

PUBLIC UTILITIES COMMISSION
505 Van Ness Avenue
San Francisco CA 94102-3298



Pacific Gas & Electric Company
ELC (Corp ID 39)
Status of Advice Letter 6559E
As of June 3, 2022

Subject: Information Only: After-Meeting Reports for Semi-Annual Resiliency Workshops Pursuant to Decision 20-06-017

Division Assigned: Energy

Date Filed: 04-11-2022

Date to Calendar: 04-13-2022

Authorizing Documents: D2006017

Disposition:	Accepted
Effective Date:	06-02-2022

Resolution Required: No

Resolution Number: None

Commission Meeting Date: None

CPUC Contact Information:

edtariffunit@cpuc.ca.gov

AL Certificate Contact Information:

Stuart Rubio
(415) 973-4587
PGETariffs@pge.com

PUBLIC UTILITIES COMMISSION
505 Van Ness Avenue
San Francisco CA 94102-3298



To: Energy Company Filing Advice Letter

From: Energy Division PAL Coordinator

Subject: Your Advice Letter Filing

The Energy Division of the California Public Utilities Commission has processed your recent Advice Letter (AL) filing and is returning an AL status certificate for your records.

The AL status certificate indicates:

- Advice Letter Number
- Name of Filer
- CPUC Corporate ID number of Filer
- Subject of Filing
- Date Filed
- Disposition of Filing (Accepted, Rejected, Withdrawn, etc.)
- Effective Date of Filing
- Other Miscellaneous Information (e.g., Resolution, if applicable, etc.)

The Energy Division has made no changes to your copy of the Advice Letter Filing; please review your Advice Letter Filing with the information contained in the AL status certificate, and update your Advice Letter and tariff records accordingly.

All inquiries to the California Public Utilities Commission on the status of your Advice Letter Filing will be answered by Energy Division staff based on the information contained in the Energy Division's PAL database from which the AL status certificate is generated. If you have any questions on this matter please contact the:

Energy Division's Tariff Unit by e-mail to
edtariffunit@cpuc.ca.gov

April 11, 2022

Advice 6559-E

(Pacific Gas and Electric Company U 39 E)

Public Utilities Commission of the State of California

Subject: Information Only: After-Meeting Reports for Semi-Annual Resiliency Workshops Pursuant to Decision 20-06-017

Purpose

Pacific Gas and Electric Company (PG&E) hereby submits this information-only Tier 1 Advice Letter (“AL”) in compliance with the California Public Utilities Commission (“CPUC” or “Commission”) Decision (“D.”) 20-06-017 (“Decision”) Ordering Paragraph (“OP”) 8. The AL demonstrates PG&E’s compliance with Section 4.3.2.1 which requires (1) the investor-owned utilities (“IOUs”) to conduct semi-annual workshops designed to, among other things, help empower local and tribal jurisdictions with a better understanding of grid operations, utility infrastructure, and the nature of weather events alongside public safety power shutoff (“PSPS”) mitigation initiatives and (2) submit on the first day of each calendar quarter an advice letter that compiles all after-meeting reports from the prior quarter, if applicable.

Background

The Commission initiated Rulemaking (“R.”) 19-09-009 to develop a policy framework surrounding the commercialization of microgrids and related resiliency strategies and to implement Senate Bill (SB) 1339 (Stern, 2018).

On December 20, 2019 the assigned Commissioner’s Scoping Memo and Ruling was issued, adopting a scope and schedule for Track 1 of the proceeding. Track 1 addressed deploying resiliency planning in areas that are prone to outage events and wildfires, with the goal of establishing key microgrid and resiliency strategies as soon as possible. Subsequently, on January 21, 2020, Administrative Law Judge Rizzo issued a Ruling with Energy Division staff’s (“Staff’s”) proposal on short-term actions related to microgrids and other resiliency strategies that could be initiated in early 2020 to reduce the impact of PSPS outages or other catastrophic events.

On June 11, 2020, the Commission adopted D.20-06-017, which, among other actions, approved certain Staff proposals for information sharing with local and tribal governments.

This AL addresses the requirements included in Ordering Paragraph 8 of D.20-06-017, which requires:

Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), and San Diego Gas & Electric Company (SDG&E) shall each submit informational filings in this proceeding, no later than five business days after the local and tribal government semi-annual meetings are held. These after-meeting reports shall demonstrate compliance with Section 4.3.2.1 of this decision by showing:

- a) Commission staff were notified at least one (1) month prior to the meeting date;*
- b) Presentations and other materials were distributed to attendees at least twenty-four (24) hours in advance;*
- c) Contact information for meeting attendees, with a copies of a sign-in sheet;*
- d) Workshop agenda;*
- e) Workshop minutes or transcript;*
- f) Any presentations shown at the workshop; and*
- g) Any data formally provided to stakeholders at the workshop.*

PG&E submits this information-only Tier 1 Advice Letter in compliance with Ordering Paragraph 8 of D.20-06-017.

Discussion

Pursuant to OP 8 of D.20-06-017, PG&E is attaching to this Advice Letter a compiled set of after-meeting reports for semi-annual resiliency workshops held between March 24, 2021 and March 26, 2021. This includes the following attachments:

- Attachment 1 – Pacific Gas and Electric Company Community Wildfire Safety Program – Regional Working Groups (First Quarter, 2022) Meeting Summary
- Attachment 2 – Agenda and Presentations for the First Quarter 2022, Regional Working Groups (including Resiliency Workshop)
- Attachment 3 – E-mail to Commission Staff Notifying of the Dates for the First Quarter 2022, Regional Working Groups (including Resiliency Workshop)

Protests

Anyone wishing to protest this submittal may do so by letter sent electronically via E-mail, no later than May 2, 2022, which is 21 days after the date of this submittal.¹ Protests must be submitted to:

CPUC Energy Division
ED Tariff Unit
E-mail: EDTariffUnit@cpuc.ca.gov

The protest shall also be electronically sent to PG&E via E-mail at the address shown below on the same date it is electronically delivered to the Commission:

Sidney Bob Dietz II
Director, Regulatory Relations
c/o Megan Lawson
E-mail: PGETariffs@pge.com

Any person (including individuals, groups, or organizations) may protest or respond to an advice letter (General Order 96-B, Section 7.4). The protest shall contain the following information: specification of the advice letter protested; grounds for the protest; supporting factual information or legal argument; name and e-mail address of the protestant; and statement that the protest was sent to the utility no later than the day on which the protest was submitted to the reviewing Industry Division (General Order 96-B, Section 3.11).

Effective Date

Pursuant to General Order (GO) 96-B, Rule 5.1, and General Rule 7.3.3, and OP 8 of D. 20-06-017, this advice letter is submitted with a Tier 1 designation. PG&E requests that this Tier 1 advice submittal become effective upon date of submittal, which is April 11, 2022.

Notice

In accordance with General Order 96-B, Section IV, a copy of this advice letter is being sent electronically to parties shown on the attached list and the parties on the service list for R.19-09-009 and R.18-12-005. Address changes to the General Order 96-B service list should be directed to PG&E at email address PGETariffs@pge.com. For changes to any other service list, please contact the Commission's Process Office at (415) 703-2021 or at Process_Office@cpuc.ca.gov. Send all electronic approvals to PGETariffs@pge.com. Advice letter submittals can also be accessed electronically at: <http://www.pge.com/tariffs/>.

¹ Per CPUC's Rule 1.15, if deadline falls on a Saturday, Sunday, holiday or other day when the Commission offices are closed, the time limit is extended to include the first day thereafter.

/S/

Sidney Bob Dietz II
Director, Regulatory Relations

Attachments

cc: Service List R.19-09-009, R.18-12-005



ADVICE LETTER SUMMARY

ENERGY UTILITY



MUST BE COMPLETED BY UTILITY (Attach additional pages as needed)

Company name/CPUC Utility No.: Pacific Gas and Electric Company (U 39 E)

Utility type:

- ELC GAS WATER
 PLC HEAT

Contact Person: Stuart Rubio

Phone #: (415) 973-4587

E-mail: PGETariffs@pge.com

E-mail Disposition Notice to: SHR8@pge.com

EXPLANATION OF UTILITY TYPE

ELC = Electric GAS = Gas WATER = Water
 PLC = Pipeline HEAT = Heat

(Date Submitted / Received Stamp by CPUC)

Advice Letter (AL) #: 6559-E

Tier Designation: Information-only

Subject of AL: Information Only: After-Meeting Reports for Semi-Annual Resiliency Workshops Pursuant to Decision 20-06-017

Keywords (choose from CPUC listing): Compliance

AL Type: Monthly Quarterly Annual One-Time Other:

If AL submitted in compliance with a Commission order, indicate relevant Decision/Resolution #: D.20-06-017

Does AL replace a withdrawn or rejected AL? If so, identify the prior AL: No

Summarize differences between the AL and the prior withdrawn or rejected AL: N/A

Confidential treatment requested? Yes No

If yes, specification of confidential information:

Confidential information will be made available to appropriate parties who execute a nondisclosure agreement. Name and contact information to request nondisclosure agreement/ access to confidential information:

Resolution required? Yes No

Requested effective date: 4/11/22

No. of tariff sheets: 0

Estimated system annual revenue effect (%): N/A

Estimated system average rate effect (%): N/A

When rates are affected by AL, include attachment in AL showing average rate effects on customer classes (residential, small commercial, large C/I, agricultural, lighting).

Tariff schedules affected: N/A

Service affected and changes proposed¹: N/A

Pending advice letters that revise the same tariff sheets: N/A

¹Discuss in AL if more space is needed.

Protests and correspondence regarding this AL are to be sent via email and are due no later than 20 days after the date of this submittal, unless otherwise authorized by the Commission, and shall be sent to:

California Public Utilities Commission
Energy Division Tariff Unit Email:
EDTariffUnit@cpuc.ca.gov

Contact Name: Sidnev Bob Dietz II. c/o Megan Lawson
Title: Director, Regulatory Relations
Utility/Entity Name: Pacific Gas and Electric Company

Telephone (xxx) xxx-xxxx: (415)973-2093
Facsimile (xxx) xxx-xxxx:
Email: PGETariffs@pge.com

Contact Name:
Title:
Utility/Entity Name:

Telephone (xxx) xxx-xxxx:
Facsimile (xxx) xxx-xxxx:
Email:

CPUC
Energy Division Tariff Unit
505 Van Ness Avenue
San Francisco, CA 94102

Clear Form

Attachment 1

**Pacific Gas and Electric Company Community Wildfire Safety
Program – Regional Working Groups (First Quarter, 2022)
Meeting Summary**

**Pacific Gas and Electric Company
Community Wildfire Safety Program – Regional Working Groups
(First Quarter, 2022)
Meeting Summary**

Background

From March 23-25, Pacific Gas and Electric Company (PG&E) hosted their first quarter Regional Working Group meetings of 2022 with key stakeholders from communities impacted by prior Public Safety Power Shutoff (PSPS) events in all five regions of PG&E's service territory: Central Valley, North Coast, South Bay/Central Coast, North Valley/Sierra and Bay Area. These meetings provided participants and PG&E a forum to provide updates and receive feedback regarding PG&E's 2022 Wildfire Mitigation Plan, local resilience efforts including undergrounding, Enhanced Powerline Safety Settings (EPSS), microgrids as well as Public Safety Power Shutoff (PSPS) updates.

The 2022 first quarter Regional Working Group meetings addressed the topics required under the California Public Utilities Commission's (CPUC) PSPS Phase II Decision¹: lessons learned and feedback from prior PSPS events, communication strategies and information sharing and strategies for supporting people/communities with Access and Functional Needs (AFN).

As we have done in past meetings, we included topics from the Microgrids and Resiliency Strategies Rulemaking (Microgrid OIR)² which directs utilities to conduct semi-annual workshops to share valuable information and take a collaborative approach to planning grid resiliency measures responsive to local needs. The Microgrid OIR also expanded the meeting scope to include grid resiliency and hardening efforts, data on resilience progress in each region and an adjusted invitee list. PG&E subject matter experts (SMEs) and local representatives participated in the meetings to answer questions and engage with meeting participants. Working group invitees included representatives from tribal and local government entities, small multi-jurisdictional electric utilities, publicly owned electric utilities, communications and water service providers, public safety partners, the disabled, aging and AFN populations (e.g., directors of local Independent Living Centers) and CPUC staff. Meetings were structured to provide attendees with key information and metrics on the above topics and participants were encouraged to provide feedback, engage and collaborate with each other.

Timing and Facilitation

The Regional Working Group meetings were held March 23-25 and moderated by PG&E's Senior Manager/Director Local Customer Experience and Division Lead (one region was facilitated by a member of PG&E's Local Government Affairs team), with support from Local Government Affairs representatives, Tribal Liaisons and Public Safety Specialists from each respective region. PG&E's Regional Vice Presidents also participated in three of the five meetings (Bay Area, Central Valley and North Valley/Sierra). Additionally, an invitation to co-moderate the Grid Resilience Planning portion of the meeting was

¹ D.20-05-051

² D.20-06-017

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

extended to County and Tribal Office of Emergency Services (OES) partners. One regional co-moderator accepted this invitation and co-moderated a portion of the meeting (Central Valley).

Attendance

The Regional Working Group meetings were attended by an average of 32 participants per session this quarter.

Sample Comments Received

The first quarter 2022 meetings were held virtually via a web-based video conference platform. The virtual platform provided attendees the ability to participate verbally, as well as through the chat feature. In addition, the ability to turn on live captions was available to aid any participants who were deaf or experience hearing loss. All questions and comments were addressed in real-time and below are some participant comments captured during the four working groups.

- “Is there still time for tribes to have input in the plan (WMP) process?” – Hoopa Tribe
- “The Northern Humboldt region is impacted by power outages multiple times per year. Does PG&E have any upcoming for energy resiliency invest in this area?” – Hoopa Tribe
- “Sonoma Clean Power was thrilled to see this underground work was completed and makes a big difference for our community.” – Sonoma Clean Power
- “Wondering if a map of the individual circuits will be provided to counties to make agencies a little more aware of how the circuits are impacted by EPSS.” – County of Santa Cruz
- “I saw that PSPS outages dropped from 2 million in 2019 to 80k in 2021, what is a reasonable baseline, getting it to zero would be difficult. How many outages would we see in an entire year and how many customers would be impacted?” – Peninsula Clean Energy
- “With undergrounding efforts I learned about the aspect of joint pole tenants and that some lines may remain above ground. I’m not familiar with the phrase joint pole tenants, is that normal everywhere?” – Peninsula Clean Energy
- “Will EPSS only impact Tier 2 and 3 areas or can people living outside of the wildfire areas be impacted too?” – Independent Living Resources of Solano & Contra Costa Counties
- “Do you have any maximum and/or minimum length of the potential EPSS events?” – California Foundation for Independent Living Centers

Continued Engagement

We are continuing to engage with key stakeholders from each region through ongoing outreach efforts and upcoming Regional Working Groups. These continued engagements are typically conducted through assigned PG&E representatives (i.e., Account Representatives, Public Safety Specialists, Local Government Affairs Representatives, Tribal Liaisons, etc.). For reference, detailed follow-up items captured during each meeting, along with meeting participant lists, are included below/in the meeting summary forms located in the Appendix.

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

Appendix



**Community Wildfire Safety Program
Regional Working Group Summary Sheet**

MEETING INFORMATION		
Region: Central Valley	Quarter: Q1 2022	Meeting Date: 3/23

INFORMATION REQUESTS / FOLLOW-UP ITEMS			
Description	Owner	Recipient	Status
What types of support will be offered to the AFN community during an EPSS outage? Will they be similar to the support offered during PSPS events?	Greg Race, Nav Gill	Jan Lemucchi, LTSS Manager Independent Living Center of Kern County	In Progress
Asked if Southern California Edison will also be utilizing something similar to EPSS and noted the difficulties of communicating the nuances of different programs in communities served by multiple power companies.	Deron Mills, Nav Gill	Jan Lemucchi, LTSS Manager Independent Living Center of Kern County	In Progress

FEEDBACK / LESSONS LEARNED	
Topic	Summary
2022 Wildfire Mitigation Plan Update	<ul style="list-style-type: none"> N/A
Community Wildfire Safety Program Update	<ul style="list-style-type: none"> N/A
Local Resilience Efforts – Undergrounding	<ul style="list-style-type: none"> N/A
Local Resilience Efforts – EPSS	<ul style="list-style-type: none"> Discussed the types of support that will be offered to the Access and Functional Needs (AFN) community during Enhanced Powerline Safety Settings (EPSS) outages and if it will be similar to PSPS events. Noted that some customers rely on PSPS services such as lodging during an outage.
Local Resilience Efforts – Microgrids,	<ul style="list-style-type: none"> A question from a participant was raised as to whether the backup power transfer meter program would be executed similarly to other programs (i.e., backup generation).

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FEEDBACK / LESSONS LEARNED	
Topic	Summary
Remote Grids and Backup Generation	<ul style="list-style-type: none"> Participant noted that all agencies participating in the Disability Disaster Access & Resources (DDAR) program will be interested in the transfer meter program information. Team discussed that 211 is aware of the DDAR Program.
Local Resilience Planning Session	<ul style="list-style-type: none"> Madera County OES co-moderator highlighted past coordination efforts their team had led including partnering with the CBO in their county to pre-stage backup generators in areas where they may be needed.
Resilience Planning Flyover	<ul style="list-style-type: none"> Participants noted positive feedback on undergrounding and EPSS flyover and improvements that have been made in since last year.
Open Discussion/Q&A	<ul style="list-style-type: none"> Coordination with other IOUs/utilities regarding the naming of programs like EPSS and how it is hard to communicate multiple names for the same basic process across counties that have shared service areas was raised as a potential area for improvement.

MEETING PARTICIPANTS (26)		
Name	Title	Agency
John Osborn		Calaveras County Office of Emergency Services
Lisa Austin		California Foundation for Independent Living Centers
Hope Christman		California Public Utilities Commission
Tony Noll		California Public Utilities Commission
Hassan Jahami		California Public Utilities Commission
Mabel Wu		California Public Utilities Commission
Will Dundon		California Public Utilities Commission
Desmond Lew		California Public Utilities Commission
Joan Weber		California Public Utilities Commission
Anne Kim		California Public Utilities Commission
Henry Sweat		California Public Utilities Commission CPUC
David Soares		Disability Resources Agency for Independent Living
Liliana Altamirano		Disability Resources Agency for Independent Living
Gabe De La Cerda		Fresno County Office of Emergency Services
Lt. Kathy Curtice		Fresno County Sheriff's Office
Jan Lemucchi	LTSS Manager	Independent Living Center of Kern County
Joseph Wilder	Sergeant	Madera County Sheriff's Office
Wes Smith		Mariposa County Office of Emergency Services
Hai Norman		Resources for Independence Central Valley
Tiffany Heyer		San Joaquin County OES
Allen Lowell		San Joaquin County OES

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

MEETING PARTICIPANTS (26)		
Name	Title	Agency
Christopher Miller		San Joaquin County Office of Emergency Services
Diana Beasley		Tuolumne Band of Me-Wuk Indians
Austin Avery		Turlock Irrigation District
Aaron McDonald	Emergency Response Coordinator	Valley Mountain Regional Center
Ken Quiner	Emergency Manager	Washoe Tribe

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**Community Wildfire Safety Program
Regional Working Group Summary Sheet**

MEETING INFORMATION		
Region: North Valley/Sierra	Quarter: Q1 2022	Meeting Date: 3/23

INFORMATION REQUESTS / FOLLOW-UP ITEMS			
Description	Owner	Recipient	Status
Will PG&E be providing a report to CPUC/SED on the EPSS outages by circuit? Would like county by county progress report document and coordination.	Brandon Sanders, Eddie Gonzalez Jr.	Alexia Retallack, Pioneer Community Energy	In Progress
We have a list of which circuits our accounts are on, is it possible to determine which are on EPSS circuits?	Brandon Sanders, Jim Monninger	Dan Corcoran, El Dorado Irrigation District	In Progress
Follow up meeting regarding EPSS planning and trainings for DDAR providers.	Nav Gill, Megan Geraci	Carolyn Nava, Disability Action Center	In Progress

FEEDBACK / LESSONS LEARNED	
Topic	Summary
2022 Wildfire Mitigation Plan Update	<ul style="list-style-type: none"> N/A
Community Wildfire Safety Program Update	<ul style="list-style-type: none"> N/A
Local Resilience Efforts – Undergrounding	<ul style="list-style-type: none"> Discussed tribal considerations that will be made when planning undergrounding projects and how cultural resources are accounted for/projects are communicated to tribal communities. A participant asked if PG&E is considering islanding opportunities for rural areas as a part of the undergrounding program. Updates regarding completed undergrounding projects requested for future meetings.
Local Resilience Efforts – EPSS	<ul style="list-style-type: none"> Meeting participant asked what resources are available for EPSS outages and noted how PSPS resources have been very helpful. Outlined the differences between an EPSS outage and a PSPS outages in the sense of their planned vs. unplanned nature.

