

Office of Emergency Services Wildfire Update

Preparing for Public Safety Power Shutoffs

June 9, 2020



Board Priority:

Provide community leadership to prepare for and minimize the impacts of Public Safety Power Shutoff (PSPS) events on residents and local businesses by providing timely and accurate public information, prioritizing and advocating for the hardening of critical public safety and telecommunications infrastructure, and assisting people with disabilities and older adults.



Objective:

Provide Nevada County with timely and accurate Public Safety Power Shutoff Information.

Performance Measures:

Maintain ongoing and timely dialogue with electric utility providers to reduce impacts of de-energizations on residents and the local economy.



Objective:

Build resilience amongst residents and infrastructure in the face of recurring Public Safety Power Shutoffs.

Performance Measures:

Prepare local residents, first responders and County decision makers through planning and education.



2019 PSPS Events

- **24 September:** 48,000 customers
- **9 October:** 43,217 customers/1,816 Medical Baseline
- **23 October:** 37,000 customers, Medical Baseline 1,630, Critical Facilities: 210
- **29 October:** 28,210 customers, Medical Baseline 1,217, Critical Facilities: 177
- **29 October:** Director of Emergency Services declared local emergency



2019 PSPS Impacts on Nevada County

- Medical concerns
- Reduced community services
- Food insecurity
- Hospital challenges
- Auxiliary power generation challenges
- Failed telecommunications in Red Flag conditions
- School closures
- Significant fiscal impacts to the business community and the County



2020 Actions to Mitigate PSPS Impacts

- Board prioritized mitigating PSPS impacts
- OES included PSPSP mitigation objective in 2020 Wildfire Evacuation Preparedness Action Plan
- Working with PG&E. Requested the following commitments:
 - Reenergize Nevada City
 - Reenergize Grass Valley
 - Enhance communications at all levels, including:
 - Organizations supporting residents with disabilities and older adults
 - Business community
 - Provide information that is accessible by all
 - Continue to support FREED with hotel, battery, and transportation support
 - Extend Community Resource Center hours, or providing overnight stays
 - Provide accessible, indoor Community Resource Centers



Community Wildfire Safety Program

NEVADA COUNTY

June 9, 2020



Safety



MEETING PURPOSE




- Share progress on important work to prevent wildfires and reduce PSPS impacts
- Co-create solutions to local issues
- Partner to prepare for PSPS events in 2020

We understand how busy your teams must be responding to COVID-19 and appreciate your time

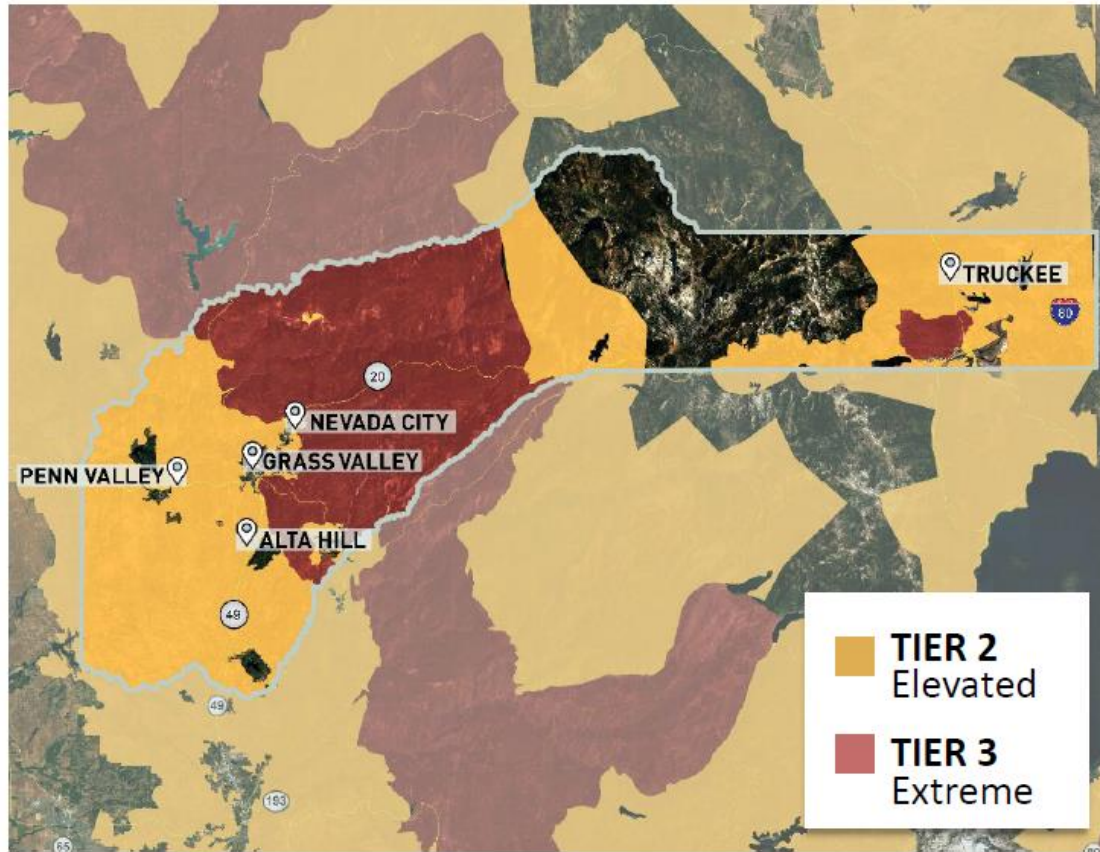
DISCUSSION TOPICS:

