Community Wildfire Safety Program
San Mateo and Santa Clara Counties

June 3, 2020
We know that everyone is currently focused on the response to COVID-19. 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.
Some of the measures included in this presentation are contemplated as additional precautionary measures intended to further reduce the risk of wildfires.
Your Local Electric System

What Is Public Safety Power Shutoff?

Lessons Learned and 2020 Improvements

Local Progress to Help Prevent Wildfires

Preparing for Public Safety Power Shutoffs

Open Discussion
Your Electric System In
San Mateo and Santa Clara
The California Public Utilities Commission (CPUC) has a map that designates areas that are most at risk for wildfire.

- Tier 3 areas are at extreme risk
- Tier 2 areas are at elevated risk

This map helps PG&E to plan and prioritize wildfire prevention efforts.

~50% percent of PG&E’s service area is in high fire threat districts

<table>
<thead>
<tr>
<th>County</th>
<th>TOTAL OVERHEAD DISTRIBUTION LINE MILES</th>
<th>DISTRIBUTION LINE MILES IN HFTD</th>
<th>TOTAL OVERHEAD TRANSMISSION LINE MILES</th>
<th>TRANSMISSION LINE MILES IN HFTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAN MATEO COUNTY</td>
<td>1,552</td>
<td>363</td>
<td>354</td>
<td>61</td>
</tr>
<tr>
<td>SANTA CLARA COUNTY</td>
<td>2,897</td>
<td>585</td>
<td>688</td>
<td>209</td>
</tr>
</tbody>
</table>

The map can be accessed at: cpuc.ca.gov/FireThreatMaps
What Is A Public Safety Power Shutoff?
Some of the measures included in this presentation are contemplated as additional precautionary measures intended to further reduce the risk of wildfires.

What Is A Public Safety Power Shutoff?

If severe weather threatens a portion of the electric system, it may be necessary for PG&E to turn off electricity in the interest of public safety.

The most likely electric lines to be turned off for safety are those that pass through Tier 2 or Tier 3 areas.

Power lines travel long distances. That means your power can be affected by high winds and severe weather that threaten the system miles away.
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### What Weather Could Lead To A PSPS?

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

<table>
<thead>
<tr>
<th>Factor</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A Red Flag Warning</strong></td>
<td>Declared by the National Weather Service</td>
</tr>
<tr>
<td><strong>Low Humidity Levels</strong></td>
<td>Generally 20% and below</td>
</tr>
<tr>
<td><strong>Forecasted Sustained Winds Generally Above 25 MPH and Wind Gusts in Excess of Approximately 45 MPH</strong></td>
<td>Depending on location and site-specific conditions such as temperature, terrain and local climate</td>
</tr>
<tr>
<td><strong>Condition of Dry Fuel</strong></td>
<td>On the ground and live vegetation moisture content</td>
</tr>
<tr>
<td><strong>On-the-Ground, Real-Time Observations</strong></td>
<td>From PG&amp;E’s Wildfire Safety Operations Center and field observations from PG&amp;E crews</td>
</tr>
</tbody>
</table>
How Often Will A PSPS Event Occur?

Below is an estimate of potential PSPS events in your communities based on a review of 30 years of weather data.

San Mateo County

1-2 events per year on average

Santa Clara County

1-2 events per year on average

The number of events in any particular year will be exclusively driven by the weather pattern experienced and the above historical weather analysis may not be representative of the experience in a particular year.
### How Are We Improving For This Year?

<table>
<thead>
<tr>
<th><strong>SMALLER IN SIZE</strong></th>
<th>Reduce the number of customers impacted by PSPS events by one-third compared to 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SHORTER IN DURATION</strong></td>
<td>Restore customers twice as fast after severe weather has passed</td>
</tr>
<tr>
<td><strong>SMARTER FOR CUSTOMERS</strong></td>
<td>Provide more accurate/timely communications and additional resources</td>
</tr>
<tr>
<td></td>
<td>Deliver more assistance for customers before, during and after a PSPS event</td>
</tr>
</tbody>
</table>

Some of the measures included in this presentation are contemplated as additional precautionary measures intended to further reduce the risk of wildfires.
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**How Are We Improving For This Year?**

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

**WHAT WE’RE DOING:**
- Installing **sectionalizing devices** on the transmission and distribution systems capable of re-directing power and limiting the size of outages
- Developing **microgrids** that use generators to keep the lights on
- Conducting **targeted undergrounding** as part of system hardening

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How Are We Improving For This Year?

SHORTER IN DURATION

GOAL: Restore customers twice as fast after severe weather has passed

WHAT WE’RE DOING:
- Adding more field crews to speed inspection of lines
- Expanding helicopter fleet from 35 to 65 for aerial line inspections
- Commissioning two new airplanes for aerial line inspections
- Utilizing infrared equipment to inspect at night
Some of the measures included in this presentation are contemplated as additional precautionary measures intended to further reduce the risk of wildfires.

How Are We Improving For This Year?

SMARTER FOR CUSTOMERS

GOALS:
Provide more accurate/timely communications and additional resources
- AND -
Deliver more assistance before, during and after a PSPS event

WHAT WE’RE DOING:

- Enhancing meteorology technology to pinpoint location and timing of severe weather
- 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 other Community Based Organizations to support vulnerable customers
- Making it easier for eligible customers to join and stay in the Medical Baseline program
- Expanding in-language communications
Local Progress To Help Prevent Wildfires
All data is preliminary and based on early 2020 work planning. Data as of April 2020.

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**Advanced Weather Station Network**

*We’re adding advanced weather stations* to better understand how severe weather can impact our system and proactively respond to potential threats.