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FEEDBACK / LESSONS LEARNED	
Topic	Summary
	<ul style="list-style-type: none"> • Access and Functional Needs community stakeholders expressed interest in additional coordination efforts, trainings and other resources to help support their communities. • Opportunities to provide general weather warnings or other forms of EPSS warnings were discussed as a potential improvement.
Local Resilience Efforts – Microgrids, Remote Grids and Backup Generation	<ul style="list-style-type: none"> • N/A
Local Resilience Efforts – Customer Resources	<ul style="list-style-type: none"> • Discussed who is able to qualify for a backup power transfer meter and if customers who have been impacted by past EPSS outages are eligible to receive support even if they reside outside of Tier 2/Tier 3 HFTD areas.
Resilience Planning Flyover	<ul style="list-style-type: none"> • Walked through how an EPSS outage can impact a circuit and answered questions about the general logistics of an EPSS outage.
Open Discussion/Q&A	<ul style="list-style-type: none"> • N/A

MEETING PARTICIPANTS (30)		
Name	Title	Agency
Richard Saldivar		California American Water
Henry Sweat		California Public Utilities Commission
Hassan Jahami		California Public Utilities Commission
Julian Enis		California Public Utilities Commission
Will Dundon		California Public Utilities Commission
Mabel Wu		California Public Utilities Commission
Shelby Chase		California Public Utilities Commission
Anne Kim		California Public Utilities Commission
Steven Klaiber		California Public Utilities Commission
Hope Christman		California Public Utilities Commission
Joan E. Weber		California Public Utilities Commission
Eric Zane		City of Woodland Fire Department
Joseph Leto		Comcast Cable
Dave Atkinson		County of Placer
Young Rodriguez		County of Placer
Brant Mesker		County of Tehama
Carolyn Nava		Disability Action Center
Wendy Longwell		Disability Action Center

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

MEETING PARTICIPANTS (30)		
Name	Title	Agency
Dan Corcoran	Operations Director	El Dorado Irrigation District
Debie Rasmussen	EPA Director	Enterprise Rancheria Estom Yumeka Maidu Tribe
Brian Snyder		FREED
Amy Travis		Glenn County Sheriff
Ron Halog	Emergency Preparedness Coordinator	Independent Living Resources of Solano and Contra Costa County
Shawn Swatosh		Mediacom Communications
Ronald Butz		Mooretown Rancheria of Maidu Indians of California
Alexia Retallack		Pioneer Community Energy
Alexia Retallack		Pioneer Community Energy
Theresa Laughlin		Pit River Tribe Office of Emergency Services
Pamela Courtright		Plumas County Sheriff's Office
Lee Brown		Sierra County Office of Emergency Services
Alisa Lembke		Valley Clean Energy

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**Community Wildfire Safety Program
Regional Working Group Summary Sheet**

MEETING INFORMATION		
Region: North Coast	Quarter: Q1 2022	Meeting Date: 3/24

INFORMATION REQUESTS / FOLLOW-UP ITEMS			
Description	Owner	Recipient	Status
For approximately how many of the 10,000 undergrounding miles does PG&E already have right-of-way/easements? Is land acquisition/permitting included in those estimated costs/mile?	Andrew Ace	Patrick Saxton, California Public Utilities Commission	In Progress
How have equity considerations been integrated into the prioritization of the undergrounding projects?	Andrew Ace	Rosanne Ratkiewich, California Public Utilities Commission	In Progress

FEEDBACK / LESSONS LEARNED	
Topic	Summary
2022 Wildfire Mitigation Plan Update	<ul style="list-style-type: none"> Discussed opportunities for tribal governments to provide feedback on Wildfire Mitigation Plan.
Community Wildfire Safety Program Update	<ul style="list-style-type: none"> N/A
Local Resilience Efforts – Undergrounding	<ul style="list-style-type: none"> A participant asked questions about how PG&E is factoring in land acquisition/permitting into cost estimates for undergrounding. Outlined the complexities of scoping 10,000-miles of undergrounding and how not all miles have been scoped yet. Discussed what criteria are considered when scoping undergrounding miles, including if/how equity is considered.
Local Resilience Efforts – EPSS	<ul style="list-style-type: none"> Walked through the improvements that have been made to the EPSS program since 2021 and also infrastructure updates that have led to improvements. Discussed customer notifications during EPSS outages.
Local Resilience Efforts – Microgrids, Remote Grids and Backup Generation	<ul style="list-style-type: none"> Northern Humboldt County was flagged as an area of consideration for future resiliency efforts, including the Hoopa area.

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FEEDBACK / LESSONS LEARNED	
Topic	Summary
Local Resilience Efforts – Customer Resources	<ul style="list-style-type: none"> N/A
Resilience Planning Flyover	<ul style="list-style-type: none"> Sonoma Clean Power noted appreciation regarding the highlighted undergrounding project in Sonoma County.
Open Discussion/Q&A	<ul style="list-style-type: none"> N/A

MEETING PARTICIPANTS (38)		
Name	Title	Agency
Ethan Bell		
Anne Kim		
Christina Lara		
Sergio Arreguin		
Margaret DiGenova		California American Water
Christina N. Mills		California Foundation for Independent Living Centers
Rosanne Ratkiewich		California Public Utilities Commission
Joan E. Weber		California Public Utilities Commission
Anthony Noll		California Public Utilities Commission
Hope Christman		California Public Utilities Commission
Shelby Chase		California Public Utilities Commission
Desmond Lew		California Public Utilities Commission
Hassan Jahami,		California Public Utilities Commission
Henry Sweat		California Public Utilities Commission
Patrick Saxton		California Public Utilities Commission
Jessica Tse		California Public Utilities Commission
Messay Betru		California Public Utilities Commission
Brittany Miller	Deputy EPC	City of Santa Rosa Fire Department
Neil Bregman	Emergency Preparedness Manager	City of Santa Rosa Fire Department
Woody Baker-Cohn		County of Marin
Angela Struckmann	Director of Human Services	County of Sonoma

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

MEETING PARTICIPANTS (38)		
Name	Title	Agency
Paula Glodowski Valla		County of Sonoma
Charles Born		Frontier Communications
Nora Garrido		Frontier Communications
Linnea Jackson		Hoopa Valley Public Utilities District
Greg Moon	Fire Chief and Director of Emergency Services	Hoopa Valley Tribe
Serene White	OES Coordinator	Hoopa Valley Tribe
Jaclyn Robinson		Hoopa Valley Tribe
Alicia Beecher		Hopland Band of Pomo Indians
Jacqueline Nushi	Emergency Manager	Karuk Tribe
Reno Franklin	Chairman	Kashia Pomo Tribe
Leah Sautelet		Lake County Office of Emergency Services
Shawn Swatosh		Mediacom Communications
Garrett James		Mendocino County Office of Emergency Services
Brentt Blaser		Mendocino County Office of Emergency Services
Sorhna Li		Scotts Valley Band of Pomo Indians
Erica Torgerson		Sonoma Clean Power
Eddie A Morgan		Tri-County Independent Living

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**Community Wildfire Safety Program
Regional Working Group Summary Sheet**

MEETING INFORMATION		
Region: South Bay/Central Coast	Quarter: Q1 2022	Meeting Date: 3/24

INFORMATION REQUESTS / FOLLOW-UP ITEMS			
Description	Owner	Recipient	Status
There was conversation about having cameras installed along some of these EPSS circuits to reduce the inspection timeline and pinpoint the cause. Is this going to happen?	Troy Welch	David Reid, County of Santa Cruz	In Progress

FEEDBACK / LESSONS LEARNED	
Topic	Summary
2022 Wildfire Mitigation Plan Update	<ul style="list-style-type: none"> N/A
Community Wildfire Safety Program Update	<ul style="list-style-type: none"> N/A
Local Resilience Efforts – Undergrounding	<ul style="list-style-type: none"> N/A
Local Resilience Efforts – EPSS	<ul style="list-style-type: none"> Discussed potential needs for maps of EPSS circuits and if they will be provided to agencies for planning purposes this year. A participant asked questions about the potential to utilize cameras along EPSS circuits to monitor for outages.
Local Resilience Efforts – Microgrids, Remote Grids and Backup Generation	<ul style="list-style-type: none"> N/A
Local Resilience Efforts – Customer Resources	<ul style="list-style-type: none"> Outlined how to access the new backup power transfer meter eligibility website.
Resilience Planning Flyover	<ul style="list-style-type: none"> N/A

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

Open Discussion/Q&A	• N/A
--------------------------------	-------

MEETING PARTICIPANTS (31)		
Name	Title	Agency
Richard A Saldivar		California American Water
Desmond Lew		California Public Utilities Commission
Hassan Jahami		California Public Utilities Commission
Mabel Wu		California Public Utilities Commission
Rosanne Ratkiewich		California Public Utilities Commission
Messay Betru		California Public Utilities Commission
Anthony Noll		California Public Utilities Commission
Anne Kim		California Public Utilities Commission
Jessica Tse		California Public Utilities Commission
Joan E. Weber		California Public Utilities Commission
Shelby Chase		California Public Utilities Commission
Henry Sweat		California Public Utilities Commission
Bob Cascone		City of Cupertino Office of Emergency Management
Andrew Young		City of Gilroy
Jennifer Ponce		City of Morgan Hill
Robert Maitland		City of Mountain View
Marcos Santiago		City of San Jose
Norma Amaro		City of Sunnyvale Department of Public Safety
Darrell Glenn Ray		County of San Mateo
Dana Reed		County of Santa Clara
David Reid		County of Santa Cruz
Charles Born		Frontier Communications
Don Clark		Monterey County
Gerry Malais		Monterey County Office of Emergency Services
Francisco Valenzuela		San Andreas Regional Center
Nate Gillespie		San Lorenzo Valley Water District
Scott Milner		San Luis Obispo County
Scotty Jalbert		San Luis Obispo County Office of Emergency Services
Pamela Leonard		Silicon Valley Clean Energy
Beena Morar		Southern California Edison
Juan Ledesma		Valley Water Office of Emergency Services

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



**Community Wildfire Safety Program
Regional Working Group Summary Sheet**

MEETING INFORMATION		
Region: Bay Area	Quarter: Q1 2022	Meeting Date: 3/25

INFORMATION REQUESTS / FOLLOW-UP ITEMS			
Description	Owner	Recipient	Status
Can PG&E navigate us to a process flowchart or decision tree in other existing submittals? We would be interested in visualizing the thinking process and decision analysis when PG&E compares alternatives to UG, among other system hardening or other solutions/options.	Andrew Ace	Joyce Steingass, California Public Utilities Commission	In Progress
Schedule follow up meeting regarding PSPS, EPSS, undergrounding and other wildfire safety efforts.	Sarina Uriza, Lauren Wilson, Francisco Salguero	Peter Levitt, Peninsula Clean Energy	In Progress
Could you make available the exact locations where undergrounding will occur in each county?	Sarina Uriza, Lauren Wilson, Francisco Salguero	Peter Levitt, Peninsula Clean Energy	In Progress
Can the backup power transfer meter program be made available to those living within one mile of HFTD areas?	Nav Gill	Ron Halog, ILRSCC	In Progress
I would also like to get a map of the undergrounding efforts for Contra Costa County.	Nav Gill	Ron Halog, ILRSCC	In Progress

FEEDBACK / LESSONS LEARNED	
Topic	Summary
2022 Wildfire Mitigation Plan Update	<ul style="list-style-type: none"> N/A
Community Wildfire Safety Program Update	<ul style="list-style-type: none"> N/A

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

FEEDBACK / LESSONS LEARNED	
Topic	Summary
Local Resilience Efforts – Undergrounding	<ul style="list-style-type: none"> • Outlined the criteria that PG&E uses for deciding when undergrounding should be utilized vs. other mitigation efforts. • A participant asked PG&E to define and expand upon the meaning of the term Joint Pole Tenants, including what it means for these tenants if PG&E undergrounds their lines only. • The potential to underground service drops and all other lines was discussed.
Local Resilience Efforts – EPSS	<ul style="list-style-type: none"> • Discussed potential for turning EPSS circuits on and off based on real time weather conditions, especially in coastal areas. • A participant asked if customers outside of Tier 2 and Tier 3 areas could be impacted by EPSS. • Customer notifications for EPSS were discussed and outlined. • A series of questions were asked regarding the differences between EPSS and PSPS, including whether EPSS made communities less likely to experience a PSPS event. • Costs associated to EPSS were outlined (reclosers, staffing, etc.). • Potential EPSS outage duration (maximum/minimum) was expanded upon.
Local Resilience Efforts – Microgrids, Remote Grids and Backup Generation	<ul style="list-style-type: none"> • A participant asked for additional feedback regarding the diminishing scale of PSPS events and if there is a reasonable baseline to assume from year to year as far as outage frequency/size is concerned.
Local Resilience Efforts – Customer Resources	<ul style="list-style-type: none"> • A request was made by a participant that PG&E consider expanding the backup power transfer meter program to customers within a certain mileage of HFTD areas based on potential incidental impacts to their electric service. • Access and Functional Needs representatives expressed thanks for the upcoming EPSS CBO workshop.
Resilience Planning Flyover	<ul style="list-style-type: none"> • N/A
Open Discussion/Q&A	<ul style="list-style-type: none"> • Discussed changes to the line down approach during winter storms based on past experiences and the staffing changes that were made to support this updated approach.

MEETING PARTICIPANTS (37)		
Name	Title	Agency
Nelson Alegria		Alameda County Office of Education
Alicia Masri		Alameda County Office of Education
Lisa Austin		California Foundation for Independent Living Centers

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

MEETING PARTICIPANTS (37)

Name	Title	Agency
Megan Cowdell		California Foundation for Independent Living Centers
Desmond Lew		California Public Utilities Commission
Daniel Tutt		California Public Utilities Commission
Mabel Wu		California Public Utilities Commission
Hassan Jahami		California Public Utilities Commission
Noll, Anthony Noll		California Public Utilities Commission
Will Dundon		California Public Utilities Commission
Rosanne Ratkiewich		California Public Utilities Commission
Henry Sweat		California Public Utilities Commission
Joan E. Weber		California Public Utilities Commission
Hope Christman		California Public Utilities Commission
Shelby Chase		California Public Utilities Commission
Joyce Steingass		California Public Utilities Commission, Energy Division
Edward Trinh		City and County of San Francisco
Olga Crowe		City of Oakland
Zack Adinoff		City of Oakland Emergency Management Services Division
Kyle Trambley		City of Oakland Emergency Management Services Division
	Duty Officer	City of San Francisco Department of Emergency Management
Ed Barberini		City of San Mateo
Kim Springer		City/County Association of Governments of San Mateo County
Michael Galvan		Community Resources for Independent Living
Donald Mattei		County of San Mateo
Nacho Mendoza	Manager of Water Operations	Diablo Water District
Cait Cady		East Bay Clean Energy
Joe Medici		Golden Gate Regional Center
Ron Halog		Independent Living Resources of Solano & Contra Costa Counties
Leslie Brown		Peninsula Clean Energy
Peter Levitt		Peninsula Clean Energy
Daniel Belville		San Mateo County
Justin Clayden		T-Mobile
Andy Spanhak	West Region Disaster	T-Mobile

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

MEETING PARTICIPANTS (37)		
Name	Title	Agency
	Recovery Manager	
Jimmy Luu		T-Mobile
Ray Robertson		T-Mobile
Russ Thompson		T-Mobile

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

Attachment 2

**Agenda and Presentations for the First Quarter 2022,
Regional Working Groups (including Resiliency Workshop)**

From: [Ace, Andrew](#)
To: Shelby.chase@cpuc.ca.gov
Cc: [Olinek, Spencer](#)
Bcc: [Martinez, Susie](#)
Subject: RE: Addition to Working Group/Advisory Board Meeting Invite List
Date: Wednesday, March 9, 2022 1:06:00 PM
Attachments: [PG&E First Quarter Bay Area Regional Working Group Meeting.ics](#)
[PG&E First Quarter Central Valley Regional Working Group Meeting.ics](#)
[PG&E First Quarter North Coast Regional Working Group Meeting.ics](#)
[PG&E First Quarter South Bay Central Coast Regional Working Group Meeting.ics](#)
[PG&E North Valley-Sierra Region Wildfire Safety Working Group.ics](#)

Hello Shelby,

Attached are the five calendar invites for the upcoming Q1 PSPS Regional Working Groups. I have also added you to the distribution list for future invites as well.

Best,

Andrew Ace

Electric Program Manager, Expert | Liaison and Regulatory Operations and Engagement
(415) 290-6760
andrew.ace@pge.com

From: Chase, Shelby <Shelby.Chase@cpuc.ca.gov>
Sent: Wednesday, March 9, 2022 12:53 PM
To: Olinek, Spencer <WSO3@pge.com>
Subject: Addition to Working Group/Advisory Board Meeting Invite List

*******CAUTION: This email was sent from an EXTERNAL source. Think before clicking links or opening attachments.*******

Good Afternoon Spencer,

Can you please add me to the distribution list for invites to PG&E's PSPS quarterly working group and advisory board meetings? Thank you!