- ✓ 2020 PSPS IMPROVEMENTS
- ✓ LOCAL PROJECTS
- ✓ 30-YEAR WEATHER ANALYSIS
- ✓ EVENT COORDINATION AND INFORMATION SHARING
- ✓ ELECTRIC GRID OVERVIEW
- ✓ DISCUSSION

2020 PSPS Improvements

	GOAL	INITIATIVES
 <p>SMALLER IN SIZE</p>	<p>Reduce the number of customers impacted by PSPS events by one-third compared to 2019</p>	<ul style="list-style-type: none"> • 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
 <p>SHORTER IN LENGTH</p>	<p>Restore customers twice as fast after severe weather has passed</p>	<ul style="list-style-type: none"> • 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
 <p>SMARTER FOR CUSTOMERS</p>	<p>Provide more accurate/timely communications and additional resources</p>	<ul style="list-style-type: none"> • 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
	<p>Deliver more assistance before, during and after a PSPS event</p>	<ul style="list-style-type: none"> • Working with the California Foundation for Independent Living Centers 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

CPUC High Fire-Threat District (HFTD) Map Nevada County



1,490 total overhead distribution miles
908 in Tier 2 | 437 in Tier 3 | **90%** in HFTD



196 total overhead transmission miles
118 in Tier 2 | 69 in Tier 3 | **95%** in HFTD



6 total substations



43,200 total customers served
27,000 (**63%**) Customers in HFTD



1,800 total Medical Baseline Customers



300 total critical facilities



PG&E In Your Community

WILDFIRE SAFETY AND CUSTOMER SUPPORT PROGRAM EFFORTS



**2019
COMPLETE**



**2020
TARGET**

Weather Stations Enhancing weather forecasting and modeling	14 STATIONS	1+ IN PROGRESS*
High-Definition Cameras Improving real-time monitoring of high-risk areas and conditions	6 CAMERAS	IN PROGRESS*
Community Resource Centers Provide basic power needs and up-to-date information	3 EXECUTED	IN PROGRESS
Sectionalizing Devices Separating the grid into small sections for operational flexibility	5 DEVICES	16 DEVICES
System Hardening Stronger poles, covered lines and/or targeted undergrounding	4 LINE MILES	27 LINE MILES
Temporary Microgrids Safely energize customers during a PSPS event	1 EXECUTED	2 POSSIBLE
Enhanced Vegetation Management Inspecting, pruning and removing vegetation	54 LINE MILES	85 LINE MILES

*Locations identified on a monthly basis

All data is preliminary and based on early 2020 work planning. Data as of April 2020.