Data is publicly available at

- [mesowest.utah.edu](mesowest.utah.edu)
- [pge.com/weather](pge.com/weather)

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**SAN MATEO COUNTY**

- **7** PG&E Stations

**SANTA CLARA COUNTY**

- **18** PG&E Stations

**Remote Automated Weather Stations (RAWS)** within PG&E’s service area
Sectionalizing The Electric Grid To Limit PSPS Impacts

We’re installing new sectionalizing devices that separate the grid into smaller parts to limit the number of customers impacted during a PSPS event.

We are installing 600 new sectionalizing devices this year:

- **37 devices** planned for **San Mateo County**
- **46 devices** planned for **Santa Clara County**

We are also working to add remote and/or automated capabilities to many of the devices in order to further reduce the number of customers who are impacted by a public safety power shutoff.

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Enhancing 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.

<table>
<thead>
<tr>
<th>COUNTY</th>
<th>2020 TARGET</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAN MATEO</td>
<td>14 LINE MILES</td>
</tr>
<tr>
<td>SANTA CLARA</td>
<td>8 LINE MILES</td>
</tr>
</tbody>
</table>

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

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Preparing For Public Safety Power Shutoffs
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 shutoff and restored.

Timing of Notifications (when possible)

- **2 days** before power is turned off
- **1 day** before power is turned off
- **Just before** power is turned off
- **During** the PSPS event
- **Once** power has been restored

Notifications will provide an estimated window of time when the power will be shutoff 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.

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Community Resource Centers (CRCs)

CRCs provide customers and residents with a safe, energized, ADA accessible location with basic resources, as well as up-to-date information. The following resources may be available:

- Heating and cooling
- Power strips to charge devices
- Bottled water
- Non-perishable snacks/fruit
- 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 and via social media, local news and radio.

If social distancing measures remain in place due to COVID-19, we will be incorporating alternative solutions like mobile, popup or reconfigured CRCs.

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Additional Support for Vulnerable Customers

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.

More information is available from these ILC locations

Center for Independence of Individuals with Disabilities (CID)
(650) 645-1780
2001 Winward Way, Suite 103, San Mateo, CA 94402

CID Satellite Office
(650) 645-1780
1590 El Camino Real, Suite C, San Bruno, CA 94066

Silicon Valley Independent Living Center (SVILC)
(408) 894-9041
25 N. 14th Street, Suite 1000, San Jose, CA 95112

SVILC Satellite Office
(408) 894-9041
7881 Church Street, Suite C, Gilroy, CA 95020

To learn more, please visit:

cflic.org
disabilitydisasteraccess.org

Resources include:

- Portable backup power
- Emergency preparedness assistance
- Accessible transportation
- Hotel vouchers and food stipends

The Disaster Access and Resources Program provides qualifying customers who use electrical medical devices access backup portable batteries.

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Where To Go For Additional Information

**DO WE HAVE YOUR CURRENT CONTACT INFORMATION?**

**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.

**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.

**MEDICAL BASELINE**
Learn more about PG&E’s Medical Baseline program for those who rely on power for medical devices.

**KEEP UP TO DATE DURING A PSPS EVENT**

For more information about our Community Wildfire Safety Program, please:
- Call 1-866-743-6589
- Email wildfiresafety@pge.com
- Visit pge.com/wildfiresafety

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Appendix
### 2019 PSPS Overview

<table>
<thead>
<tr>
<th>EVENT DETAILS</th>
<th>OCT 9 - 12</th>
<th>OCT 23 - 25</th>
<th>OCT 26 - NOV 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SAN MATEO</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CUSTOMERS IMPACTED</td>
<td>~14,800</td>
<td>~1,000</td>
<td>~54,100</td>
</tr>
<tr>
<td>PEAK WIND GUSTS</td>
<td>38</td>
<td>49</td>
<td>52</td>
</tr>
<tr>
<td>DAMAGE/HAZARDS</td>
<td>5</td>
<td>2</td>
<td>28</td>
</tr>
<tr>
<td>MAX. OUTAGE LENGTH (HRS)</td>
<td>62</td>
<td>14</td>
<td>93</td>
</tr>
<tr>
<td><strong>SANTA CLARA</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CUSTOMERS IMPACTED</td>
<td>~34,600</td>
<td>-</td>
<td>~25,300</td>
</tr>
<tr>
<td>PEAK WIND GUSTS</td>
<td>36</td>
<td>-</td>
<td>47</td>
</tr>
<tr>
<td>DAMAGE/HAZARDS</td>
<td>22</td>
<td>-</td>
<td>25</td>
</tr>
<tr>
<td>MAX. OUTAGE LENGTH (HRS)</td>
<td>66</td>
<td>-</td>
<td>94</td>
</tr>
</tbody>
</table>

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

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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.

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**WEATHER ALL CLEAR**

After severe weather has passed, crews begin inspections

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**PATROL & INSPECT**

Crews visually inspect for damage by vehicle, foot and air

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**ISOLATE & REPAIR DAMAGE**

Crews isolate and fix damage

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**RESTORE POWER**

The PG&E Control Center restores power to customers

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**NOTIFY CUSTOMERS**

Customers are notified that power has been restored

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

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

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

SAN MATEO COUNTY

0
PG&E Cameras

SANTA CLARA COUNTY

8*
PG&E Cameras

PG&E HD Camera
Non-PG&E Camera that looks into PG&E’s service area
*2 cameras overlap on Carol Drive Santa Clara and Holiday Lake

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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.

50+ sites currently being considered across PG&E’s service area

1 sites considered for San Mateo County

0 sites considered for Santa Clara County

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