Best,

Shelby Chase

Analyst
Wildfire Safety and Enforcement Branch
Safety and Enforcement Division
California Public Utilities Commission
(415) 793-1834 | Shelby.chase@cpuc.ca.gov

Ace, Andrew

Subject: PG&E North Valley-Sierra Region Wildfire Safety Working Group
Location: Microsoft Teams Meeting

Start: Wed 3/23/2022 1:30 PM
End: Wed 3/23/2022 3:00 PM

Recurrence: (none)

Meeting Status: Accepted

Organizer: Monninger, James

Required Attendees Monninger, James; Brian@FREED.org; RonH@ilrsc.org; april@ril-sacramento.org; susanr@ilrsc.org; carly@FREED.org; evan@actionctr.org; WendyL@actionctr.org; carolyn@actionctr.org; aaron@drail.org; tanja@drail.org; thomasm@nbrc.net; wdoerning@farnorthernrc.org; jharston@psrec.coop; electric@gridley.ca.us; mbertolino@roseville.ca.us; chuckh@pioneercommunityenergy.ca.gov; randy.howard@ncpa.com; jared.sonne@wavebroadband.com; margaret.digenova@amwater.com; nmcwilliams@sidwater.org; MVignau@Sidwater.Org; MHobbs@Sidwater.Org; ahamilton@pcwa.net; bsmith@pcwa.net; dcorcoran@eid.org; dreintjes@pcwa.net; jsutton@tccanal.com; jshepard@pcwa.net; jimroberts@delorowater.com; rmarino@calwater.com; districtmanager@burneywater.org; catherine.stedman@amwater.com; christopher.cook@amwater.com; mike.magretto@amwater.com; richard.saldivar@amwater.com; rjones@countyofcolusa.com; jbell@countyofcolusa.com; atravis@countyofglenn.net; HawkinsM@SacOES.Org; cantelmes@sacoes.org; dlryan@solanocounty.com; Dana.Carey@yolocounty.org; crawfordt@edso.org; YRodrigu@placer.ca.gov; cdunsmoor@buttecounty.net; Eldoradoes@edso.org; auwaem@edso.org; Lassen.oes@fire.ca.gov; steve.monaghan@co.nevada.ca.us; Jenn.tamo@co.nevada.ca.us; placeroes@placer.ca.gov; hpowers@placer.ca.gov; spratt@placer.ca.gov; cwingfield@pcso.net; pcourtright@pcso.net; Paul.Cummings@co.nevada.ca.us; rsandbloom@co.shasta.ca.us; drenfer@co.shasta.ca.us; lbrown@sierracounty.ca.gov; zhamill@co.sutter.ca.us; ahoughtby@tehamaso.org; sbryan@co.yuba.ca.us; bhaberman@co.yuba.ca.us; cbardwell@co.calaveras.ca.us; eric.zane@cityofwoodland.org; mortont@edso.org; Patsy.Gasca@redcross.org; Byron.Berhel@cityofvallejo.net; bmesker@co.tehama.ca.us; datkinso@placer.ca.gov; jkiser@ci.anderson.ca.us; Rott@buttecounty.net; sboston@buttecounty.net; CZoppi@countyofglenn.net; Rebecca.Boyles@valleycleanenergy.org; AlexiaR@PioneerCommunityEnergy.ca.gov; creigm@enterpriserancheria.org; glendan@enterpriserancheria.org; jencinas@auburnrancheria.com; fsteele@berrycreekrancheria.com; Benjamin.Clark@mooretown.org; matthew.hatcher@mooretown.org; cww281@gmail.com; dgomez@colusa-nsn.gov; tribalchairperson@ssband.org; jcamp@auburnrancheria.com; pallen@greenvillerancheria.com; acazares43@yahoo.com; amartin@greenvillerancheria.com; mdelgado@ssband.org; agnesgonzalez1010@gmail.com; TLaughlin@pitrivertribe.org; Sandyl@redding-rancheria.com; Robk@redding-rancheria.com; michelleH@redding-rancheria.com; rramirez@yochadehe-nsn.gov; jg266q@att.com; brian_bottari@comcast.com; Joseph_Leto@comcast.com; Charlie.Born@ftr.com; sswatosh@mediacomcc.com; justin.clayden1@t-mobile.com; Chris.Balfour@uscellular.com; Gennie.Barr@verizonwireless.com; maureen.cruzen@verizonwireless.com; Lisa@cfilc.org; LCA3coolbeans@gmail.com; Megan@cfilc.org; christina@cfilc.org; nsheriff@buchalter.com; xuan.chen@cpuc.ca.gov; mabel.wu@cpuc.ca.gov; marybeth.farley@energysafety.ca.gov; nvp@cpuc.ca.gov; Naveed.paydar@cpuc.ca.gov; stephanie.green@cpuc.ca.gov; anthony.noll@cpuc.ca.gov; Drucilla.Dunton@cpuc.ca.gov; quang.pham@energysafety.ca.gov; steven.klaiber@cpuc.ca.gov; mahdi.jahami@energysafety.ca.gov; christopher.moore@cpuc.ca.gov; ShivaniS@FilsingerEnergy.com; tomp@filsingerenergy.com; Wilson,

Required Attendees: Joe; Cabiness Jr., Jason; Alison Feliz; Stangeland, Brent; Lee, Jeffrey; Sanders, Brandon; Blair, Dan; Shemanski, Denise; Franklin, Reno; Ace, Andrew; Martinez, Susie; jennifer@keadjian.com; stacy@keadjian.com; matt@keadjian.com; elizabethcox@keadjian.com; julia@keadjian.com

Optional Attendees: Greg Almos; Michelle Hayward; Jason Hart; Hawkins, Matthew; Jason Harston; Edward Falkenstein; Mark Riffey; Berbena Jr., Felix; Jubb, Bill; Dosanjh Gill, Navjit

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Wan, Lisa

Subject: PG&E First Quarter Central Valley Regional Working Group Meeting
Location: Microsoft Teams Meeting

Start: Wed 3/23/2022 9:30 AM
End: Wed 3/23/2022 11:00 AM

Recurrence: (none)

Meeting Status: Accepted

Organizer: Race, Greg

Required Attendees: adam.amaral@countyofmerced.com; AOrtiz@fresnocountyca.gov; gitorres@fresnocountyca.gov; gregory.padilla@fire.ca.gov; aaron@drail.org; tanja@drail.org; heather@drail.org; jan@ilcofkerncounty.org; josephs@ilcofkerncounty.org; jimmie@ilcofkerncounty.org; sgamez@ricv.org; CMix@vmrc.net; kkhhuu@kernrc.org; shannon.mulhall@fresno.gov; hnormen@ricv.org; frankl@volcanotel.com; michaelm@stcg.net; eyanl@STCG.net; anthonyS@STCG.NET; Dana.Ferreira@mid.org; Melissa.williams@mid.org; dmanguiano@tid.org; mareimers@tid.org; mjensen@mercedid.org; ssgill@tid.org; randy.howard@ncpa.com; info@lakealpinewater.com; rferriera@amadorwater.org; c.hickernell@friantwater.org; EPattison@tudwater.com; kmccusker@calwater.com; mpud@sti.net; tminder@alpineso.com; jnavarre@amadorgov.org; acarroll@mariposacounty.org; josbourn@co.calaveras.ca.us; kaustin@fresnocountyca.gov; kpackard@mariposacounty.org; Brandon.Pursell@fresnosheriff.org; gdelacerda@fresnocountyca.gov; scrump@fresnocountyca.gov; Amanda.Verhaege@co.kings.ca.us; tpogue@maderacounty.com; jwilder@maderacounty.com; jbriese@mariposacounty.org; wsmith@mariposacounty.org; david.scheurich@fire.ca.gov; jeremy.rahn@fire.ca.gov; Ron.CenCalCops@gmail.com; wbenson@kerncountyfire.org; slima@sjgov.org; WILLIAMSSH@stanoes.com; rmurdock@stanoes.com; Alockman@tularehhsa.org; Kathy.Curtice@fresnosheriff.org; garmstrong@kerncountyfire.org; Patsy.Gasca@redcross.org; molivarria@amadorgov.org; ykimball@ci.jackson.ca.us; dmackey@ci.jackson.ca.us; HSandman@amadorgov.org; dpomaville@co.fresno.ca.us; rle@edms-llc.com; dcharley2016@gmail.com; smurray@mewuk.com; Jtgonzales@tejonindiantribe-nsn.gov; mike@buenavistatribe.com; lkipp@bsrnation.com; fbeihn@nfr-nsn.gov; info@chukchansi-nsn.gov; Lmathiesen@crtribal.com; Mfox@crtribal.com; flo_dick@dunlapmono.org; rwgoode911@hotmail.com; Andrea@mewuk.com; jer.mcgowan@gmail.com; asavery@TID.ORG; jg266q@att.com; brian_bottari@comcast.com; Joseph_Leto@comcast.com; Charlie.Born@ftr.com; sswatosh@mediacomcc.com; justin.clayden1@t-mobile.com; Chris.Balfour@uscellular.com; Gennie.Barr@verizonwireless.com; maureen.cruzen@verizonwireless.com; Lisa@cfilc.org; LCA3coolbeans@gmail.com; Megan@cfilc.org; christina@cfilc.org; Brian@FREED.org; aprild@ril-sacramento.org; nsheriff@buchalter.com; xuan.chen@cpuc.ca.gov; mabel.wu@cpuc.ca.gov; marybeth.farley@energysafety.ca.gov; nvp@cpuc.ca.gov; Naveed.paydar@cpuc.ca.gov; stephanie.green@cpuc.ca.gov; anthony.noll@cpuc.ca.gov; Drucilla.Dunton@cpuc.ca.gov; quang.pham@energysafety.ca.gov; steven.klaiber@cpuc.ca.gov; mahdi.jahami@energysafety.ca.gov; christopher.moore@cpuc.ca.gov; ShivaniS@FilsingerEnergy.com; tomp@filsingerenergy.com; Simes, Joshua; Hiyama, Angela; Mills, Deron; Charlotte Jordan; Alonzo, Nathan; Cabrera, Erica (EACU@pge.com);

Required Attendees: Shemenski, Denise; Franklin, Reno; Ace, Andrew; Martinez, Susie; jennifer@keadjian.com; stacy@keadjian.com; matt@keadjian.com; elizabethcox@keadjian.com; julia@keadjian.com; Mike.vanlobensels@fire.ca.gov

Optional Attendees: Heyer, Tiffany [OES]; Mike DeSpain; Bottari, Brian; Heather Santos; jbellotti@amadorgov.org; George, Dylan

All,

You are invited to participate in the next PG&E Central Valley Regional Working Group on Wednesday, March 23, 2022, from 9:30-11:00 AM. Meeting details are outlined below, and we will provide an agenda closer to the meeting date.

Discussion topics for this meeting will include:

- Public Safety Power Shutoff (PSPS) Updates
- 2022 Wildfire Mitigation Plan Updates
- Local Resilience Efforts – Undergrounding, EPSS, Microgrids
- Local Resilience Planning Session

DATE	TIME	MEETING LINK	DIAL-IN
Wednesday, March 23, 2022	9:30 – 11:00 a.m.	Click here to join the meeting	+1 415-906-0873,446143310#

We look forward to continuing to work with you to identify areas where we can minimize the impacts of PSPS on our customers and communities.

Please reach out to me if you have any additional questions ahead of the meeting, I look forward to speaking with you soon.

Thank you,

Greg Race

Microsoft Teams meeting

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Or call in (audio only)

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Phone Conference ID: 866 842 097#

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Need Help with Teams? Click on the Help option in this invite to connect you directly to our Teams at PG&E Training site!

Wan, Lisa

Subject: PG&E First Quarter North Coast Regional Working Group Meeting

Start: Thu 3/24/2022 9:30 AM
End: Thu 3/24/2022 11:00 AM

Recurrence: (none)

Meeting Status: Accepted

Organizer: Sharp, Austin

Required Attendees: asbrown@mysdsc.org; WendyL@actionctr.org; carolyn@actionctr.org; eddie@tilinet.org; adam@mysdsc.org; taylorcurtis@mysdsc.org; Eli@marincil.org; psp@marincil.org; evan@actionctr.org; kareng@fftfoodbank.org; AMedina@redwoodcoastrc.org; Crystal.Markytan@lakecountyca.gov; thomasm@nbrc.net; jared.sonne@wavebroadband.com; shawn.thomas@wavebroadband.com; mgrandi@cityofukiah.com; scott.harther@lakecountyca.gov; jeldredge@cityofnapa.org; margaret.digenova@amwater.com; steve.girard@scwa.ca.gov; richard.saldivar@amwater.com; psellier@marinwater.org; rmarino@calwater.com; catherine.stedman@amwater.com; christopher.cook@amwater.com; mike.magretto@amwater.com; rderby@co.humboldt.ca.us; dale.carnathan@lakecountyca.gov; gavin.wells@lakecountyca.gov; blaserb@mendocinocounty.org; leah.greenbaum@countyofnapa.org; christopher.godley@sonoma-county.org; emergency-management@sonoma-county.org; Sam.wallis@sonoma-county.org; jeff.duvall@sonoma-county.org; eprestley@trinitycounty.org; wbaker-cohn@marinsheriff.org; creilly@MarinSheriff.org; Geoff.Belyea@fire.ca.gov; swestrop@srcity.org; Darin.White@cityofsanrafael.org; bnmiller@srcity.org; astruckmann@schsd.org; dunawp@schsd.org; jnutt@srcity.org; Jsmith@fortbragg.com; Lars.Ewing@lakecountyca.gov; Steven.Lederer@countyofnapa.org; Erica Torgerson; mslackerelli@redwoodenergy.org; MMarshall@redwoodenergy.org; lheadley@mcecleanenergy.org; hshepard@mcecleanenergy.org; dbarnes@yuroktribe.nsn.us; battebery@karuk.us; jsaxon@karuk.us; ssteinbring@karuk.us; shayden@karuk.us; bmobbs@bluelakerancheria-nsn.gov; jgd119@humboldt.edu; Jw.hoopa.property@outlook.com; hvtcsecretary@hoopa-nsn.gov; everett.colegrove@hoopa-nsn.gov; streppa@hpultribe-nsn.gov; jsimon@middletownrancheria.com; bcromwell@rrcbc-nsn.gov; ChrisW@drycreekrancheria.com; lross@gratonrancheria.com; president@rvit.org; sjelliott@hoplandtribe.com; dbillyelliott@ymail.com; tribalchairman@coyotevalley-nsn.gov; mjnorris@cahtotribe-nsn.gov; jg266q@att.com; Bottari, Brian; Joseph_Leto@comcast.com; Charlie.Born@ftr.com; sswatosh@mediacomcc.com; justin.clayden1@t-mobile.com; Chris.Balfour@uscellular.com; Gennie.Barr@verizonwireless.com; maureen.cruzen@verizonwireless.com; Lisa@cfilc.org; LCA3coolbeans@gmail.com; Megan@cfilc.org; christina@cfilc.org; Brian@FREED.org; aprild@ril-sacramento.org; nsheriff@buchalter.com; xuan.chen@cpuc.ca.gov; marybeth.farley@energysafety.ca.gov; nvp@cpuc.ca.gov; Naveed.paydar@cpuc.ca.gov; stephanie.green@cpuc.ca.gov; anthony.noll@cpuc.ca.gov; Drucilla.Dunton@cpuc.ca.gov; quang.pham@energysafety.ca.gov; steven.klaiber@cpuc.ca.gov; ShivaniS@FilsingerEnergy.com; tomp@filsingerenergy.com; Richardson, Ronald; Leyba, John; Schoenhofer, Carl; Noonan, Rich; Hotchkiss, David; Van Gorder, Mark; Talbott, Alison; Shemenski, Denise; Franklin, Reno; Ace, Andrew; Martinez, Susie; Jennifer Hayes;

Required Attendees:

Stacy Lee; Matt Maltbie; elizabethcox@keadjian.com; Julia Maniccia

Optional Attendees:

Steven Girard; jared.sonne@astound.com; Leah Sautelet; Jacqueline Nushi; shawn.thomas@astound.com; Paula Glodowski Valla

All,

You are invited to participate in the next PG&E North Coast Regional Working Group on Thursday, March 24, 2022, from 9:30-11:00 AM. Meeting details are outlined below, and we will provide an agenda closer to the meeting date.

Discussion topics for this meeting will include:

- Public Safety Power Shutoff (PSPS) Updates
- 2022 Wildfire Mitigation Plan Updates
- Local Resilience Efforts – Undergrounding, EPSS, Microgrids
- Local Resilience Planning Session

DATE	TIME	MEETING LINK	DIAL-IN
Thursday, March 24, 2022	9:30 – 11:00 a.m.	Click here to join the meeting	+1 415-906-0873,467661287# United States, San Francisco Phone Conference ID: 467 661 287#

We look forward to continuing to work with you to identify areas where we can minimize the impacts of PSPS on our customers and communities.

Please reach out to me if you have any additional questions ahead of the meeting, I look forward to speaking with you soon.

Thank you,

Austin Sharp

Note, this Regional Working Group meeting addresses requirements from both the PSPS OIR Phase 2 and Phase 3 Decisions as well as the Microgrid OIR.

Ace, Andrew

Subject: PG&E First Quarter South Bay/Central Coast Regional Working Group Meeting
Location: Microsoft Teams Meeting

Start: Thu 3/24/2022 1:30 PM
End: Thu 3/24/2022 3:00 PM

Recurrence: (none)

Meeting Status: Accepted

Organizer: Mullen, Patrick

Required Attendees: Reno.Ditulliojr@fire.ca.gov; George.nunez@fire.ca.gov; bobc@cupertino.org; ckarwick@svpower.com; kevin.oconnor@sanjoseca.gov; ray.riordan@sanjoseca.gov; jay.mcamis@sanjoseca.gov; Dlivingston@campbellca.gov; thomasc@cupertino.org; Andrew.Young@cityofgilroy.org; ahepenstal@losaltosca.gov; ccahill@losaltoshills.ca.gov; aandrews@losgatosca.gov; tcharlop@ci.milpitas.ca.gov; steve@cityofmontesereno.org; jennifer.ponce@morganhill.ca.gov; robert.maitland@mountainview.gov; kenneth.dueker@cityofpaloalto.org; lschoenthal@santaclaraca.gov; cbothelio@saratoga.ca.us; namaro@sunnyvale.ca.gov; dmoskowitz@sunnyvale.ca.gov; golson@slofoodbank.org; Jcabrera@CCCIL.org; jruiz@ccil.org; jgriffin@ilrc-trico.org; lutterback@ilrc-trico.org; eddie@liveunitedsbc.org; fvalenzuela@sarc.org; hwennergren@tri-counties.org; don.bray@svcleanenergy.org; Zachary.Struyk@sanjoseca.gov; malaisg@co.monterey.ca.us; kmangano@cosb.us; lisa.ehret@oem.sccgov.org; Linj1@co.monterey.ca.us; ScanlonK@co.monterey.ca.us; mmitchell@cosb.us; sjalbert@co.slo.ca.us; khubbard@sbcoem.org; oesduty@co.slo.ca.us; dana.reed@oem.sccgov.org; Darrell.Ray@oem.sccgov.org; David.Reid@santacruzcounty.us; michael.beaton@santacruzcounty.us; michael.bennett@santacruzcounty.us; bob.martindelcampo@hollister.ca.gov; jstornetta@prcity.com; dsargenti@mcrfd.org; mharris@bigsurfire.org; Woody.Enos@sbcfire.com; keith.m.siuda@nasa.gov; firechaser4cdf@gmail.com; clarkD@co.monterey.ca.us; S_MICKELSON@ci.lompoc.ca.us; Patsy.Gasca@redcross.org; randy.howard@ncpa.com; marcos.santiago@sanjoseca.gov; mark.bachman@sanjoseca.gov; vlopez@amahmutsun.org; wwyatt@santaynezchumash.org; tromero@santaynezchumash.org; rmarino@calwater.com; tfrancis@bawsca.org; Christinem@soquelcreekwater.org; christopher.cook@amwater.com; jfurtado@slvwd.com; mike.magretto@amwater.com; ngillespie@slvwd.com; richard.saldivar@amwater.com; rrogers@slvwd.com; agordon@valleywater.org; jg266q@att.com; brian_bottari@comcast.com; Joseph_Leto@comcast.com; Charlie.Born@ftr.com; sswatosh@mediacomcc.com; justin.clayden1@t-mobile.com; Chris.Balfour@uscellular.com; Gennie.Barr@verizonwireless.com; maureen.cruzen@verizonwireless.com; Lisa@cfilc.org; LCA3coolbeans@gmail.com; Megan@cfilc.org; christina@cfilc.org; Brian@FREED.org; aprild@ril-sacramento.org; nsheriff@buchalter.com; xuan.chen@cpuc.ca.gov; mabel.wu@cpuc.ca.gov; marybeth.farley@energysafety.ca.gov; nvp@cpuc.ca.gov; Naveed.paydar@cpuc.ca.gov; stephanie.green@cpuc.ca.gov; anthony.noll@cpuc.ca.gov; Drucilla.Dunton@cpuc.ca.gov; quang.pham@energysafety.ca.gov; steven.klaiber@cpuc.ca.gov; mahdi.jahami@energysafety.ca.gov; christopher.moore@cpuc.ca.gov; ShivaniS@FilsingerEnergy.com; tomp@filsingerenergy.com; Alvarado, Teresa; Cedeno, Daniel; Morse, Rob; Roth, Stew; Crawford, Steven; Arnold, Jeana; Chiang, Bill; Shemenski, Denise; Franklin, Reno; Ace, Andrew; Martinez, Susie; jennifer@keadjian.com; stacy@keadjian.com; matt@keadjian.com; elizabethcox@keadjian.com; Julia Maniccia; Martinez-Smith, Alinda; Hall, Donald

Optional Attendees: Kelly Van Buren; Raymond Gomez; Anita Konopa; Pamela Leonard; Bob Cascone; Chris Karwick; Fraone, Frank; Dosanjh Gill, Navjit; Eddie Taylor; Salguero, Francisco

All,

Agenda and presentation slides attached.