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

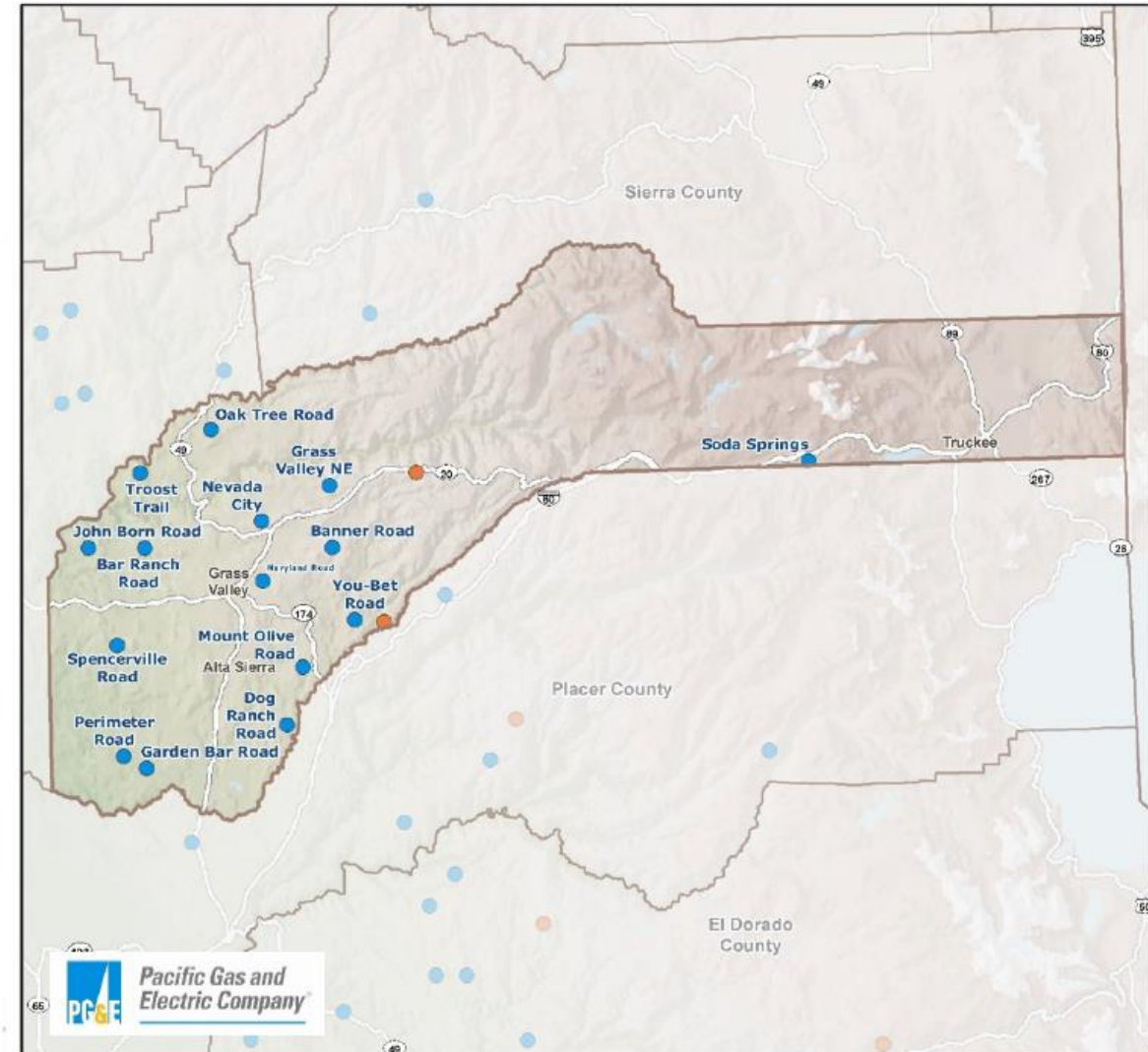
Targeting **one station roughly every 20 circuit-miles** in high fire-threat areas by 2022.

15

Weather stations installed to date

MAP LEGEND:

- PG&E Weather Station installed
- PG&E Weather Station planned
- Remote Automated Weather Stations (RAWS) within PG&E's service area



Data is publicly available at pge.com/weather and mesowest.utah.edu

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.

