurate and timely information to more of our partners.

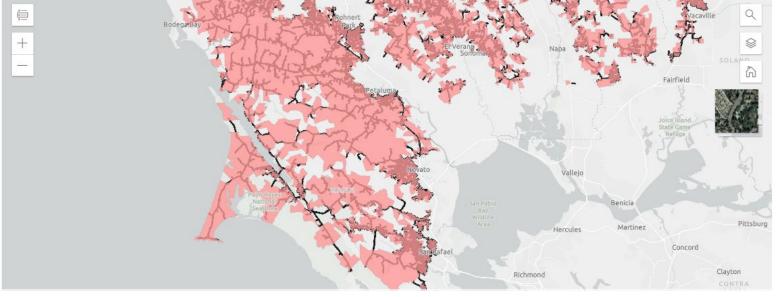
#### **2020 IMPROVEMENTS**

- Expanding access to hospitals, publicly owned utilities, telecommunication providers, transportation providers and water agencies
- Providing a live, interactive map that shows PSPS outages down to individual addresses
- Providing circuit-level maps
- Updating information as the event progresses
- Enabling access to information via secure mobile and desktop devices



#### SAMPLE PUBLIC SAFETY PARTNER MAP







### **Restoration Resources**

# We will take the following steps to restore power to customers faster:



Nearly doubling our exclusive-use helicopter fleet from 35 to 65



Using two airplanes with infrared cameras capable of inspecting transmission lines at night



Deploying more PG&E crews and contractors



Expanding mutual assistance support from other utility companies



# **Customer Resources**





## **Other Safety-Related Outages**

### PG&E customers may experience unplanned outages for different safety reasons.

	Rotating Outages	<b>Emergency Repairs</b>	Active Wildfires	<b>Public Safety Power Shutoff</b>
Why Power is Shut Off?	The state's grid operator, the California Independent System Operator (CAISO), determines there is insufficient energy supply vs customer demand, generally due to statewide extreme heat events.	Electric equipment may be damaged by extreme heat, lightning or other damage. Lines are de- energized while crews safely make repairs.	CAL FIRE or other fire agencies request a shutoff during an active wildfire for the safety of the public or first responders.  Wildfires can also burn into and damage electric equipment.	Power is shut off for public safety during severe weather that includes a high fire risk:  Strong winds Dry vegetation Low humidity Crew observations
How Will We Inform Customers?	Where possible, advanced notification / Updates during outages  Phone calls* Emails Texts Social media News releases Local/Tribal gov outreach	Updates after or during outages  Phone calls Texts Emails	<ul> <li>Updates after or during outages</li> <li>Phone calls</li> <li>Texts</li> <li>Emails</li> </ul>	Advanced notification / Updates during outages Phone calls* Emails Texts Social media News releases Local/Tribal government outreach CBO** outreach
Who Makes the Decision?	CAISO, the state's grid operator	No single party or agency. Damage can impact the system at any time.	CAL FIRE or first responder agencies	PG&E

<sup>\*</sup>Via interactive voice recordings (IVRs)

<sup>\*\*</sup>Community-based organization



## **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.



disabilitydisasteraccess.org



In an effort to support customers who depend on power for medical and independent living needs, we will:

- Provide **PSPS event specific resources at pge.com/afn**
- Publish press releases and air radio advertisements
- Leverage our network of CBOs

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



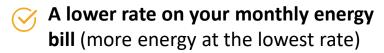
## **Medical Baseline Program**



PG&E's Medical Baseline Program is an **assistance program for residential customers who rely on power** for certain medical conditions.

Customers will be considered based on medical conditions or needs, NOT on income.

#### The program includes two different kinds of help:





**Extra notifications in advance** of a Public Safety Power Shutoff (PSPS)

#### **Medical Baseline qualifications:**

- Opendency on life-support equipment at home
- Paraplegic, hemiplegic or quadriplegic condition
- Multiple sclerosis with special heating and/or cooling needs

- Scleroderma with special heating needs
- Life-threatening illness or compromised immune system, and special heating and/or cooling are needed to sustain life or prevent medical deterioration

Note: the customer must be a full-time resident of the home to qualify

#### **Applying for Medical Baseline**



Complete the "Medical Baseline Allowance" application form.
Forms can be found by visiting

pge.com/medicalbaseline



Mail the completed and signed application form to:

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



**Due to novel coronavirus (COVID-19) shelter-at-home guidelines** and changing medical practitioner priorities, customers can now **self-certify their eligibility to enroll in the Medical Baseline Program**. A signature from a qualified medical practitioner is **not required** to apply but may be requested to remain in the program beyond one year.



## 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.

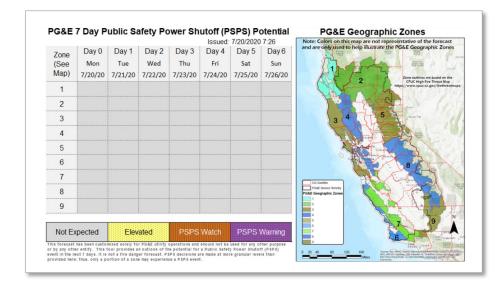
The 7-day PSPS potential forecast is **updated daily** by PG&E's **meteorology team**.

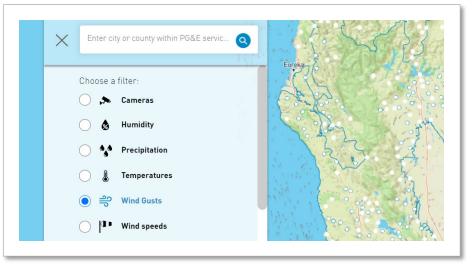
PG&E's weather webpage also offers an **interactive** weather map updated in real time using information from weather stations and cameras throughout PG&E's service territory.



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

pge.com/weather







## Where To Go For Additional Information



## **PG&E'S WILDFIRE SAFETY WEBSITE**

pge.com/wildfiresafety





#### 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.







#### **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





#### MEDICAL BASELINE PROGRAM

Learn more about PG&E's Medical Baseline Program for those who rely on power for medical devices.

pge.com/medicalbaseline





STAY UP TO DATE DURING A PSPS

pge.com/pspsupdates





## **Preparedness Resources**



#### 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**

Please direct customers with questions to:

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



# **Additional Information**

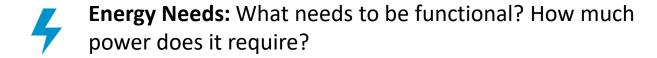




## **Backup Power**

Backup power can keep the lights on, save perishable food, help appliances stay running, and power essential equipment and devices during a power outage.

#### **FACTORS TO CONSIDER:**



- **Cost:** Examine which backup power option fits your budget.
- Noise: Are there ordinances in the area that restrict or limit the decibel level allowance?
- **Fuel Preferences:** Consider environmental concerns, accessibility, affordability and available storage space.

Operating a backup generator may be subject to **air quality regulations**. For information, visit **arb.ca.gov/app/dislookup/dislookup.php**.

# BACKUP POWER RESOURCES

- Emergency checklists and planning fact sheets
- Installation and operation instructions
- Financing options
- Online marketplace

pge.com/backuppower



## **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.



## **Safety Action Center**

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:

- ips on how to create an emergency plan
- **Emergency preparedness** guides and videos
- Links to the statewide Power of BeingPrepared 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?







safetyactioncenter.pge.com