You are invited to participate in the next PG&E South Bay/Central Coast Regional Working Group on Thursday, March 24, 2022, from 1:30-3:00 PM. Meeting details are outlined below, and we will provide an agenda closer to the meeting date.

Discussion topics for this meeting will include:

- Public Safety Power Shutoff (PSPS) Updates
- 2022 Wildfire Mitigation Plan Updates
- Local Resilience Efforts – Undergrounding, EPSS, Microgrids
- Local Resilience Planning Session

DATE	TIME	MEETING LINK	DIAL-IN
Thursday, March 24, 2022	1:30 – 3:00 p.m.	Click here to join the meeting	+1 415-906-0873,,973381620#

We look forward to continuing to work with you to identify areas where we can minimize the impacts of PSPS on our customers and communities.

Please reach out to me if you have any additional questions ahead of the meeting, I look forward to speaking with you soon.

Thank you,

Pat Mullen

Note, this Regional Working Group meeting addresses requirements from both the PSPS OIR Phase 2 and Phase 3 Decisions as well as the Microgrid OIR.

Microsoft Teams meeting

Join on your computer or mobile app

[Click here to join the meeting](#)

Or call in (audio only)

[+1 415-906-0873,,973381620#](tel:+14159060873973381620) United States, San Francisco

Phone Conference ID: 973 381 620#

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[Learn More](#) | [Help](#) | [Meeting options](#)

Ace, Andrew

Subject: PG&E First Quarter Bay Area Regional Working Group Meeting
Location: Microsoft Teams Meeting

Start: Fri 3/25/2022 9:30 AM
End: Fri 3/25/2022 11:00 AM

Recurrence: (none)

Meeting Status: Accepted

Organizer: Salguero, Francisco

Required Attendees: RonH@ilrsc.org; Michael.Galvan@crilhayward.org; paulc@cidsanmateo.org; susanr@ilrsc.org; apyle@ggrc.org; bart@samaritanhousesanmateo.org; lkleinbub@rceb.org; info@eastbayinnovations.org; jared.sonne@wavebroadband.com; procos@alamedamp.com; randy.howard@ncpa.com; brett.kawakami@ebmud.com; jpiro@ccwater.com; nmendoza@diablwater.org; tfrancis@bawsca.org; Bouchardm@samtrans.com; sebezrobert@gmail.com; mgerh001@so.cccounty.us; kduenas@acgov.org; derrick.thomas@acgov.org; Lincoln.Casimere@acgov.org; pstokes@acgov.org; rkova@so.cccounty.us; OES-staff@so.cccounty.us; maryellen.carroll@sfgov.org; adrienne.bechelli@sfgov.org; bijan.karimi@sfgov.org; francis.zamora@sfgov.org; victor.lim@sfgov.org; demdutyofficer@sfgov.org; Jodi.traversaro@sfgov.org; dmattei@smcgov.org; jnorris@smcgov.org; bmolver@smcgov.org; skirkpatrick@smcgov.org; adelay@sanbruno.ca.gov; ebarberini@cityofsanmateo.org; ian.larkin@fire.ca.gov; larry.mares@flysfo.com; mduri@smcgov.org; mpigoni@ci.el-cerrito.ca.us; Patsy.Gasca@redcross.org; amasri@acoe.org; kspringer@smcgov.org; tim.wesig@acgov.org; bbalb@pw.cccounty.us; Abevington@sfgov.org; kbrezovec@ebce.org; lbrown@peninsulacleanenergy.com; hshepard@mcecleanenergy.org; andymejia@lyttonrancheriaofcalifornia.com; jg266q@att.com; brian_bottari@comcast.com; Joseph_Leto@comcast.com; Charlie.Born@ftr.com; sswatosh@mediacomcc.com; justin.clayden1@t-mobile.com; Chris.Balfour@uscellular.com; Gennie.Barr@verizonwireless.com; maureen.cruzen@verizonwireless.com; Lisa@cfilc.org; LCA3coolbeans@gmail.com; Megan@cfilc.org; christina@cfilc.org; Brian@FREED.org; aprild@ril-sacramento.org; nsheriff@buchalter.com; xuan.chen@cpuc.ca.gov; mabel.wu@cpuc.ca.gov; marybeth.farley@energysafety.ca.gov; nvp@cpuc.ca.gov; Naveed.paydar@cpuc.ca.gov; stephanie.green@cpuc.ca.gov; anthony.noll@cpuc.ca.gov; Drucilla.Dunton@cpuc.ca.gov; quang.pham@energysafety.ca.gov; steven.klaiber@cpuc.ca.gov; mahdi.jahami@energysafety.ca.gov; christopher.moore@cpuc.ca.gov; ShivaniS@FilsingerEnergy.com; tomp@filsingerenergy.com; Johnson, Aaron; Kniel, Karen; Ramirez, Tanya; Walsh, John; Fraone, Frank; Wilson, Lauren; Yoell, Sarah; Shemanski, Denise; Franklin, Reno; Ace, Andrew; Martinez, Susie; jennifer@keadjian.com; stacy@keadjian.com; matt@keadjian.com; elizabethcox@keadjian.com; julia@keadjian.com

Optional Attendees: Brian Balbas; jared.sonne@astound.com; Spott, Christina; Patlolla, Nikhil; Parker, Cia; Spanhak, Andy; Kurisunkal, Vivek; Putnam, Les; jfeil@oaklandca.gov; ocrowe@oaklandca.gov; zadinoff@oaklandca.gov; ktrambley@oaklandca.gov; 'dbelville@smcgov.org'; Regala, Roy; Dosanjh Gill, Navjit; Weber, Joan E.; Urhausen, Lauren

All,

You are invited to participate in the next PG&E Bay Area Regional Working Group on Friday, March 25, 2022, from 9:30-11:00 AM. Meeting details are outlined below. The following attachments provide a copy of the agenda and presentation material that we will cover.

Discussion topics for this meeting will include:

- Public Safety Power Shutoff (PSPS) Updates
- 2022 Wildfire Mitigation Plan Updates
- Local Resilience Efforts – Undergrounding, EPSS, Microgrids
- Local Resilience Planning Session

DATE	TIME	MEETING LINK	DIAL-IN
Friday, March 25 th , 2022	9:30 – 11:00 a.m.	Click here to join the meeting	+1 415-906-0873,,733219738#

We look forward to continuing to work with you to identify areas where we can minimize the impacts of PSPS on our customers and communities.

Please reach out to me if you have any additional questions ahead of the meeting, I look forward to speaking with you soon.

Thank you,

Francisco Salguero

Note, this Regional Working Group meeting addresses requirements from both the PSPS OIR Phase 2 and Phase 3 Decisions as well as the Microgrid OIR.

Microsoft Teams meeting

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Attachment 3

**E-mail to Commission Staff Notifying of the Dates for the First
Quarter 2022, Regional Working Groups
(including Resiliency Workshop)**

Community Wildfire Safety Program

Q1 2022 REGIONAL WORKING GROUP

Central Valley Region

March 23, 2022



Virtual Sign-In Reminder

Please “sign-in” using the chat function and provide your **name, organization and email.**



Safety

General Safety Tips



Identify two exit routes from your current work area in the event of a fire or other emergency.



“Drop, cover and hold” in the event of an earthquake.



Notify emergency services if you are in danger. You can also ask for help by putting a message in the chat function of this meeting.



Virtual Sign-In Reminder

Please “sign-in” using the chat function and provide your **name, organization and email**.

WORKING GROUP PARTICIPANTS:

- Access and Functional Needs Representatives
- City/County Staff
- Community-Based Organizations
- Community Choice Aggregators
- County Offices of Emergency Services
- Electric Co-Ops
- First Responders
- Health and Human Services Representatives
- Publicly Owned Electric Utilities
- Red Cross Staff
- Small, Multi-Jurisdictional Electric Utilities
- Telecommunications Providers
- Tribal Governments
- Water Agencies
- Filsinger Energy Partners
- California Public Utilities Commission Staff

DISCUSSION TOPICS:

1 2022 Wildfire Mitigation Plan Update

2 Community Wildfire Safety Program Update

3 Local Resilience Efforts

4 Local Resilience Planning Session

5 Resilience Planning Flyover

6 Open Discussion/Q&A

MEETING PRESENTERS

Greg Race | Division Lead

Nathan Alonzo | Local Government Affairs

Deron Mills | Public Safety Specialist

Reno Franklin | Tribal Liaison

Sgt. Joseph Wilder | County of Madera

2022 Wildfire Mitigation Plan Update



PG&E's Wildfire Mitigation Plan (WMP) was submitted on February 25 and outlines our actions to mitigate wildfire risk, this filing was an update of the 2020-2022 three-year plan submitted last year.

WMP Purpose

In compliance with California SB 901, AB 1054 and direction from the California's Office of Energy and Infrastructure Safety (OEIS), our WMP:

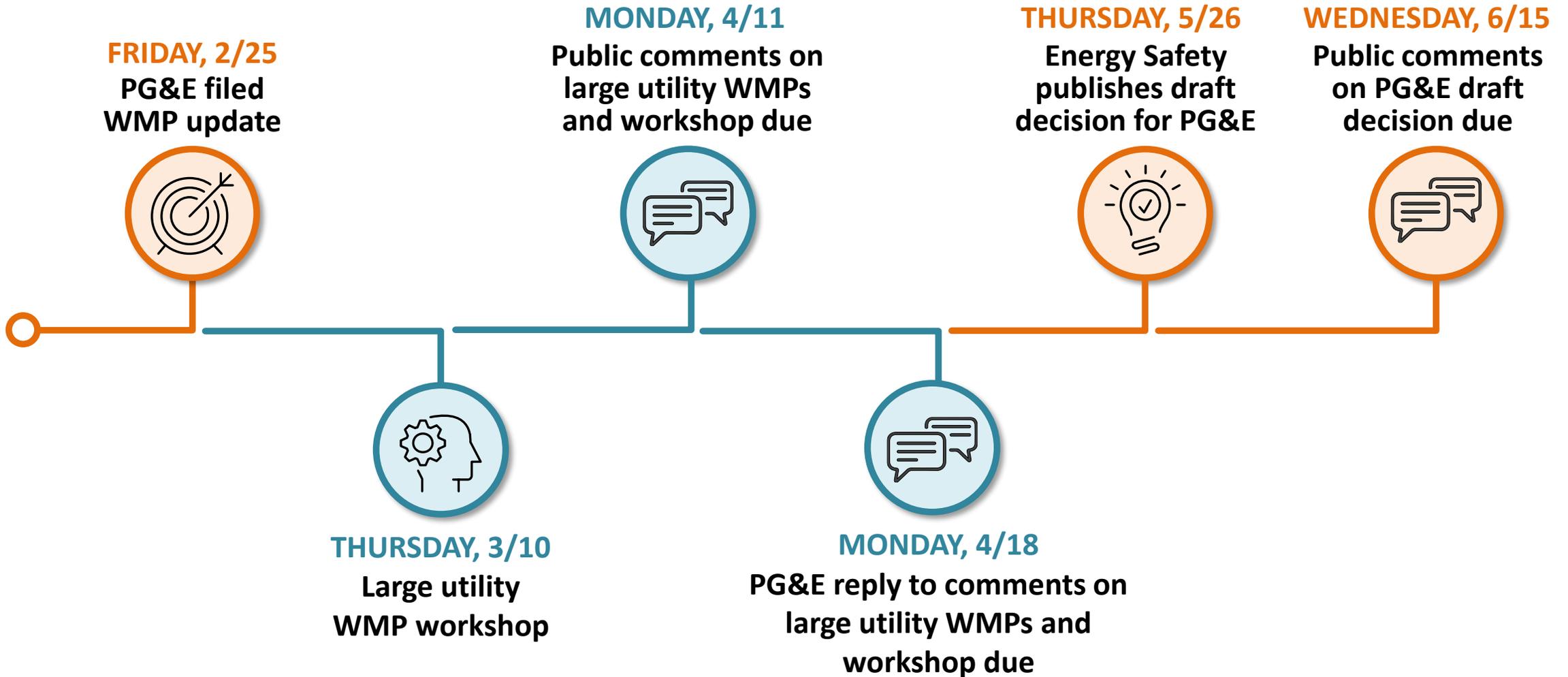
- ✔ Supports our ability to **mitigate wildfire risk**
- ✔ Aligns with strategic goals of **engaging with our stakeholders**
- ✔ Provides a **single source** for wildfire activities
- ✔ Fulfills **regulatory requirements**

Read the plan at

pge.com/wildfiremitigationplan



Important 2022 Wildfire Mitigation Plan Dates



Community Wildfire Safety Program Update



Key Wildfire Safety Objectives in 2022

Reduce Wildfire Potential



- **Prevent catastrophic wildfires** by rebuilding and modernizing the system
- **Lessen the frequency** of ignitions
- **Limit the spread** of potential ignitions
- **Focus efforts** on the highest risk locations

Reduce Customer Impact



- **Improve coordination** with, and support of, customers and hometowns
- **Reduce the number** of customers impacted by safety outages
- **Reduce the duration** of safety outages

Improve Situational Awareness

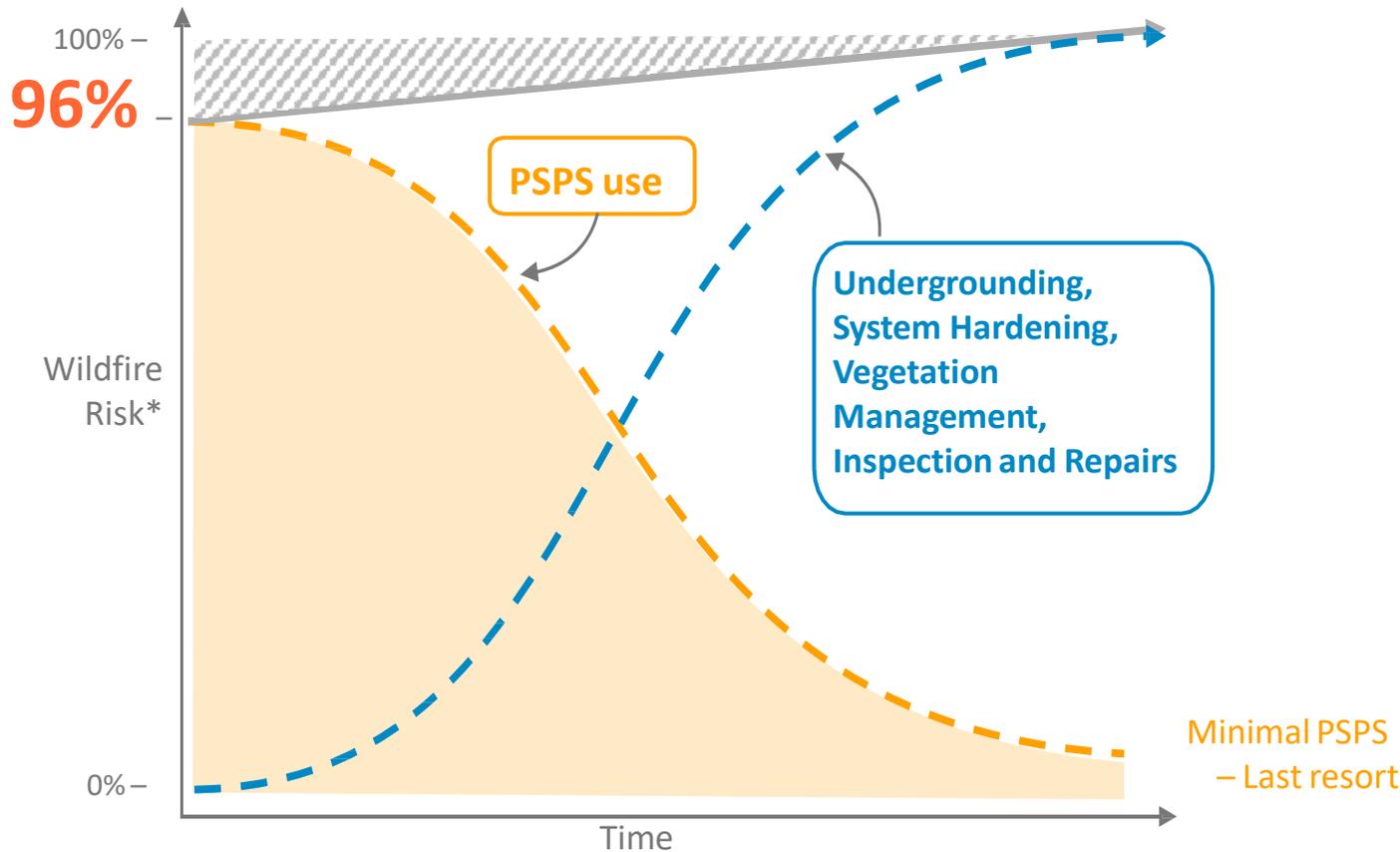


- **Enhance understanding** of where risk is located
- **Further refine weather modeling** and ability to detect wildfires
- **Improve our ability to capture and analyze data** from all hazards



Improving Public Safety Power Shutoffs

As we work to build the electric system of the future, with efforts like undergrounding and system hardening, Public Safety Power Shutoffs (PSPS) as a measure of last resort will continue to decline.



*Based on applying current PSPS protocols to catastrophic wildfires between 2012 and 2020, resulting in mitigating 96% of the structures impacted.

PSPS impacts have declined significantly through new, advanced technologies and improvements to the electric system infrastructure.