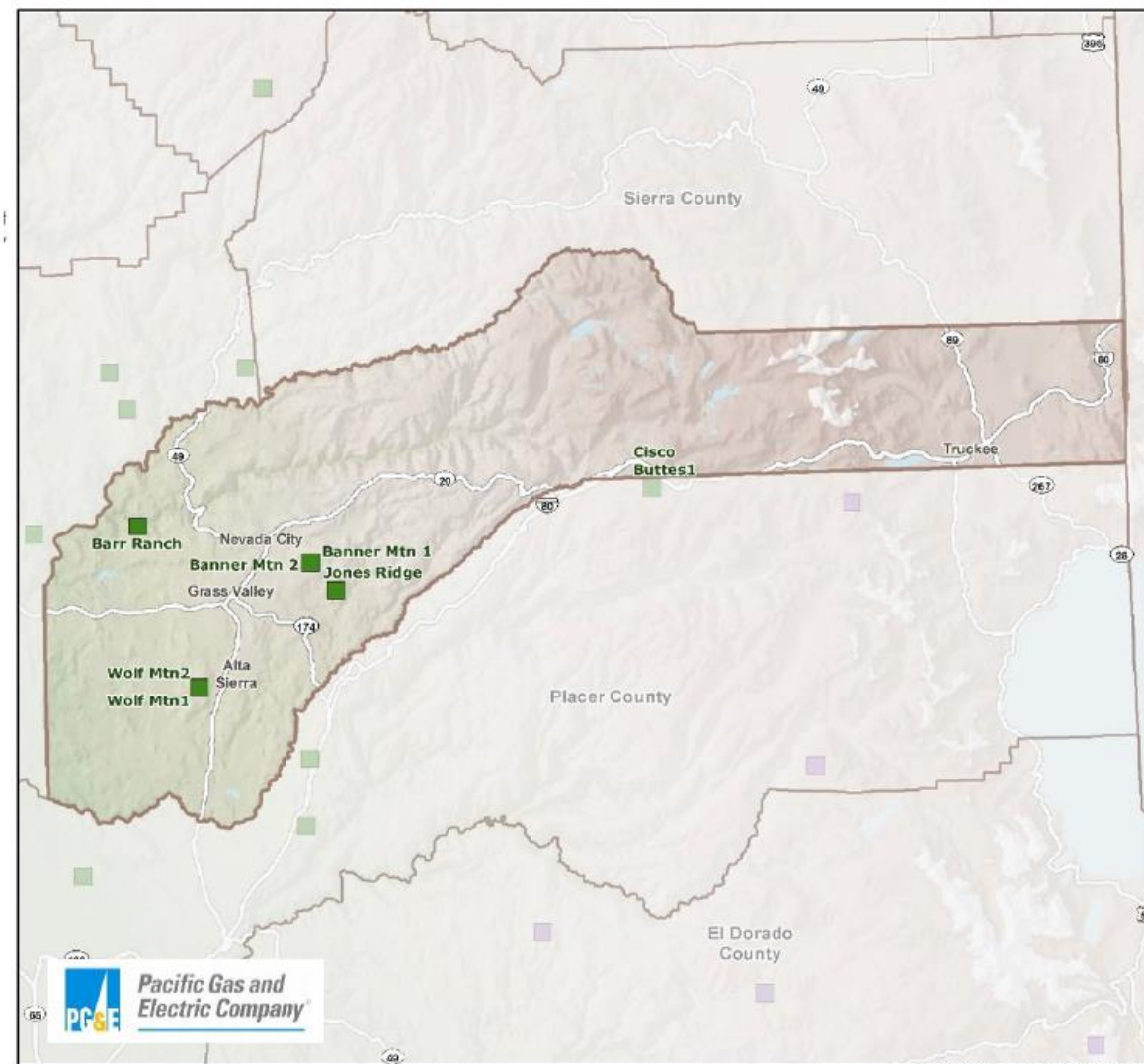
6*

Cameras installed to date

MAP LEGEND:

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

***Two cameras overlap on Wolf Mountain and two cameras overlap on Banner Mountain**



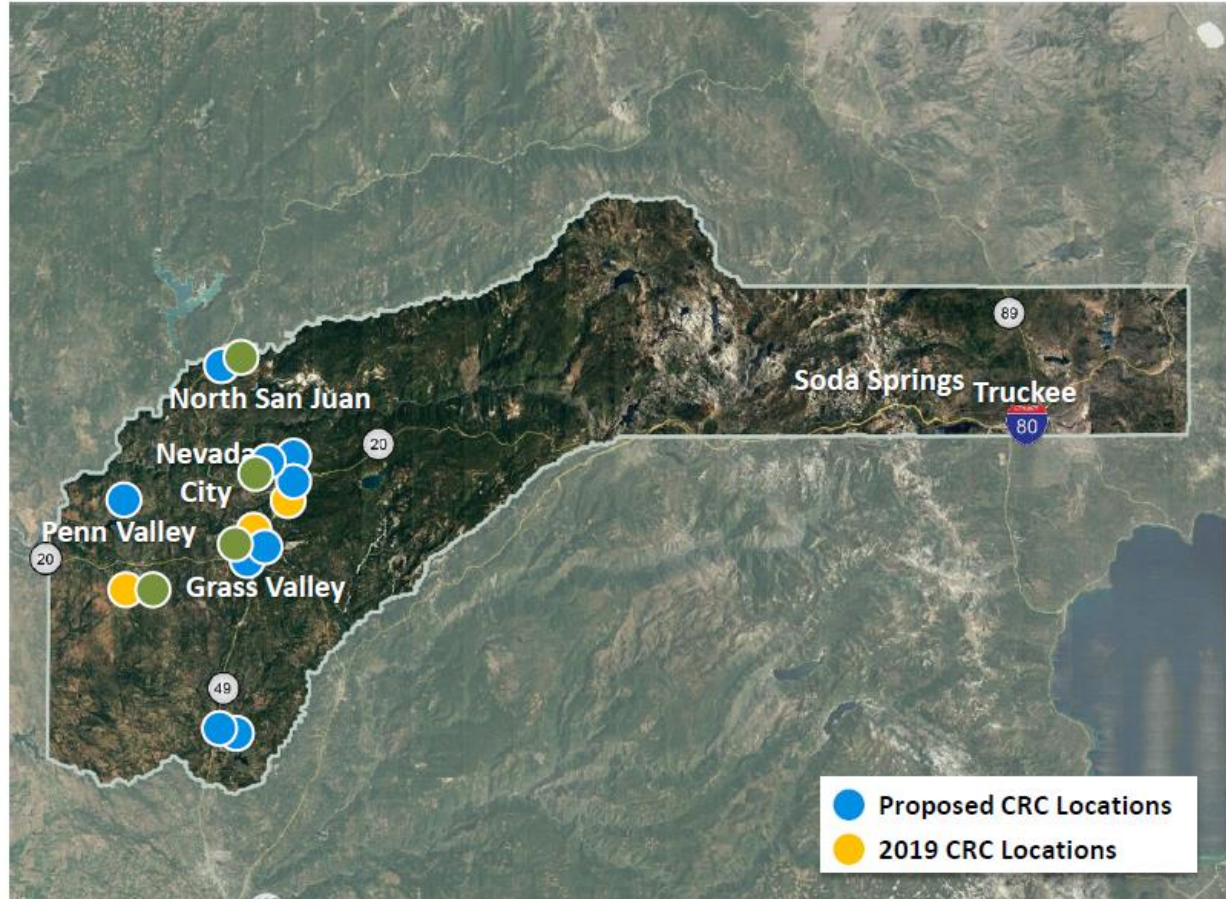
Images are publicly available at pge.com/weather and alertwildfire.org

All data is preliminary and based on early 2020 work planning. Data as of April 2020.

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

Our goal is to work together to identify and secure multiple CRC locations within each county/tribe in our service area.

Proposed CRC Locations		Status/Notes
1	Magnolia Intermediate School, Grass Valley	Site Event Ready
2	NSJ Community Center, North San Juan	Executed Agreement
3	Nevada City Elks Lodge #518, Nevada City	Site in Progress, Pending Electrical Site Visit
4	Foothills Event Center, Grass Valley	Site in Progress, Pending ADA & Electrical Site Visits
5	Grass Valley Veterans Memorial Building, Grass Valley	Site in consideration
6	Nevada City Veterans Hall, Nevada City	Site in consideration
7	Cottage Hill Elementary School, Grass Valley	Site in consideration
8	Madelyn Helling Library, Community Room, Nevada City	Site in consideration
9	Williams Ranch Elementary, Penn Valley	Site in consideration
10	Sierra College Grass Valley, Grass Valley	Agreement in Place
11	Nevada City Elks Lodge, Nevada City	Agreement in Place
12	Penn Valley Community Church, Penn Valley	Agreement in Place
13	Sweetland Garden Mercantile, North San Juan	Site under consideration pending owner response
14	Ready springs elementary school	Site no longer in consideration, electric



Locations will be activated as needed, depending on event scope and potential customer impacts. **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.**

■ Nevada County Recommended
 ■ Outdoor Location

All data is preliminary and based on early 2020 work planning. Data as of April 2020.

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


Electric Power Supply Nevada 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
-  500 kV