	2019	2020	2021
PSPS EVENTS	7	6	5
CUSTOMERS IMPACTED	2,014,000	653,000	80,400
DAMAGE/ HAZARDS	722	257	442
AVERAGE OUTAGE DURATION (HRS)	43	35	31
AVERAGE RESTORATION TIME (HRS)	17	10	12

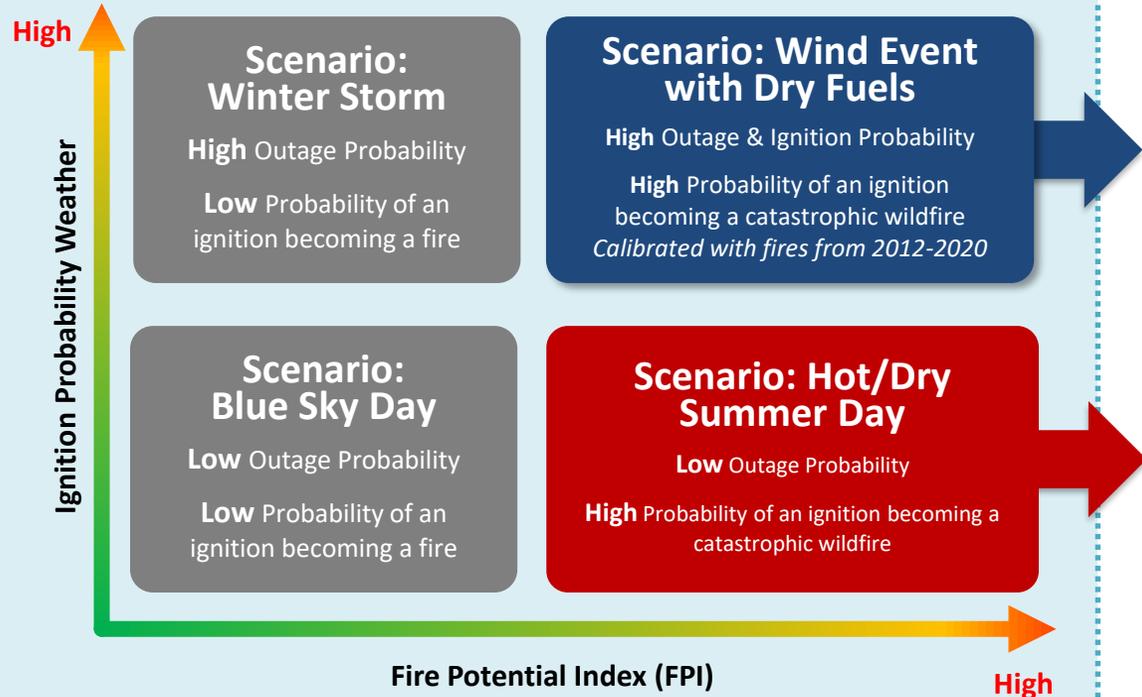
Data is approximate

Weather-Driven Wildfire Prevention Efforts



Year-Round Wildfire Mitigation

- Undergrounding
- System Hardening
- Enhanced Inspection and Repair



Weather-Driven Response

Public Safety Power Shutoff (PSPS)

Turning off power during severe weather to prevent tree branches and debris from contacting energized lines.

PSPS IN 2021

17% fewer outages*

88% fewer customers impacted*

2022 FOCUS

Continuing to refine program and reducing impacts in the areas at highest risk

Enhanced Powerline Safety Settings (EPSS)

Using equipment on powerlines that allows them to turn off power within one tenth of a second if a tree branch or object strikes the line.

EPSS IN 2021

In place on ~45% of HFTD circuit miles

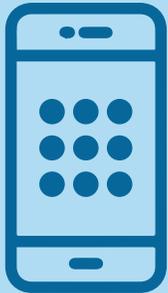
2022 FOCUS

Expanding to 100% of HFTD circuit miles

*Compared to 2020



Insert your questions or feedback into the chat function.



Ask your question or provide your feedback verbally by unmuting your line.



What else would you like to know about PG&E's recent Wildfire Mitigation Plan filing?

Local Resilience Efforts

Undergrounding

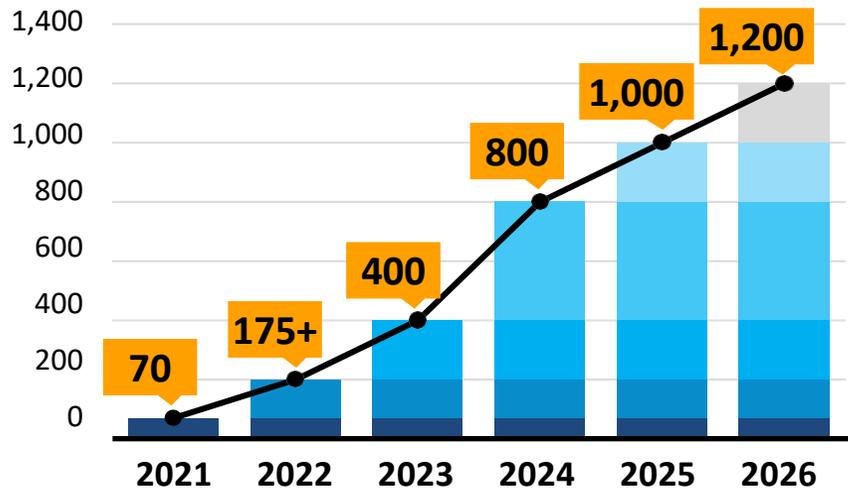




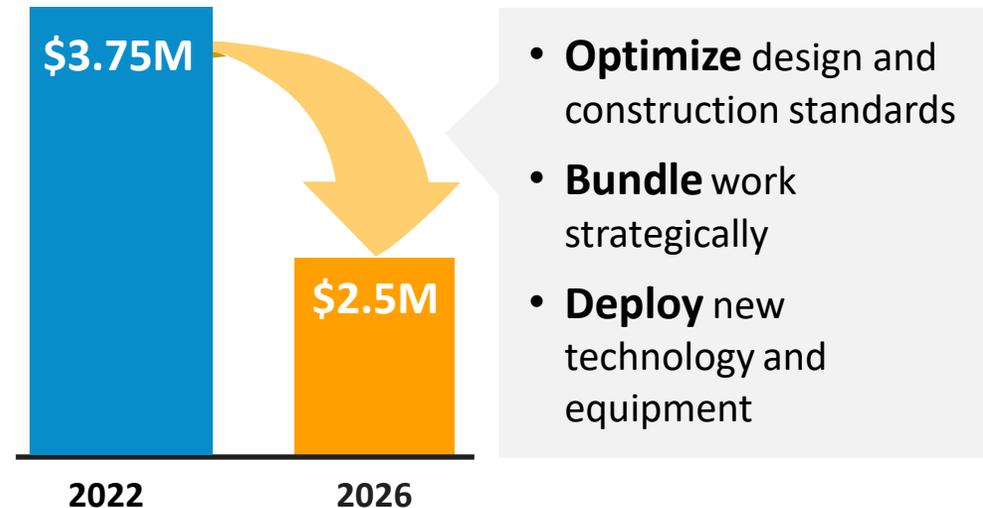
Undergrounding 10,000 Miles

PG&E is undertaking a major new initiative to underground approximately **10,000 miles of powerlines** in high fire risk areas.

Target Miles Per Year



Target Cost Per Mile



This commitment represents the largest effort in the U.S. to underground power lines as a wildfire risk mitigation measure.

Safe



Mitigates
Risk

Dependable



Reduces PSPS and EPSS
Improves Reliability

Sustainable



Saves Trees and Beautifies
our Hometowns

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

Underground Mile Identification Criteria

PG&E is identifying areas for our Undergrounding Program with a focus on Wildfire and PSPS risk reduction.
The below criteria is being used to identify miles for future projects:

Wildfire and PSPS Mitigation

- Probability & consequences of ignition
- PSPS impacts/reduction
- Public safety risk deduction
- Tree density
- Climate change

Integrated Planning

- Reliability risk reduction
- Impacts to other programs including vegetation management, EPSS, etc.
- Alternative solutions and routes
- Ingress/egress for evacuation & emergency responders

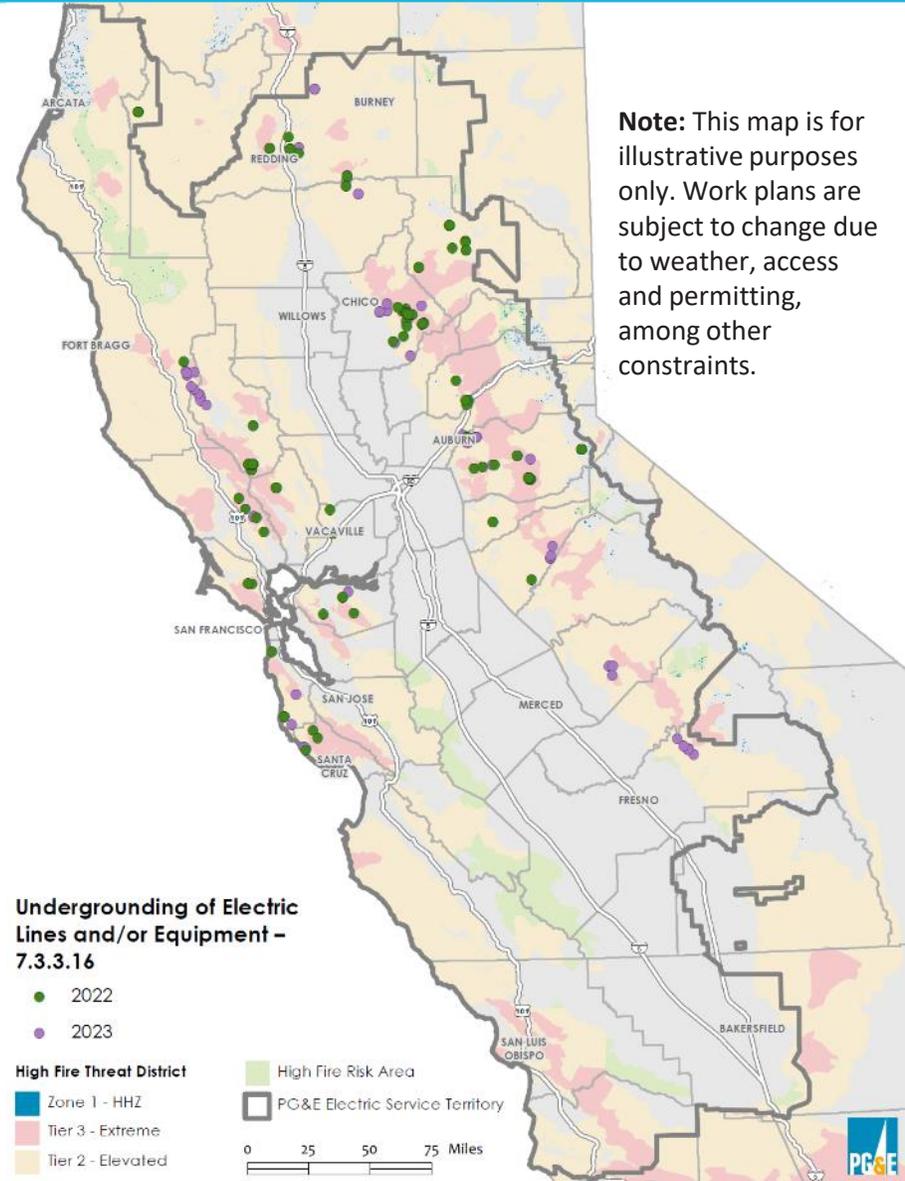
Constructability and Feasibility

- Longer runs & bundling work in connected areas
- Land rights & easements
- At grade/non-trench areas
- Cost of project

Central Valley Region 2022-2023 Undergrounding Work

Planned Undergrounding Miles Work in Central Valley Region	
COUNTY	2022-2023
Amador	2
Calaveras	9
Fresno	1
Mariposa	5

Data is as of 02/1/22 and does not include undergrounding work related to the California Public Utilities Commission's Rule 20 Program. Local work plans are subject to change.



Note: This map is for illustrative purposes only. Work plans are subject to change due to weather, access and permitting, among other constraints.

What Undergrounding May Look Like In Your Community

BEFORE

Powerlines above ground



AFTER

Primary lines underground





Undergrounding in Amador County

Strengthening the electric system by undergrounding our powerlines in and near high fire-threat areas.



**UNDERGROUNDING
PLANNED 2022-2023**

2 miles

Undergrounding

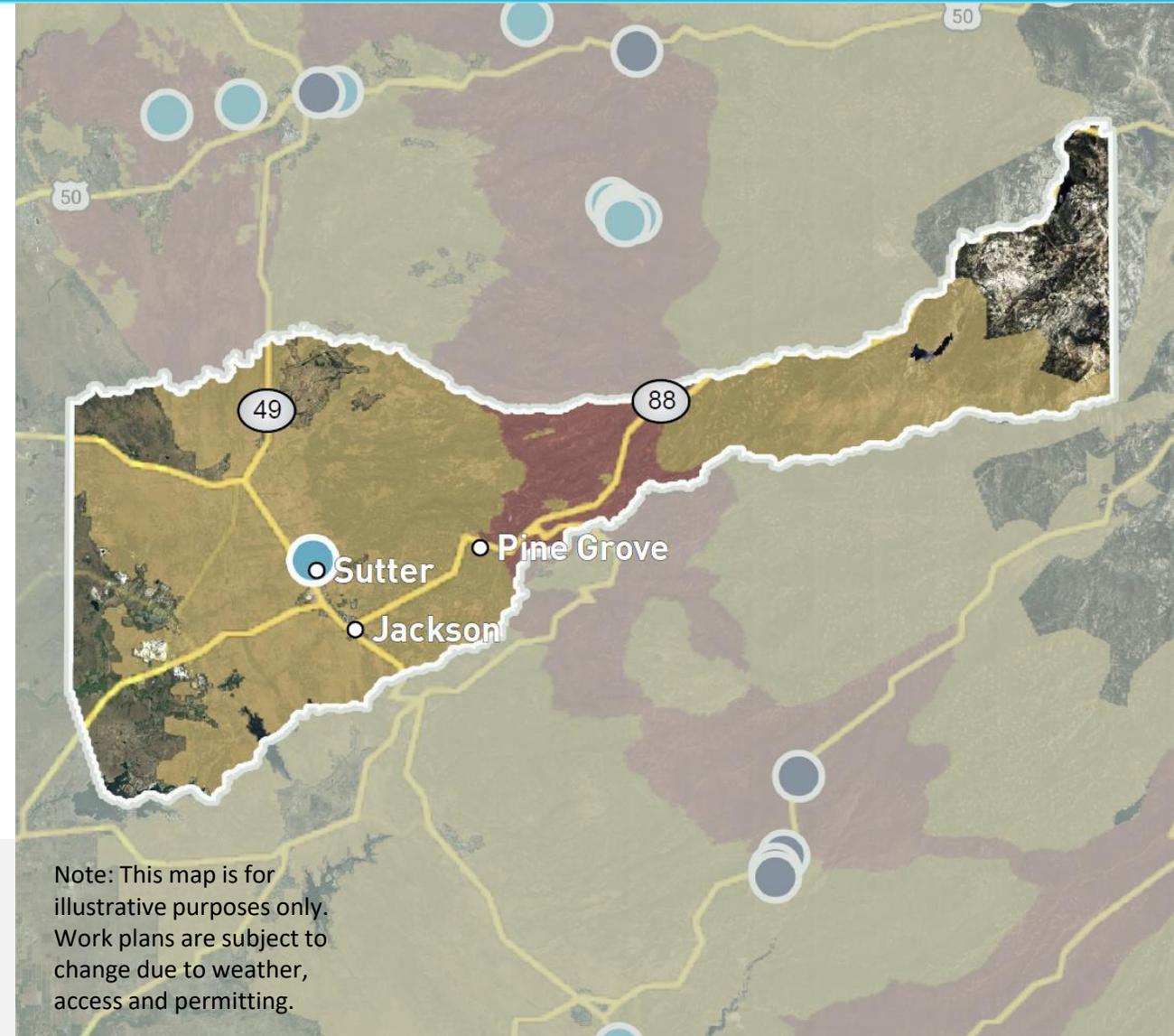
- 2022 Planned/Completed Miles
- 2023 Planned Miles

High Fire-Threat District

- Tier 3 - Extreme
- Tier 2 - Elevated

Learn more about our undergrounding efforts at

pge.com/systemhardening



Data is as of 02/1/22 and does not include undergrounding work related to the California Public Utilities Commission's Rule 20 Program.



Undergrounding in Calaveras County

Strengthening the electric system by undergrounding our powerlines in and near high fire-threat areas.



**UNDERGROUNDING
PLANNED 2022-2023**

9 miles

Undergrounding

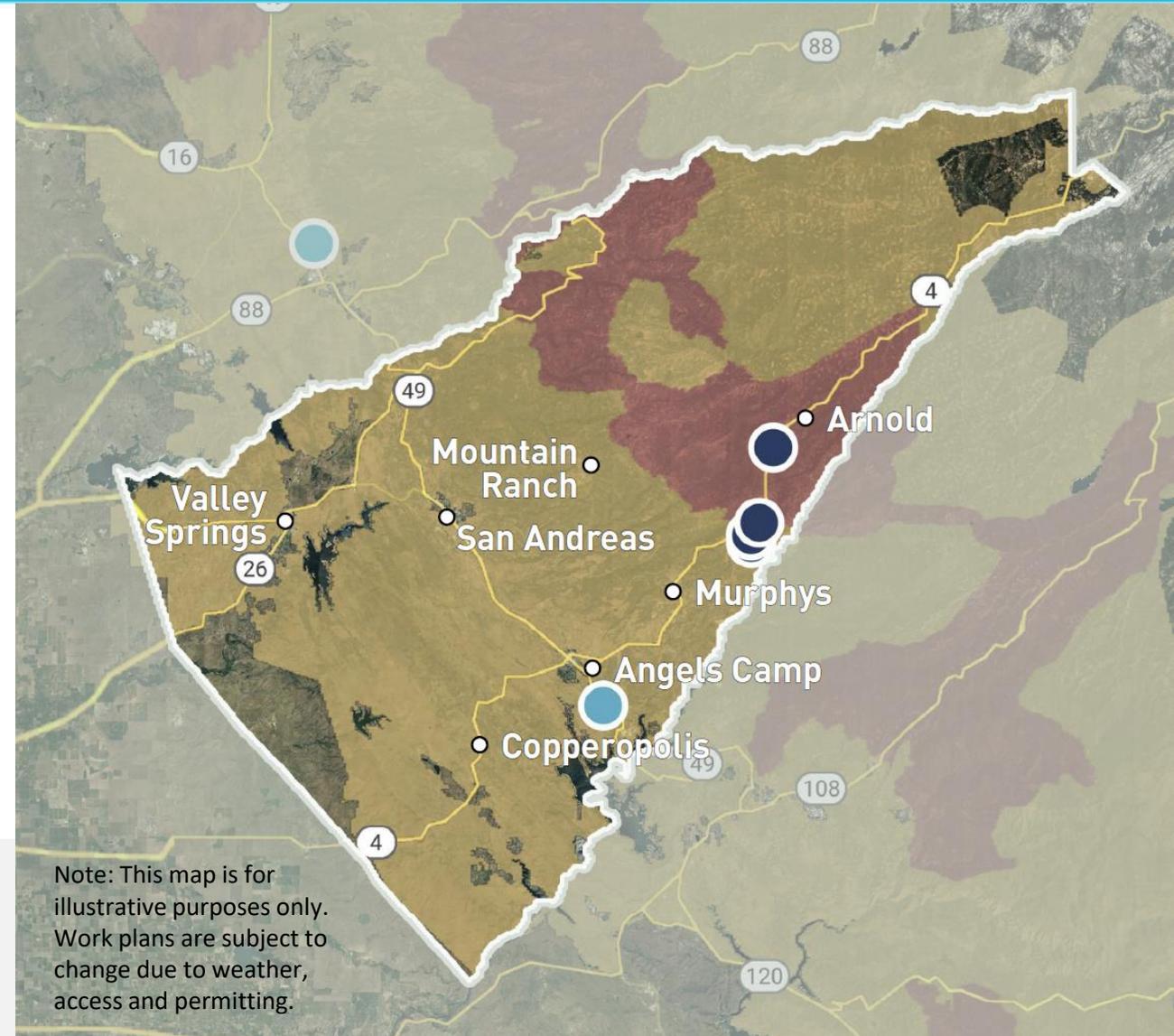
- 2022 Planned/Completed Miles
- 2023 Planned Miles

High Fire-Threat District

- Tier 3 - Extreme
- Tier 2 - Elevated

Learn more about our undergrounding efforts at

pge.com/systemhardening



Data is as of 02/1/22 and does not include undergrounding work related to the California Public Utilities Commission's Rule 20 Program.



Undergrounding in Fresno County

Strengthening the electric system by undergrounding our powerlines in and near high fire-threat areas.



**UNDERGROUNDING
PLANNED 2022-2023**

1 mile

Undergrounding

- 2022 Planned/Completed Miles
- 2023 Planned Miles

High Fire-Threat District

- Tier 3 – Extreme
- Tier 2 – Elevated

Learn more about our undergrounding efforts at

pge.com/systemhardening



Note: This map is for illustrative purposes only. Work plans are subject to change due to weather, access and permitting.

Data is as of 02/1/22 and does not include undergrounding work related to the California Public Utilities Commission's Rule 20 Program.



Undergrounding in Mariposa County

Strengthening the electric system by undergrounding our powerlines in and near high fire-threat areas.



**UNDERGROUNDING
PLANNED 2022-2023**

5 miles

Undergrounding

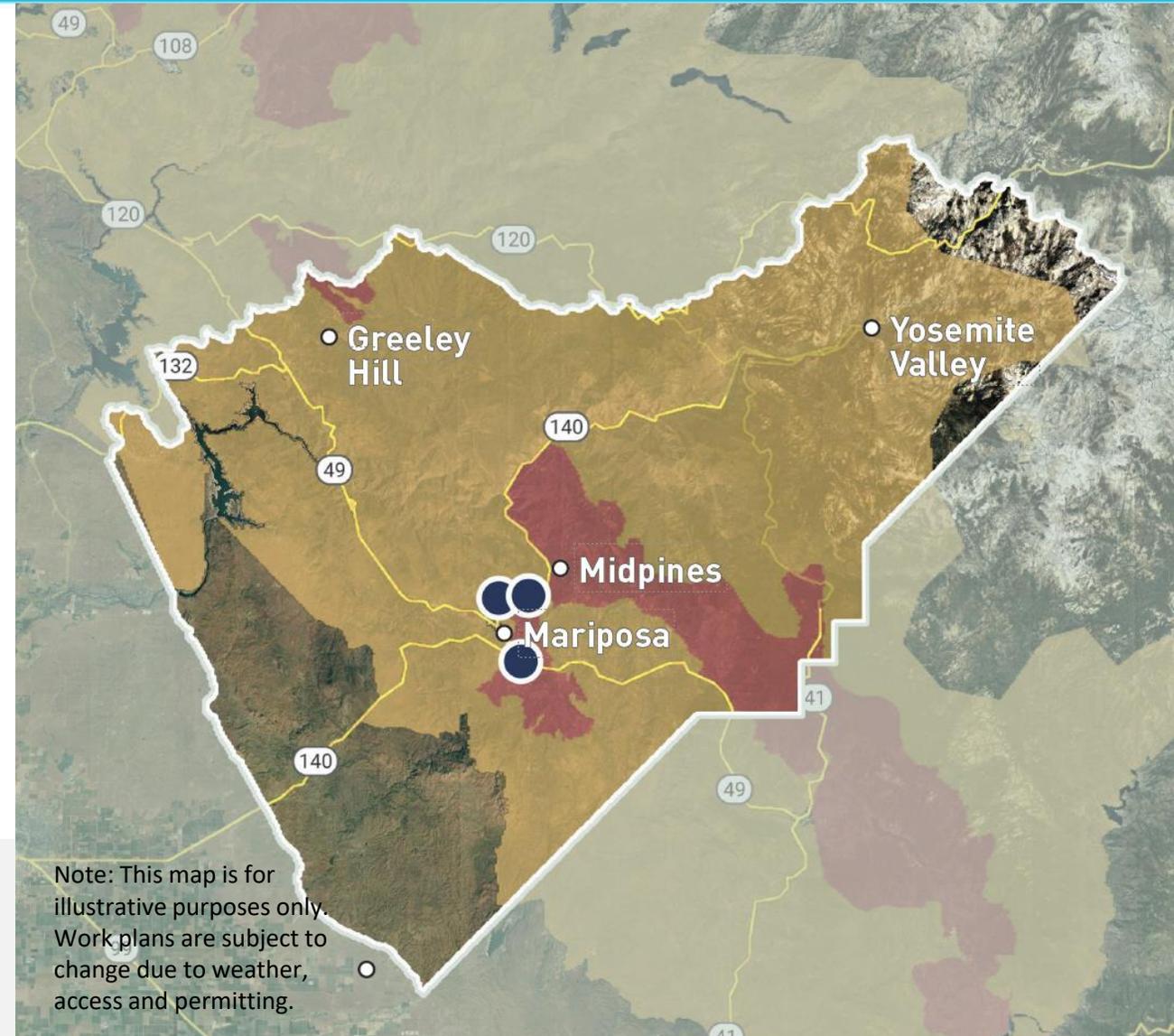
- 2022 Planned/Completed Miles
- 2023 Planned Miles

High Fire-Threat District

- Tier 3 - Extreme
- Tier 2 - Elevated

Learn more about our undergrounding efforts at

pge.com/systemhardening



Data is as of 02/1/22 and does not include undergrounding work related to the California Public Utilities Commission's Rule 20 Program.

Local Resilience Efforts

Enhanced Powerline Safety Settings



Enhanced Powerline Safety Settings (EPSS): A tool to help prevent wildfires

HOW IT WORKS

PG&E powerlines have equipment that allows them to turn off power within one-tenth of a second if a tree branch or other object strikes the line.



We are expanding these settings across 25,500 distribution line miles in areas of greatest wildfire risk.



SAFETY SETTINGS IN ACTION

In 2021, these settings prevented a potential ignition when a tree branch fell into a powerline and power quickly and automatically turned off.

WHY WE DO IT



Quickly and automatically shutting off power when there is a problem can help stop wildfires before they have a chance to start.

PREVENTING WILDFIRES

~80%



decrease in CPUC-reportable ignitions in 2021 on EPSS-enabled circuits.*

*Compared to the prior three-year average.

What Are Enhanced Powerline Safety Settings?

1 When an **object strikes the line** or a fault occurs...

To help prevent wildfires during the hot and dry season, we adjust the sensitivity settings on our equipment to quickly and automatically turn off power if the system detects a problem.

2 ...protective devices detect the change in current and **shut off power within one-tenth of a second.**

3 We check the lines for damage before safely restoring power. This process can take several hours, depending on terrain.

Patrols are done by helicopter, truck or on foot during daylight hours.

POWER OFF

PG&E

For illustrative purposes only. Graphic is not to scale.

Refining Our EPSS Program to Reduce Impacts on Customers



Improvements In Place

- **Fine-tuning sensitivity** on our equipment to reduce the likelihood of an outage
- **Increasing communication** between our devices and patrol crews to reduce the size of outages
- **Amended patrol guidance** for EPSS-enabled circuits



Improvements Underway

- **Minimizing impacts** to customer reliability
- Installation of additional **animal protection on our equipment**
- **Targeted vegetation clearing** to prevent branch and tree fall-ins



Supporting Customers

- Expanding **generator and battery rebate** support
- Enhancing **customer and stakeholder engagement**
- **More accurate restoration times** during outages

Local Resilience Efforts

Microgrids, Remote Grids and Backup Generation





Substation Microgrid Program Update

PG&E has made significant improvements to our weather modeling and technology capabilities, grid operations and overall system resiliency.

As a result of these improvements, substations prepared for temporary generation in 2020 and 2021 are **now significantly less likely** to experience a PSPS-related outage than they were during previous years.

In 2021, **none of the substations prepared for temporary generation were utilized** to support customers during a PSPS or capacity related outage event.

Because of these improvements, PG&E is not planning to reserve any temporary generators for the purpose of energizing substations for PSPS outages in 2022.

Substation Microgrid Site	2021 PSPS Usage
BRUNSWICK (Nevada County)	Not utilized during 2021
CLEAR LAKE (Lake County)	Not utilized during 2021
CLOVERDALE (Sonoma County)	Not utilized during 2021
HARTLEY (Lake County)	Not utilized during 2021
HOOPA (Humboldt County)	Not utilized during 2021
KONOCTI (Lake County)	Not utilized during 2021
LOW GAP (Trinity County)	Not utilized during 2021
POINT MORETTI (Santa Cruz County)	Not utilized during 2021
WILLOW CREEK (Humboldt County)	Not utilized during 2021
BIG BASIN* (Santa Cruz County)	Not utilized during 2021
DOBBINS* (Yuba County)	Not utilized during 2021
WEIMAR* (Placer County)	Not utilized during 2021

*Energization plan only.



Systemwide Grid Resilience Efforts

In 2022, we are continuing to build upon our distribution microgrid and remote grid programs and plan to continue to utilize our previously identified islanding locations when possible.

Program	Description	2020 Total Sites	2021 Total Sites	2022 Total Sites Planned
Distribution Microgrids	Microgrids prepared to energize “main street” corridors, central community resources and critical facilities in areas that frequently experience PSPS events.	3*	8**	13
Remote Grids	Remote Grids use a combination of solar power, battery storage and propane generation to provide energy to customers independent from the larger electric grid.	0	1	3***
Islanding Locations	Reconfiguration of local generation sources to allow certain areas to be separated from the larger electric grid and remain energized during PSPS events.	0	6	6

Local work plans are subject to change and data is based on the best available information at this time.

*Does not include 4 additional sites that were made ready to operate using a temporary configuration in 2020

**Does not include 1 additional site that was made ready to operate using a temporary configuration in 2021

***Additional sites may also be completed in 2022



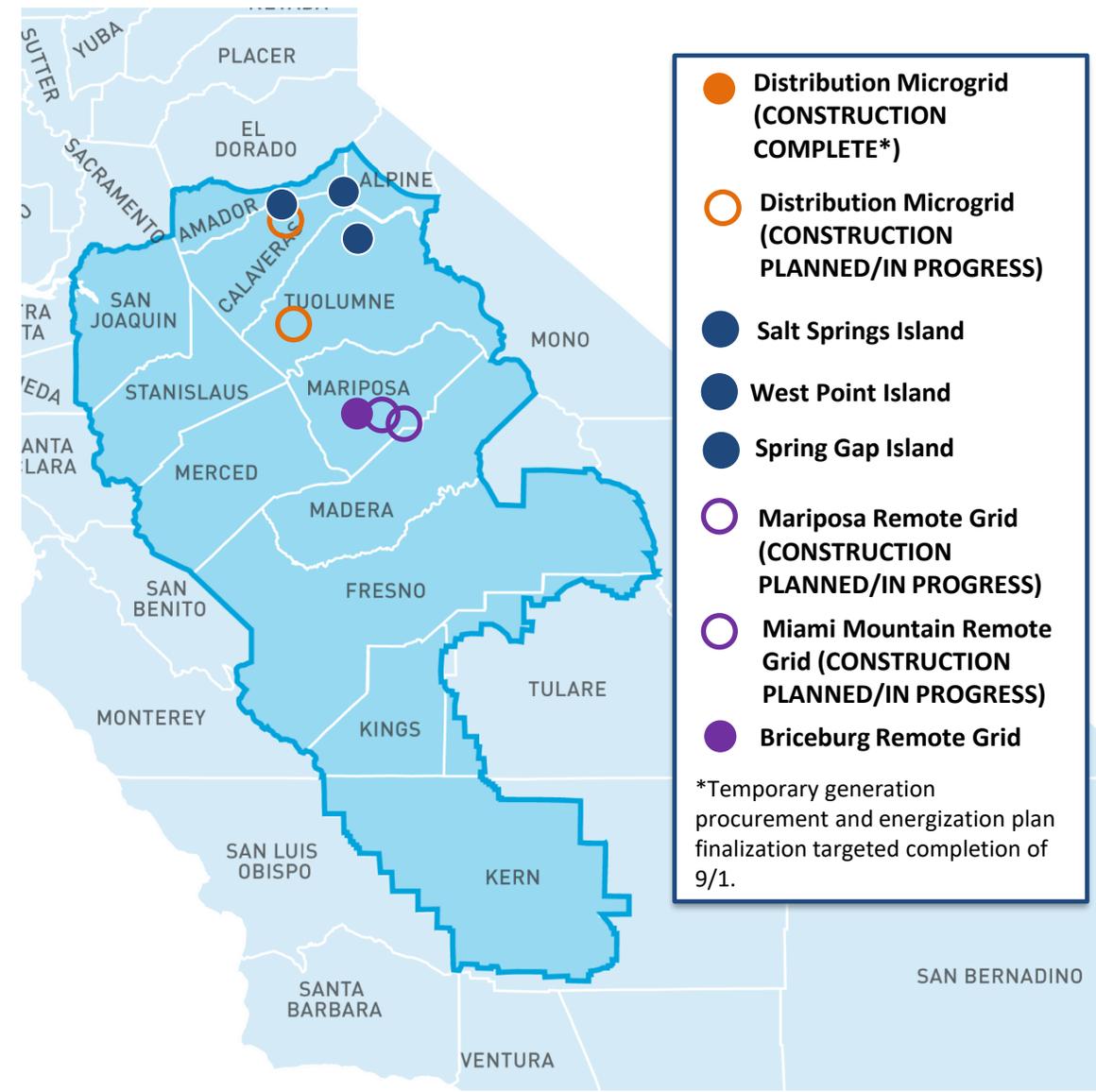
Grid Resilience Efforts – Central Valley Region

COUNTY	COMPLETE THROUGH 2021	NEW 2022 SITES
Calaveras	2 LOCATIONS	1 LOCATION
Mariposa	1 LOCATION	2 LOCATIONS
Tuolumne	1 LOCATION	1 LOCATION

Note: Additional microgrid work is not currently planned in the remaining counties within the region.

PG&E is prioritizing its wildfire safety work by locations with the highest risk of wildfire and locations that will reduce PSPS impacts for the most customers.

Local work plans are subject to change and data is based on the best available information at this time.



Local Resilience Efforts

EPSS/PSPS Customer Support





Self-Generation Incentive Program

Providing customers rebates for battery storage and renewable generation.

pge.com/batteryincentive



Portable Battery Program

Supporting eligible customers with fully subsidized portable battery solutions.

pge.com/pspsresources



Generator and Battery Rebate* Program

Rebates for eligible customers to purchase a qualifying generator or battery.

pge.com/backuppowers



Partnership with 211

24/7 free and confidential support and access to local resources during periods of critical need via calls or texts to 211.

211.org



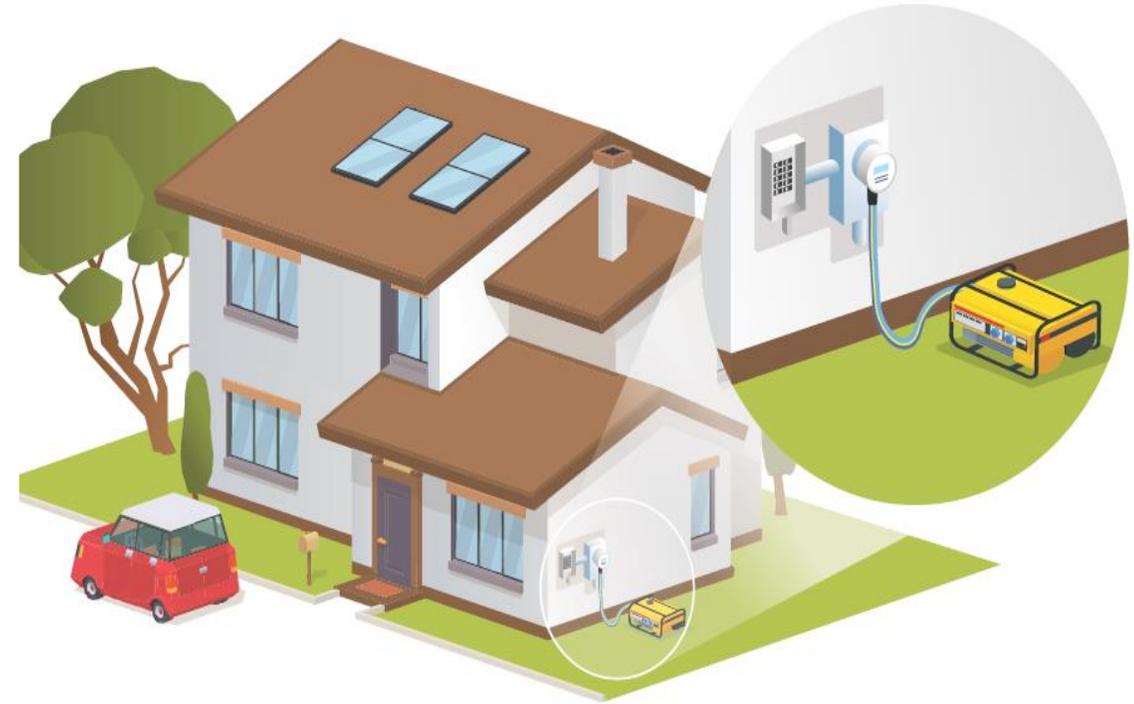
**Please note the portable battery program is not eligible for customers experiencing EPSS.*

Backup Power Transfer Meter Support

PG&E has developed a new meter program to help our customers safely power their homes during emergency outages.

- 
 The program provides a **safe way for customers to connect generator power** to their homes.
- 
 The **power is delivered directly to the circuit breaker** when you connect the generator to the meter and will also eliminate any power cords running through your home.
- 
 Be sure to **start the generator at a safe location** and program to your home specifics.
- 
 This program also provides **an affordable solution** for customers who are unable to afford solar or backup battery systems.

www.pge.com/transfERMeter



When utility power returns customers should:

- 01** Turn off your generator
- 02** Adjust your breaker panel to set all circuit to the “on” position
- 03** Unplug the cord from the generator to disconnect from the meter



More Information and Tools For Customers to Prepare

BEFORE PSPS AND EPSS OUTAGES

- **See if you qualify for backup power support** at pge.com/backuppower.
Generator rebates for customers who rely on well water **Portable batteries** for Medical Baseline customers in high fire risk areas
- **Apply for the Medical Baseline Program** to receive energy savings and extra outreach before a PSPS at pge.com/medicalbaseline.
- **Self-identify for Vulnerable Customer Status** if you or someone in your home's life or health would be at risk should electric or gas service be disconnected at pge.com/vulnerable.

DURING PSPS OUTAGES

- **Find Community Resource Centers** to charge personal or medical devices and get basic supplies during a PSPS at pge.com/crc.
- **Replace lost food** at your local food bank during and up to three days after an outage, visit pge.com/pspsresources.
- **Prepare an emergency plan** including portable backup power, hotel accommodations and accessible transportation at disabilitydisasteraccess.org.

Visit PG&E's YouTube Channel

To view more safety information, tips to be prepared and other resources

www.youtube.com/user/pgevideo



To view webinar slides and recordings, visit

www.pge.com/firesafetywebinars



For more information

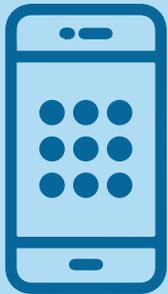
Visit pge.com/wildfiresafety
Call us at **1-866-743-6589***
Email us at wildfiresafety@pge.com



**Translated support available*



Insert your questions or feedback into the chat function.



Ask your question or provide your feedback verbally by unmuting your line.