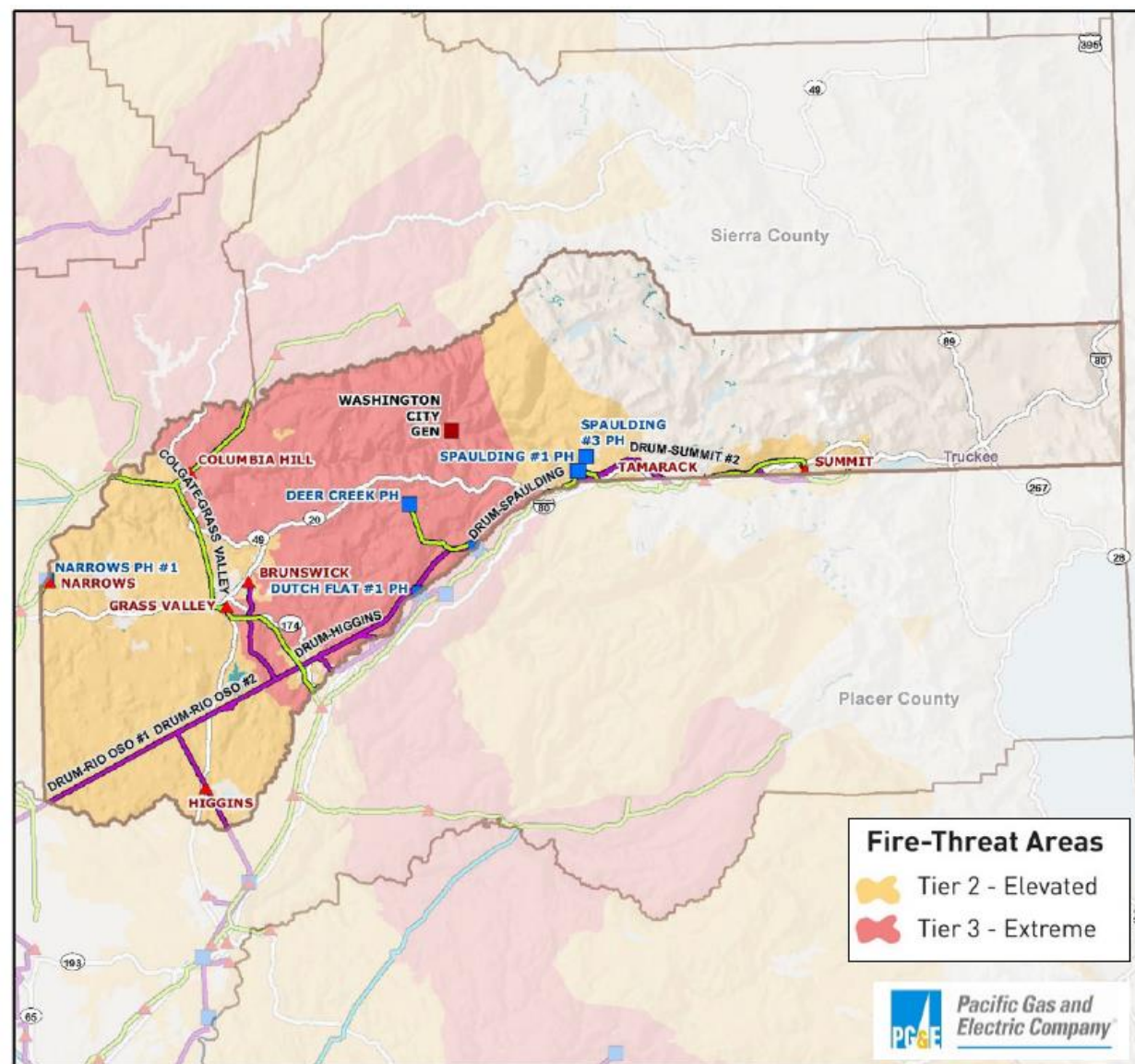
PG&E Facility

-  Substation

**2019 Peak Load:
125 MW**

This data is also publicly available at:

- www.pge.com/wildfiremitigationplan
- County Energy Commission (CEC) website:
<https://cecgis-caenergy.opendata.arcgis.com/>



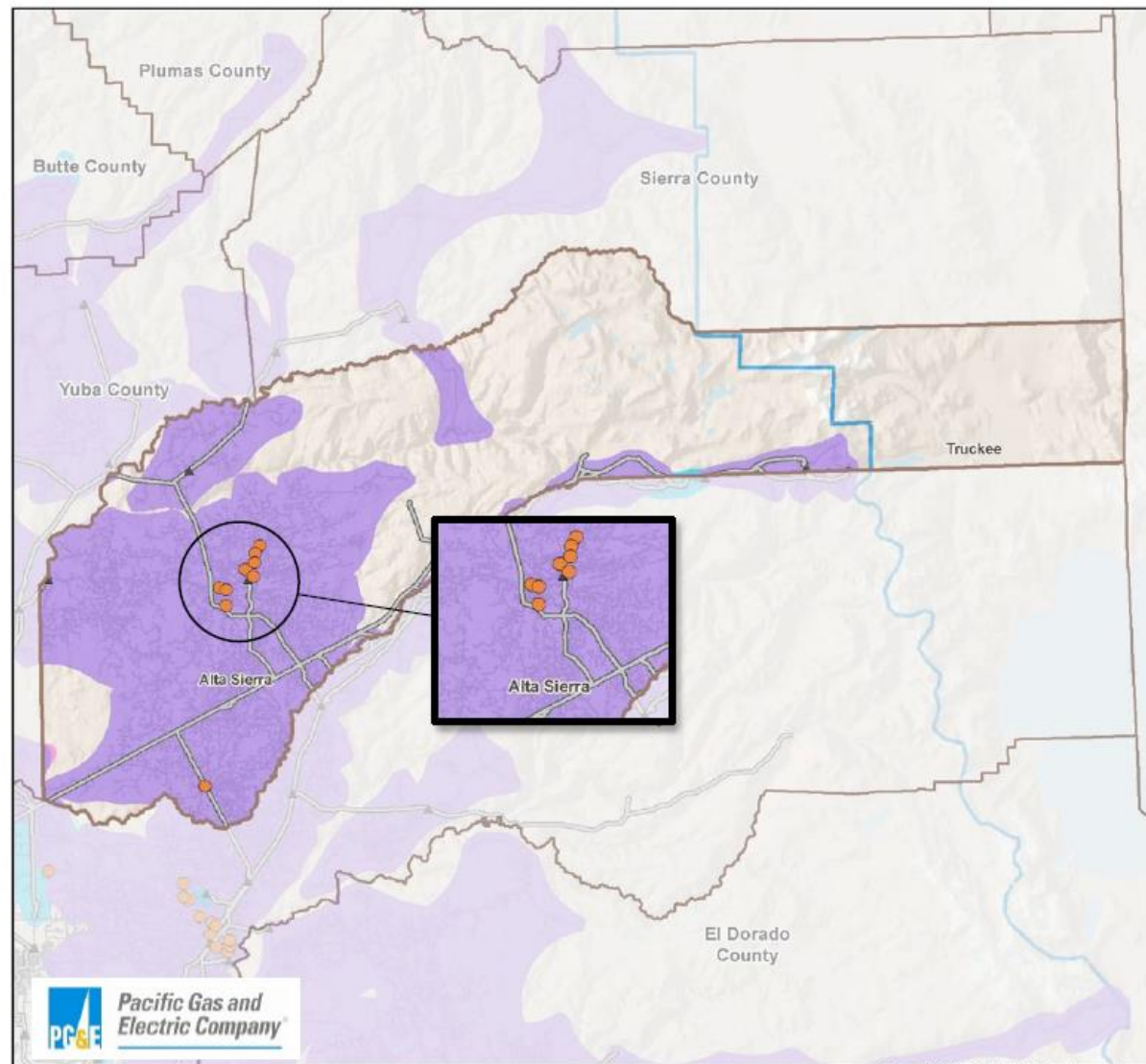
We're installing new sectionalizing devices to limit the number of customers impacted during a PSPS event.

2020 TARGET 16 DEVICES

MAP LEGEND:

- Distribution sectionalizing devices installed in late 2019 or planned in 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.



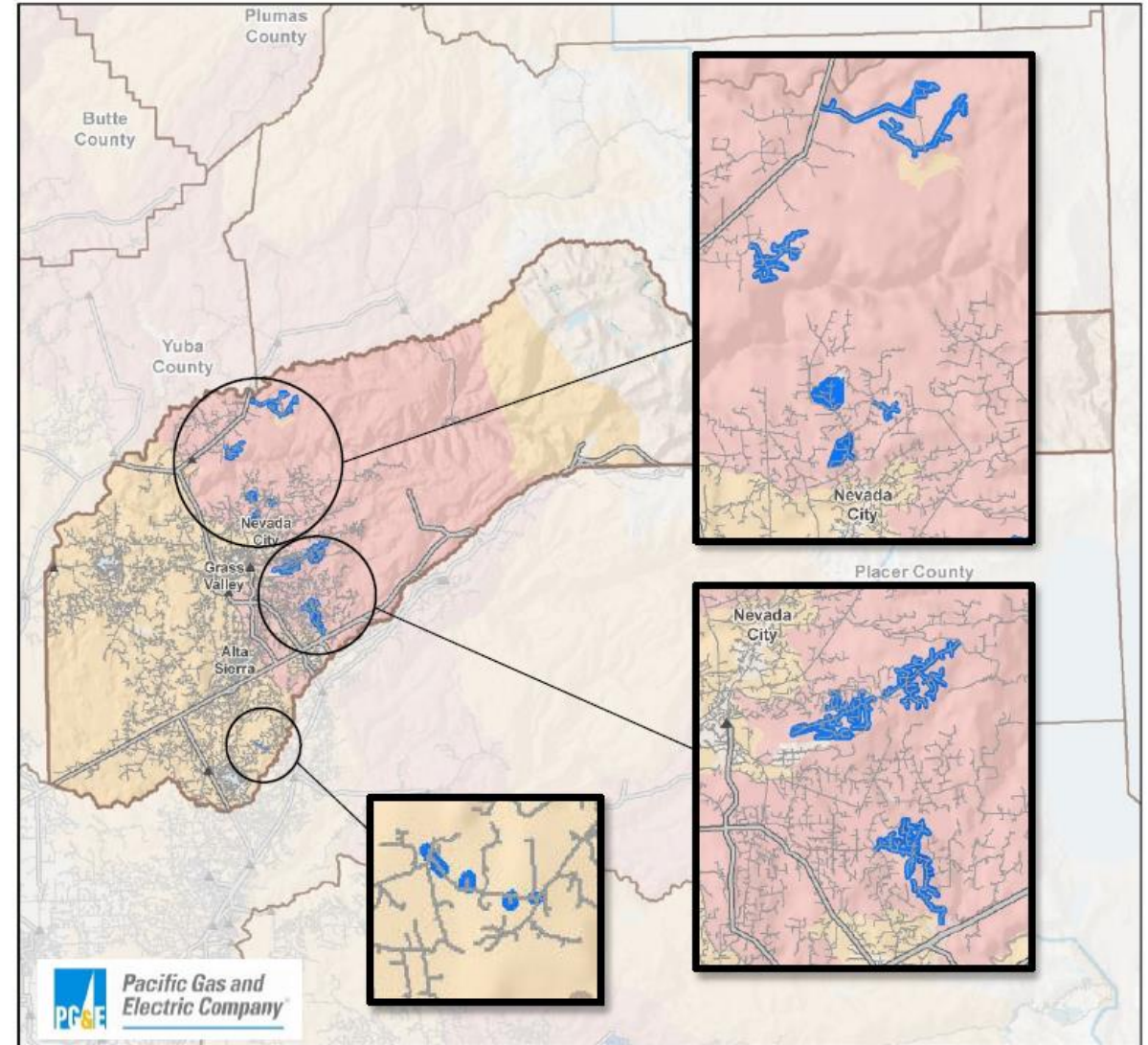
We are **installing stronger and more resilient poles and covered power lines** in high-risk areas, **replacing equipment**, and conducting **targeted undergrounding** where appropriate.

2020 TARGET 27 LINE MILES

MAP LEGEND:

- Wildfire risk reduction planned project
- PSPS mitigation planned project
- Substation

Note: Map reflects projects in planning and/or underway and may not include all miles planned for 2020