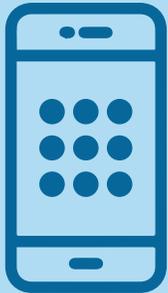
- 
- Where does PG&E plan to underground 10,000 miles of powerlines?**
 - How has the EPSS program changed since 2021?**
 - How can my community better utilize the customer resources that PG&E offers?**

Local Resilience Planning Session





Insert your questions or feedback into the chat function.



Ask your question or provide your feedback verbally by unmuting your line.



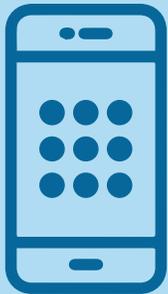
What else would you like to know about local resilience efforts?

Resilience Planning Flyover





Insert your questions or feedback into the chat function.



Ask your question or provide your feedback verbally by unmuting your line.



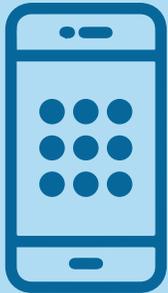
Can you show me how undergrounding a section of powerlines can help to minimize Public Safety Power Shutoff impacts?



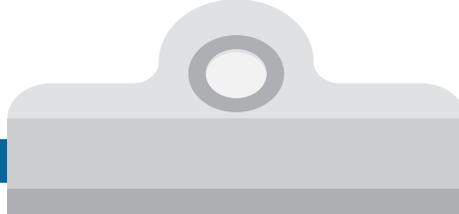
What do EPSS changes look like in my community?



Insert your questions or feedback into the chat function.



Ask your question or provide your feedback verbally by unmuting your line.

- 
- Which resilience topics would you like us to cover in future Regional Working Group meetings?**
 - What resilience efforts are most important to your community?**
 - What changes (if any) would you make to the Regional Working Group meeting structure?**

- 
Meeting survey shared with participants to gather feedback on approach and content of regional working group

- 
Follow-up on items identified by local agencies/stakeholders

- 
Upcoming meetings
 - Q2 2022 Regional Working Group Meetings
 - Ongoing Local Government Engagement

2022 REGIONAL WORKING GROUP CALENDAR

TIMING	TOPICS
Q2 2022	Public Safety Power Shutoff and Wildfire Safety Updates

Beginning next quarter

we plan to send invites from

PSPSRegionalWorkingGroups@pge.com



Thank You



Appendix

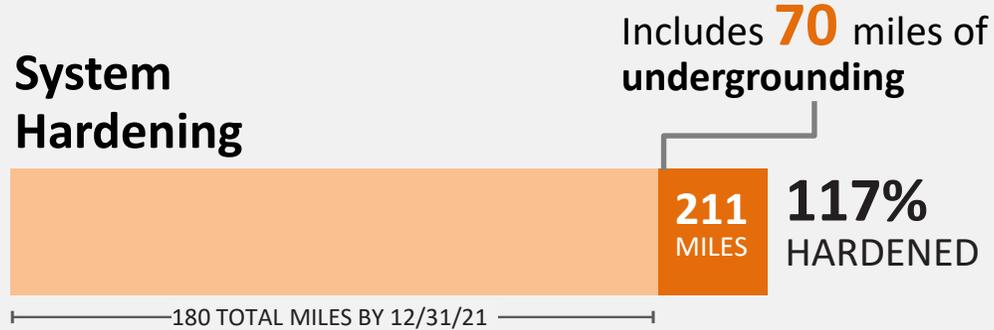




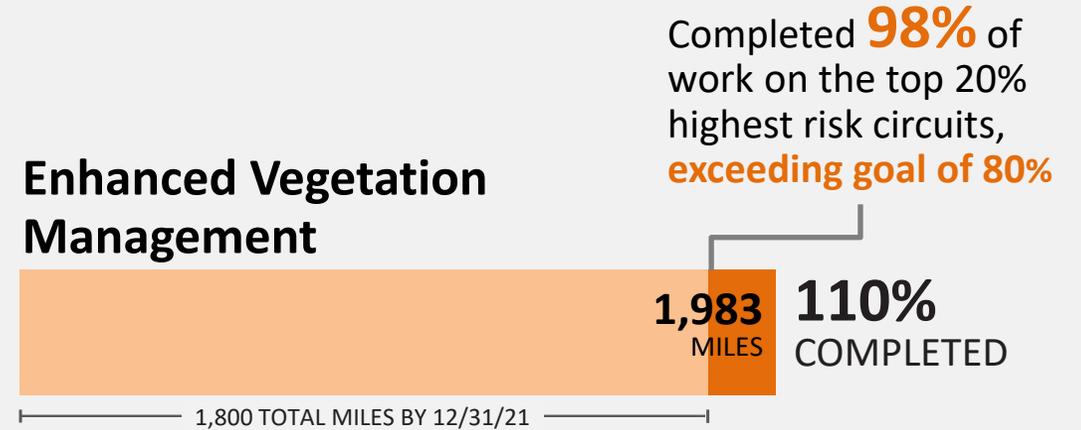
Performance Against Our 2021 WMP Goals

Key 2021 WMP Programs

System Hardening

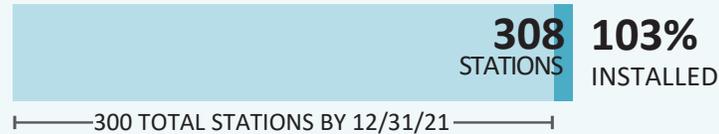


Enhanced Vegetation Management

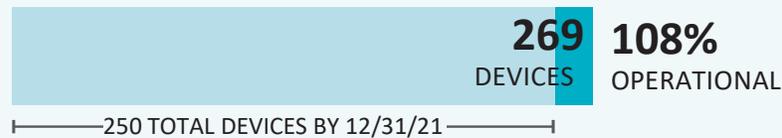


Additional Programs to Mitigate Wildfire Risk and Improve Situational Awareness

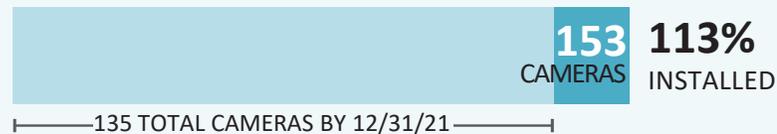
Weather Stations



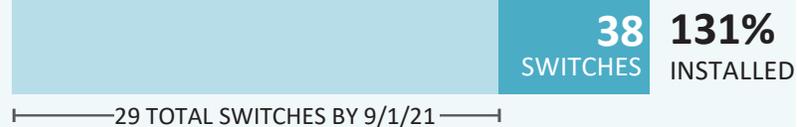
Sectionalizing Devices



High-Definition Cameras



Transmission Line Switches



NEW

2021 Programs Beyond WMP

Launched program to undergrounding powerlines
~10K miles as part of a multiyear effort

Implemented Enhanced Powerline Safety Settings (EPSS) on
~45% of HFTD circuit miles in 2021



Outstanding Follow Up and Action Items

Below is a list of the follow up and action items identified during the previous Regional Working Group meetings as well as corresponding statuses.

Action Item	Agency	Status
Requested follow up regarding what PSPS related resources are available for deaf customers.	Fresno County Office of Emergency Services	In Progress
Requested follow up to confirm how/if gas service could be impacted by a PSPS event.	NCPA	In Progress
Requested follow up to confirm transmission line accounts (i.e., Healdsburg) are able to use Address Alerts.	NCPA	In Progress
Follow-up regarding if induction assessment (lines that could create a risk of induction) for distribution lines are taken under consideration in PSPS criteria.	Turlock Irrigation District	In Progress



Status of Planned/Upcoming Resilience Efforts – Systemwide

Program	County	Site Name/Area	Status	Estimated Completion
Distribution Microgrids	Butte	Magalia	Construction Complete	Q3 2022*
	Calaveras	Arnold	Planning	Q4 2022
	El Dorado	Georgetown	Construction Complete	Q3 2022*
	El Dorado	Pollock Pines	Construction Complete	Q3 2022*
	Lake	Clearlake North	Planning	Q4 2022
	Lake	Lucerne	Planning	Q4 2022
	Lake	Middletown	Construction Complete	Q3 2022*
	Napa	Angwin	Construction Complete	Q3 2022*
	Napa	Calistoga	Construction Complete	Q3 2022*
	Placer	Colfax	Construction Complete	Q4 2022*
	Placer	Foresthill	Construction Complete	Q3 2022*
	Shasta	Shingletown	Construction Complete	Q3 2022*
	Tuolumne	Groveland	Planning	Q4 2022
Islanding	Calaveras**	Salt Springs Island	Ready to Operate	N/A
	Calaveras***	West Point Island	Ready to Operate	N/A
	Humboldt	Humboldt Bay Island	Ready to Operate	N/A
	Plumas	Caribou Island	Ready to Operate	N/A
	Tehama	Red Bluff Island	Ready to Operate	N/A
	Tuolumne	Spring Gap	Ready to Operate	N/A

Local work plans are subject to change and data is based on the best available information at this time.

*Temporary generation procurement and energization plan finalization targeted completion of 9/1.

**Also serves portions of Amador and Alpine Counties.

***Also serves portions of Amador County.



Status of Planned/Upcoming Resilience Efforts – Systemwide

Program	County	Site Name/Area	Status	Estimated Completion
Remote Grids	Mariposa	Briceburg	Operational	N/A
	Mariposa	Miami Mountain	Planning	Q4 2022
	Tehama	Corning 1	Planning	Q4 2022
	Tehama	Corning 2	Planning	Q4 2022
	Mariposa	Mariposa	Planning	Q4 2022
	Sonoma	Pepperwood Preserve	Planning	Q4 2022
	Tehama	Manton 1	Planning	Q2 2023
	Tehama	Manton 2	Planning	Q2 2023
	Tehama	Manton 3	Planning	Q2 2023
	Madera	Coarsegold	Planning	Q2 2023
	Yuba	Bangor	Planning	Q2 2023
	Lake	Clearlake	Planning	Q2 2023
	Lake	Middletown	Planning	Q2 2023
	Tulare	Whitaker Forest	Planning	Q2 2023
	Tuolumne	Vallecito	Planning	Q2 2023
	Glenn	Alder Springs	Planning	Q3 2023
	San Luis Obispo	Carrizo Plains	Planning	Q3 2023
Marin	Inverness	Planning	Q3 2023	

Local work plans are subject to change and data is based on the best available information at this time.

Systemwide PSPS Customer Support

Customer Support Resources



77 partnerships with community-based organizations



13,079 batteries provided



1,044 hotel stays provided

Food Replacement Resources



26 participating Meals on Wheels in **22** counties



22 supporting food banks in **37** counties

Central Valley Community-Based Organizations

CFILC

- Resource for Independent Living Central Valley (RICV)
- Disability Resources Agency for Independent Living
- Independent Learning Center of Kern County

Food Banks

- ATCAA Food Bank
- Central California Food Bank
- El Dorado Food Bank
- The Resource Connection
- Interfaith Council of Amador
- Kings Community Action Center
- Merced County Food Bank
- Second Harvest Food Bank of San Joaquin & Stanislaus

Meals on Wheels

- Common Ground Senior Services

In-Language Media

- Centro Binacional para el Desarrollow Indigena Oaxaqueno
- KUVS Univision
- KSTS Telemundo
- KFTV Univision
- KNSO Telemundo
- KCSO Telemundo
- Radio Lazer Sacramento
- Lotus Radio Fresno
- Lotus Radio Sacramento
- Radio Bilingue (Non-Profit)
- D'Primeramano (Non-profit)
- El Popular News
- KBIF Radio
- Hmong TV Network
- ONME Network
- KIQI Radio

Community Wildfire Safety Program

Q1 2022 REGIONAL WORKING GROUP

North Valley/Sierra Region

March 23, 2022



Virtual Sign-In Reminder

Please “sign-in” using the chat function and provide your **name, organization and email.**



Safety

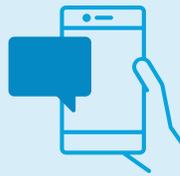
General Safety Tips



Identify two exit routes from your current work area in the event of a fire or other emergency.



“Drop, cover and hold” in the event of an earthquake.



Notify emergency services if you are in danger. You can also ask for help by putting a message in the chat function of this meeting.



Virtual Sign-In Reminder

Please “sign-in” using the chat function and provide your **name, organization and email**.

WORKING GROUP PARTICIPANTS:

- Access and Functional Needs Representatives
- City/County Staff
- Community-Based Organizations
- Community Choice Aggregators
- County Offices of Emergency Services
- Electric Co-Ops
- First Responders
- Health and Human Services Representatives
- Publicly Owned Electric Utilities
- Red Cross Staff
- Small, Multi-Jurisdictional Electric Utilities
- Telecommunications Providers
- Tribal Governments
- Water Agencies
- Filsinger Energy Partners
- California Public Utilities Commission Staff

DISCUSSION TOPICS:

- 1 2022 Wildfire Mitigation Plan Update**
- 2 Community Wildfire Safety Program Update**
- 3 Local Resilience Efforts**
- 4 Resilience Planning Flyover**
- 5 Open Discussion/Q&A**

MEETING PRESENTERS

Joe Wilson | Regional Vice President

Brandon Sanders | Local Government Affairs

Dan Blair | Local Government Affairs

Brent Stangeland | Public Safety Specialist

Reno Franklin | Tribal Liaison

2022 Wildfire Mitigation Plan Update



PG&E's Wildfire Mitigation Plan (WMP) was submitted on February 25 and outlines our actions to mitigate wildfire risk, this filing was an update of the 2020-2022 three-year plan submitted last year.

WMP Purpose

In compliance with California SB 901, AB 1054 and direction from the California's Office of Energy and Infrastructure Safety (OEIS), our WMP:

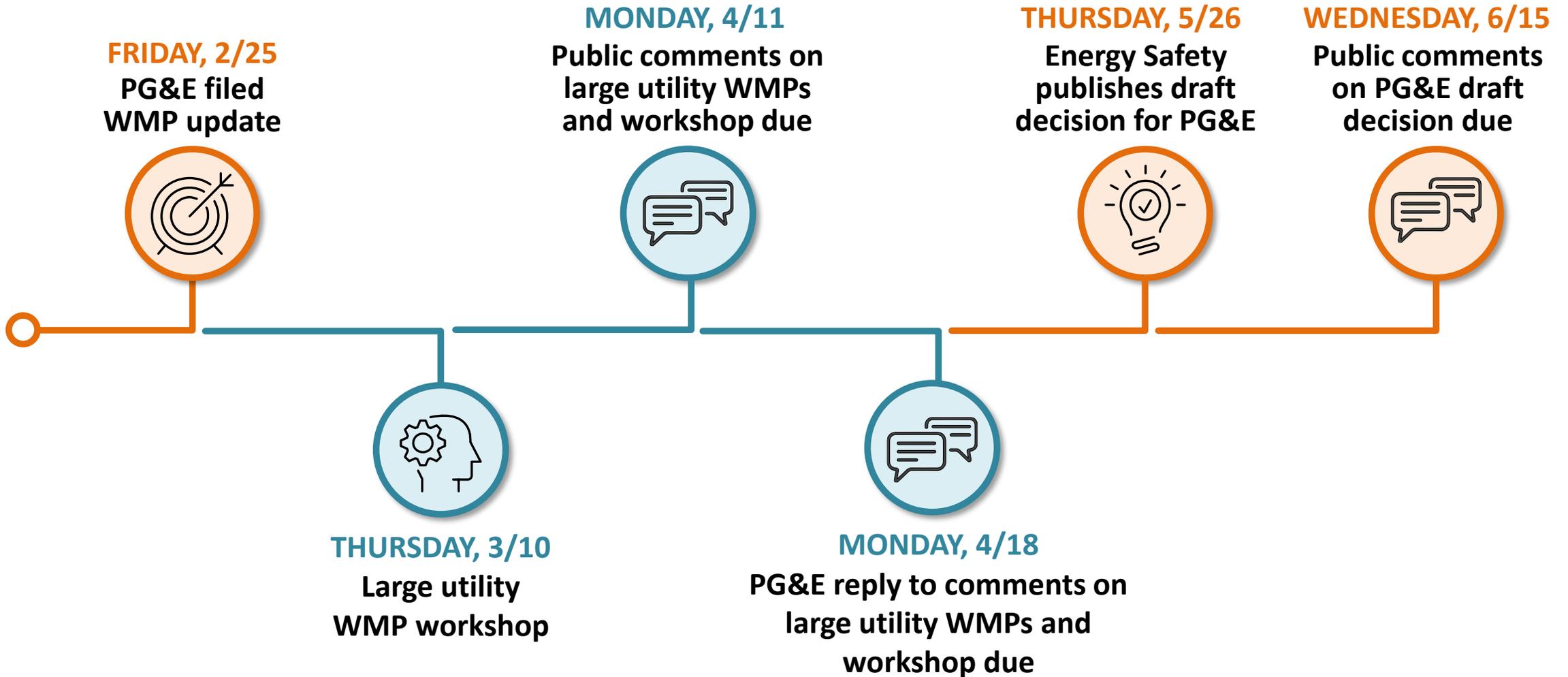
- ✔ Supports our ability to **mitigate wildfire risk**
- ✔ Aligns with strategic goals of **engaging with our stakeholders**
- ✔ Provides a **single source** for wildfire activities
- ✔ Fulfills **regulatory requirements**

Read the plan at

pge.com/wildfiremitigationplan

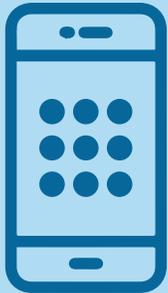


Important 2022 Wildfire Mitigation Plan Dates





Insert your questions or feedback into the chat function.



Ask your question or provide your feedback verbally by unmuting your line.



What else would you like to know about PG&E's recent Wildfire Mitigation Plan filing?