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+

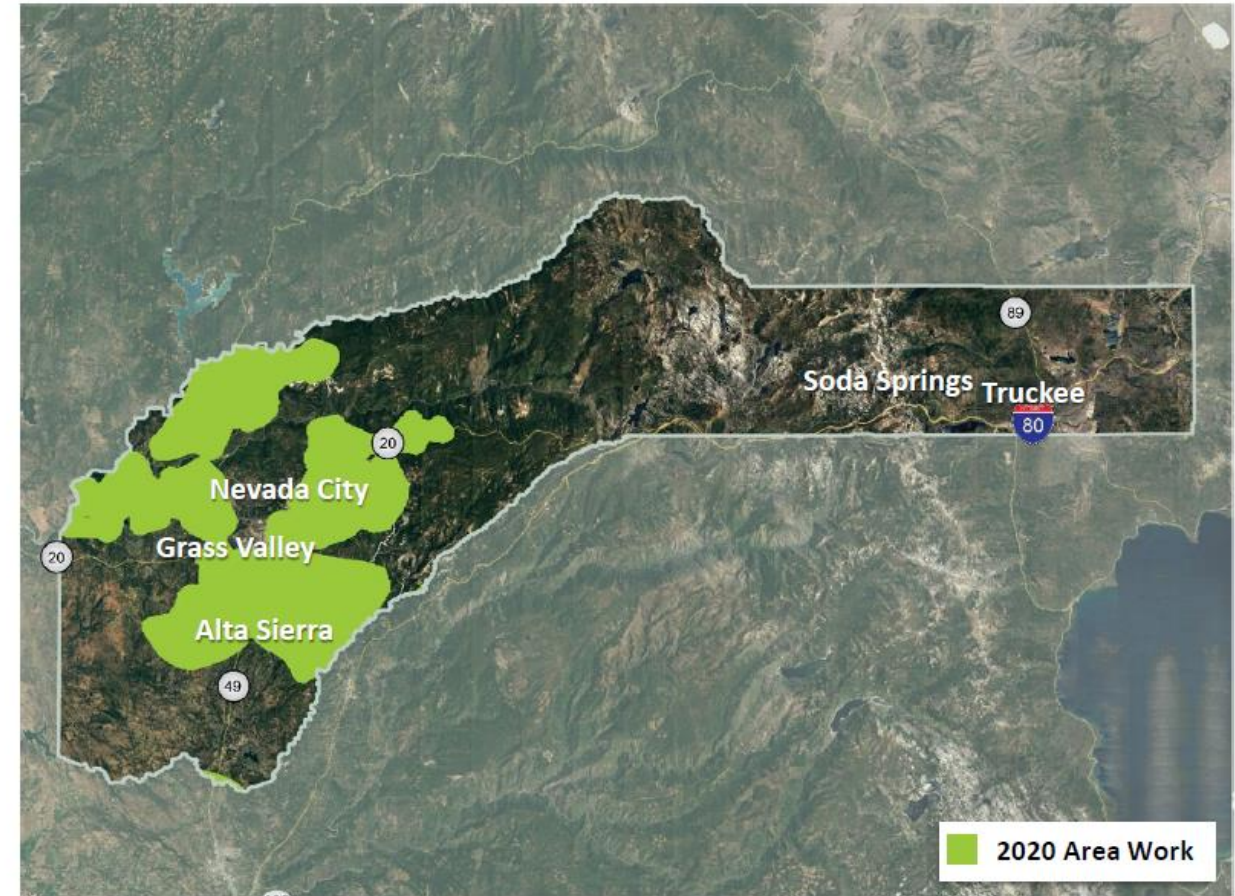
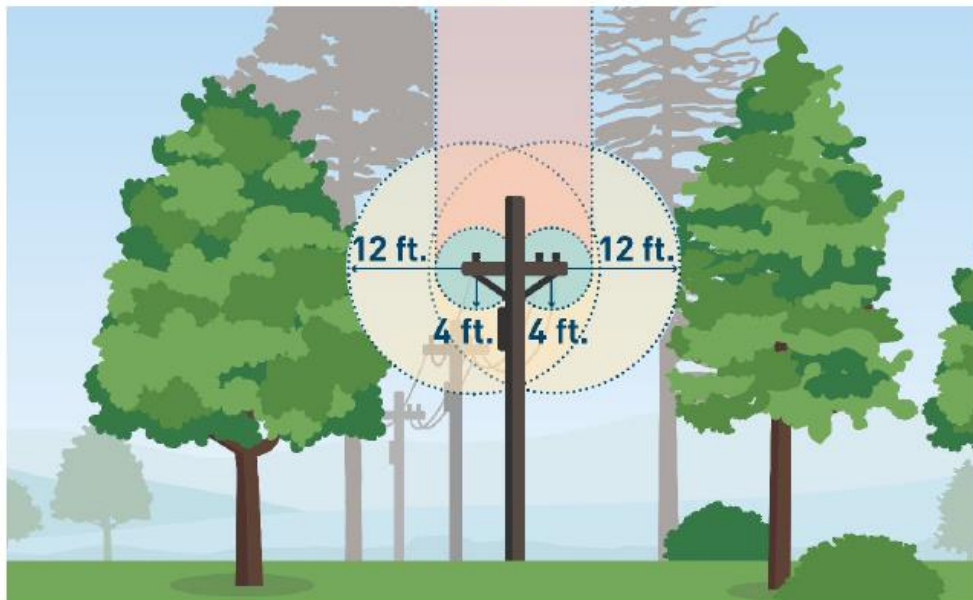
sites currently being considered across PG&E's service area



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 85 LINE MILES



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

Questions?