Community Wildfire Safety Program Update



Key Wildfire Safety Objectives in 2022

Reduce Wildfire Risk



- **Prevent catastrophic wildfires** by rebuilding and modernizing the system
- **Lessen the frequency** of ignitions
- **Limit the spread** of potential ignitions
- **Focus efforts** on the highest risk locations

Reduce Customer Impact



- **Improve coordination** with, and support of, customers and hometowns
- **Reduce the number** of customers impacted by safety outages
- **Reduce the duration** of safety outages

Improve Situational Awareness

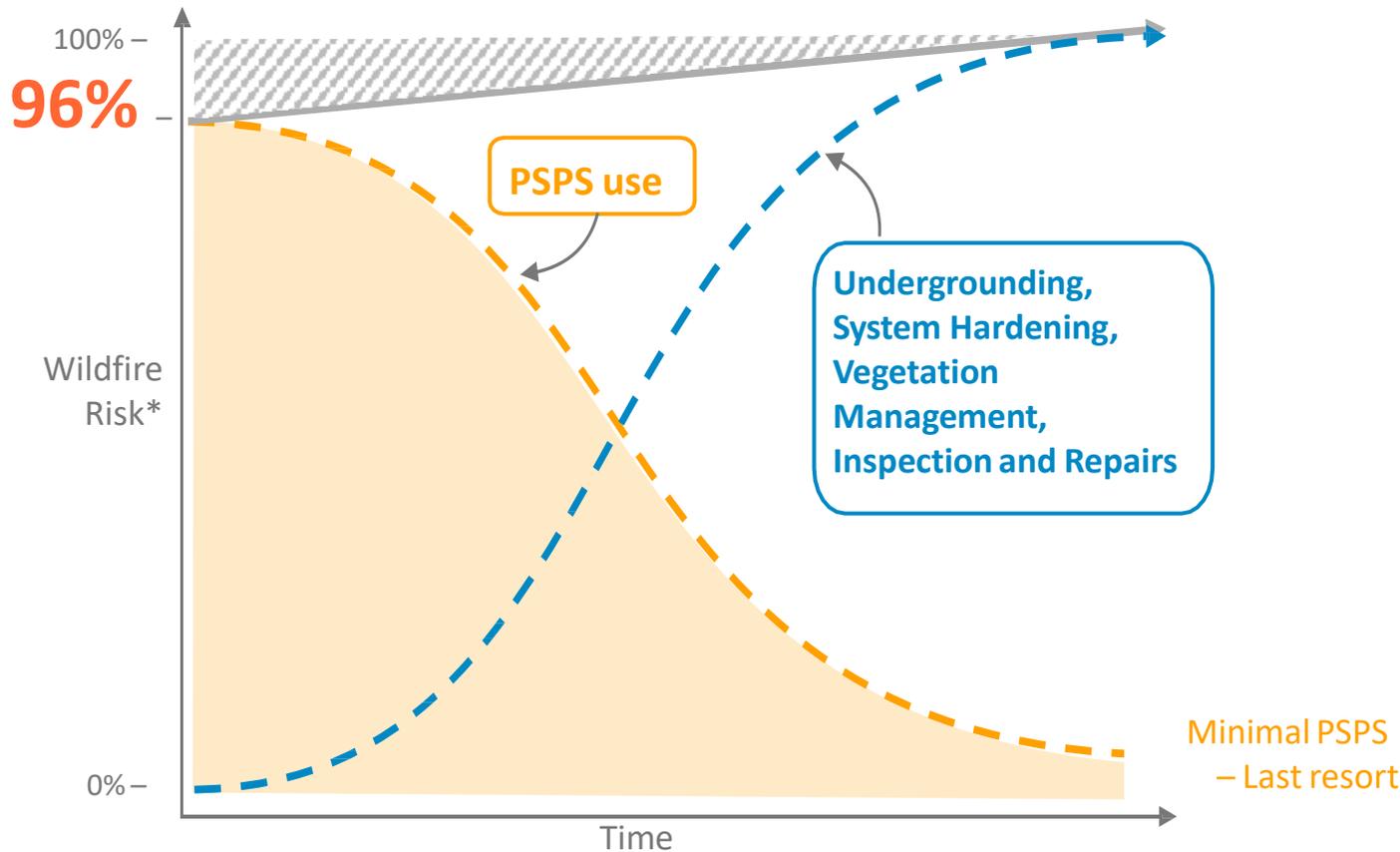


- **Enhance understanding** of where risk is located
- **Further refine weather modeling** and ability to detect wildfires
- **Improve our ability to capture and analyze data** from all hazards



Improving Public Safety Power Shutoffs

As we work to build the electric system of the future, with efforts like undergrounding and system hardening, Public Safety Power Shutoffs (PSPS) as a measure of last resort will continue to decline.



*Based on applying current PSPS protocols to catastrophic wildfires between 2012 and 2020, resulting in mitigating 96% of the structures impacted.

PSPS impacts have declined significantly through new, advanced technologies and improvements to the electric system infrastructure.

	2019	2020	2021
PSPS EVENTS	7	6	5
CUSTOMERS IMPACTED	2,014,000	653,000	80,400
DAMAGE/HAZARDS	722	257	442
AVERAGE OUTAGE DURATION (HRS)	43	35	31
AVERAGE RESTORATION TIME (HRS)	17	10	12

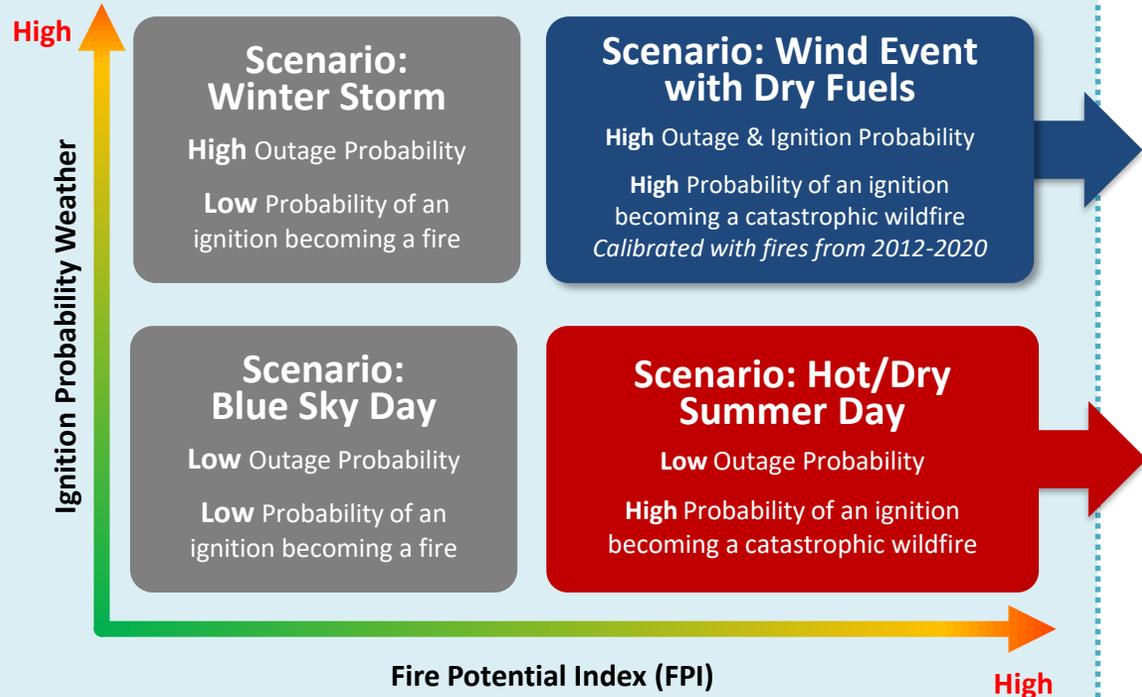
Data is approximate

Weather-Driven Wildfire Prevention Efforts



Year-Round Wildfire Mitigation

- Undergrounding
- System Hardening
- Enhanced Inspection and Repair



Weather-Driven Response

Public Safety Power Shutoff (PSPS)

Turning off power during severe weather to prevent tree branches and debris from contacting energized lines.

PSPS IN 2021

17% fewer outages*

88% fewer customers impacted*

2022 FOCUS

Continuing to refine program and reducing impacts in the areas at highest risk

Enhanced Powerline Safety Settings (EPSS)

Using equipment on powerlines that allows them to turn off power within one tenth of a second if a tree branch or object strikes the line.

EPSS IN 2021

In place on ~45% of HFTD circuit miles

2022 FOCUS

Expanding to 100% of HFTD circuit miles

*Compared to 2020

Local Resilience Efforts

Undergrounding

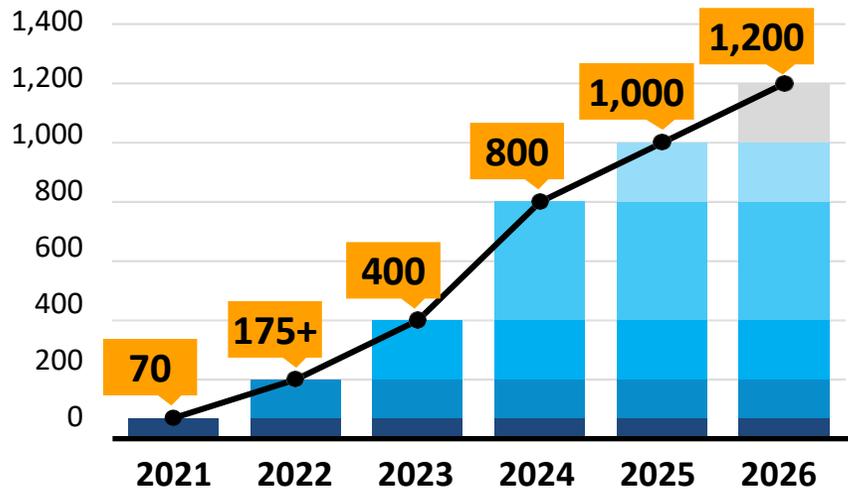




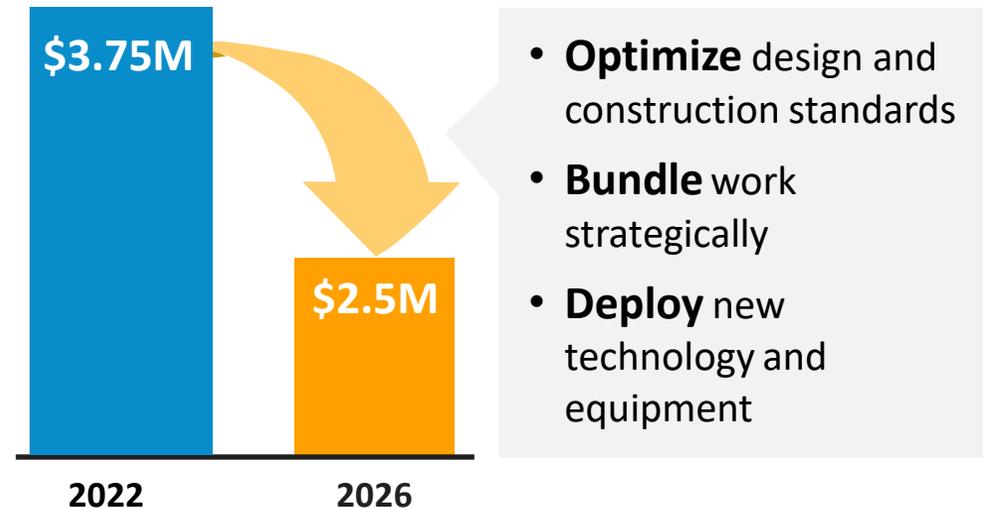
Undergrounding 10,000 Miles

PG&E is undertaking a major new initiative to underground approximately **10,000 miles of powerlines** in high fire risk areas.

Target Miles Per Year



Target Cost Per Mile



This commitment represents the largest effort in the U.S. to underground power lines as a wildfire risk mitigation measure.

Safe



Mitigates
Risk

Dependable



Reduces PSPS and EPSS
Improves Reliability

Sustainable



Saves Trees and Beautifies
our Hometowns

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

Underground Mile Identification Criteria

PG&E is identifying areas for our Undergrounding Program with a focus on Wildfire and PSPS risk reduction.
The below criteria is being used to identify miles for future projects:

Wildfire and PSPS Mitigation

- Probability & consequences of ignition
- PSPS impacts/reduction
- Public safety risk deduction
- Tree density
- Climate change

Integrated Planning

- Reliability risk reduction
- Impacts to other programs including vegetation management, EPSS, etc.
- Alternative solutions and routes
- Ingress/egress for evacuation & emergency responders

Constructability and Feasibility

- Longer runs & bundling work in connected areas
- Land rights & easements
- At grade/non-trench areas
- Cost of project

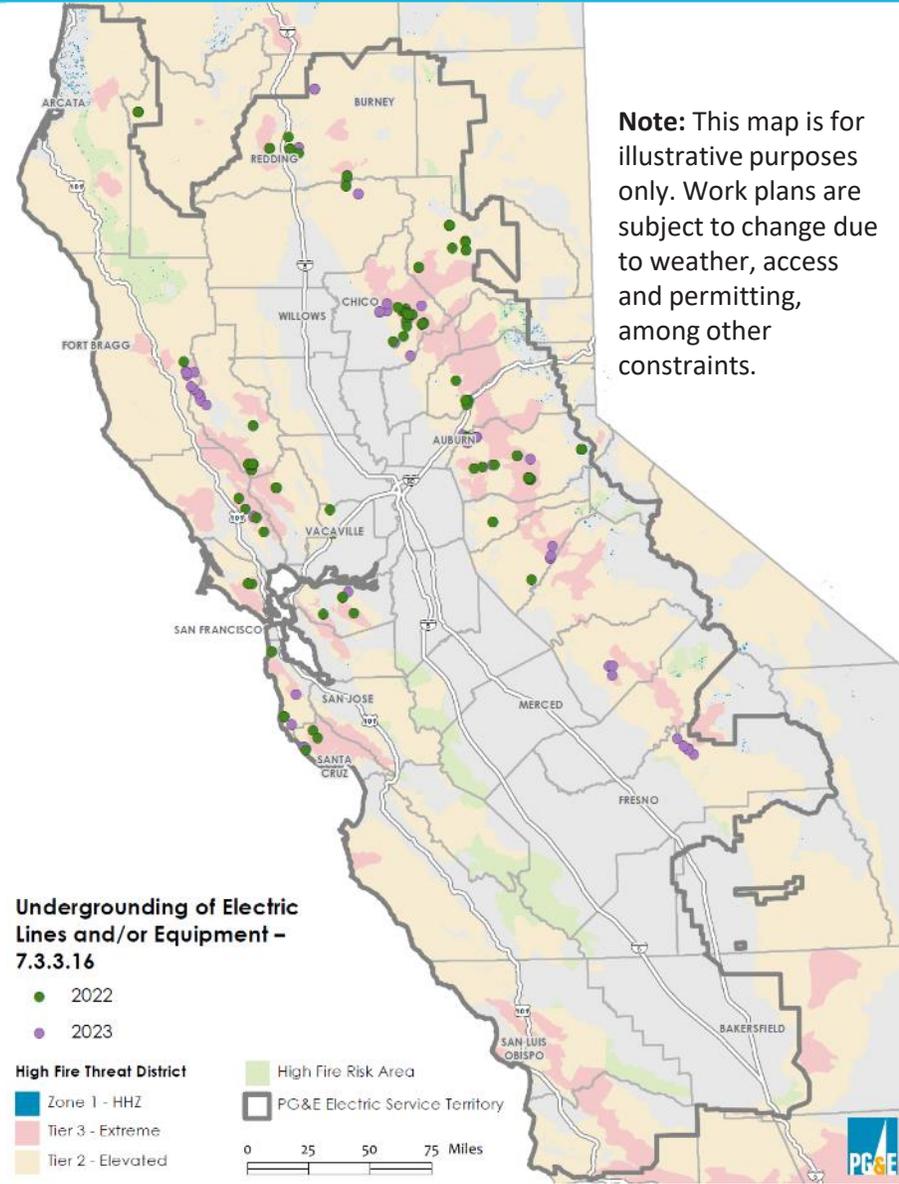
North Valley/Sierra Region 2022-2023 Undergrounding Work

Planned Undergrounding Miles Work in North Valley/Sierra Region

COUNTY	2022-2023
Butte	177**
El Dorado	39
Nevada	<1
Placer	3
Plumas	50
Shasta	45
Solano	7
Tehama	2

Data is as of 02/1/22 and does not include undergrounding work related to the California Public Utilities Commission’s Rule 20 Program.

**Includes 125 miles of fire rebuild related undergrounding.



Note: This map is for illustrative purposes only. Work plans are subject to change due to weather, access and permitting, among other constraints.

What Undergrounding May Look Like In Your Community

BEFORE



AFTER





Undergrounding in Butte County

Strengthening the electric system by undergrounding our powerlines in and near high fire-threat areas.



**UNDERGROUNDING
PLANNED 2022-2023**

177 miles

Undergrounding

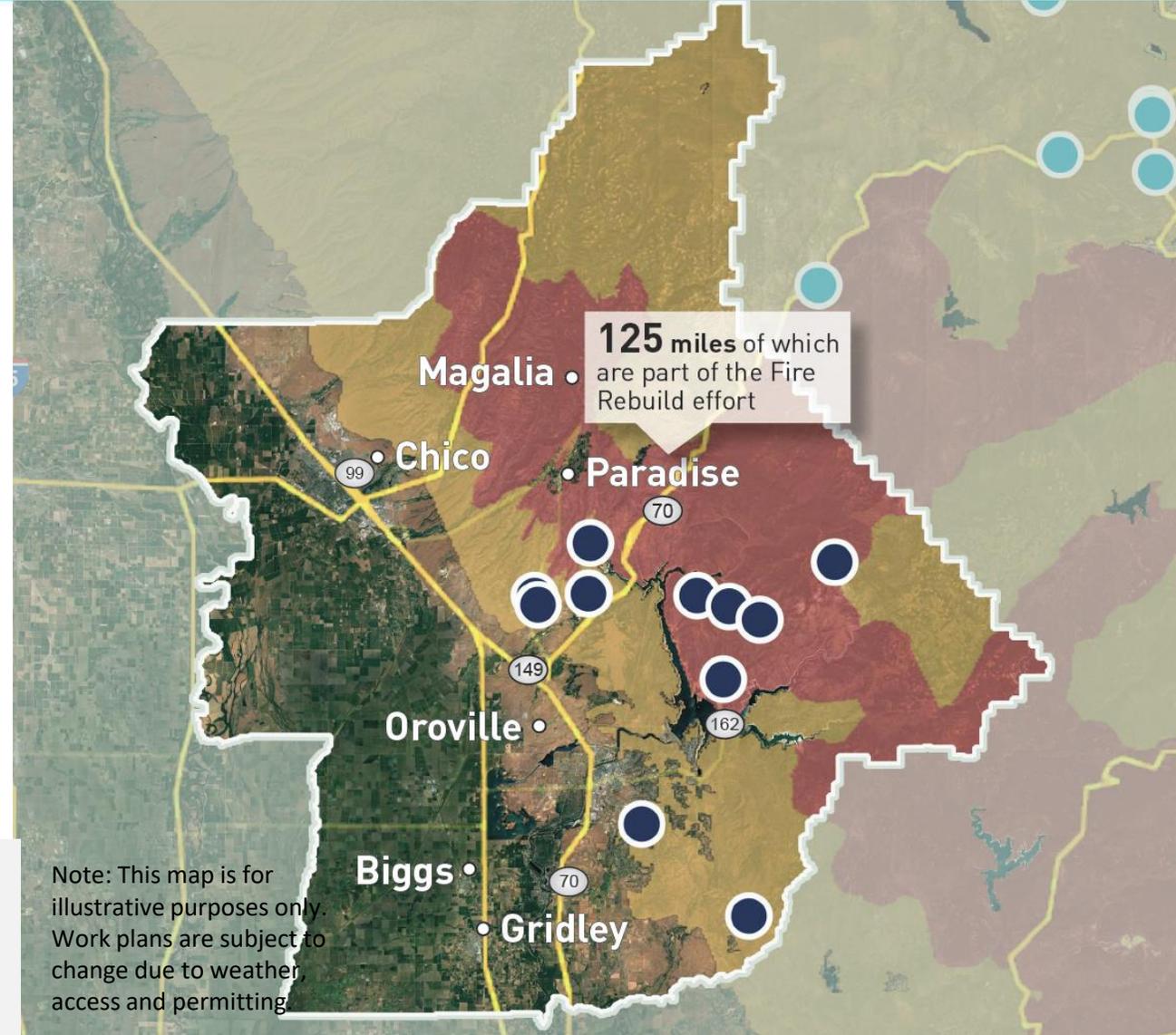
- 2022 Planned/Completed Miles
- 2023 Planned Miles

High Fire-Threat District

- Tier 3 - Extreme
- Tier 2 - Elevated

Learn more about our undergrounding efforts at

pge.com/systemhardening



Data is as of 02/1/22 and does not include undergrounding work related to the California Public Utilities Commission's Rule 20 Program.



Undergrounding in El Dorado County

Strengthening the electric system by undergrounding our powerlines in and near high fire-threat areas.



**UNDERGROUNDING
PLANNED 2022-2023**

39 miles

Undergrounding

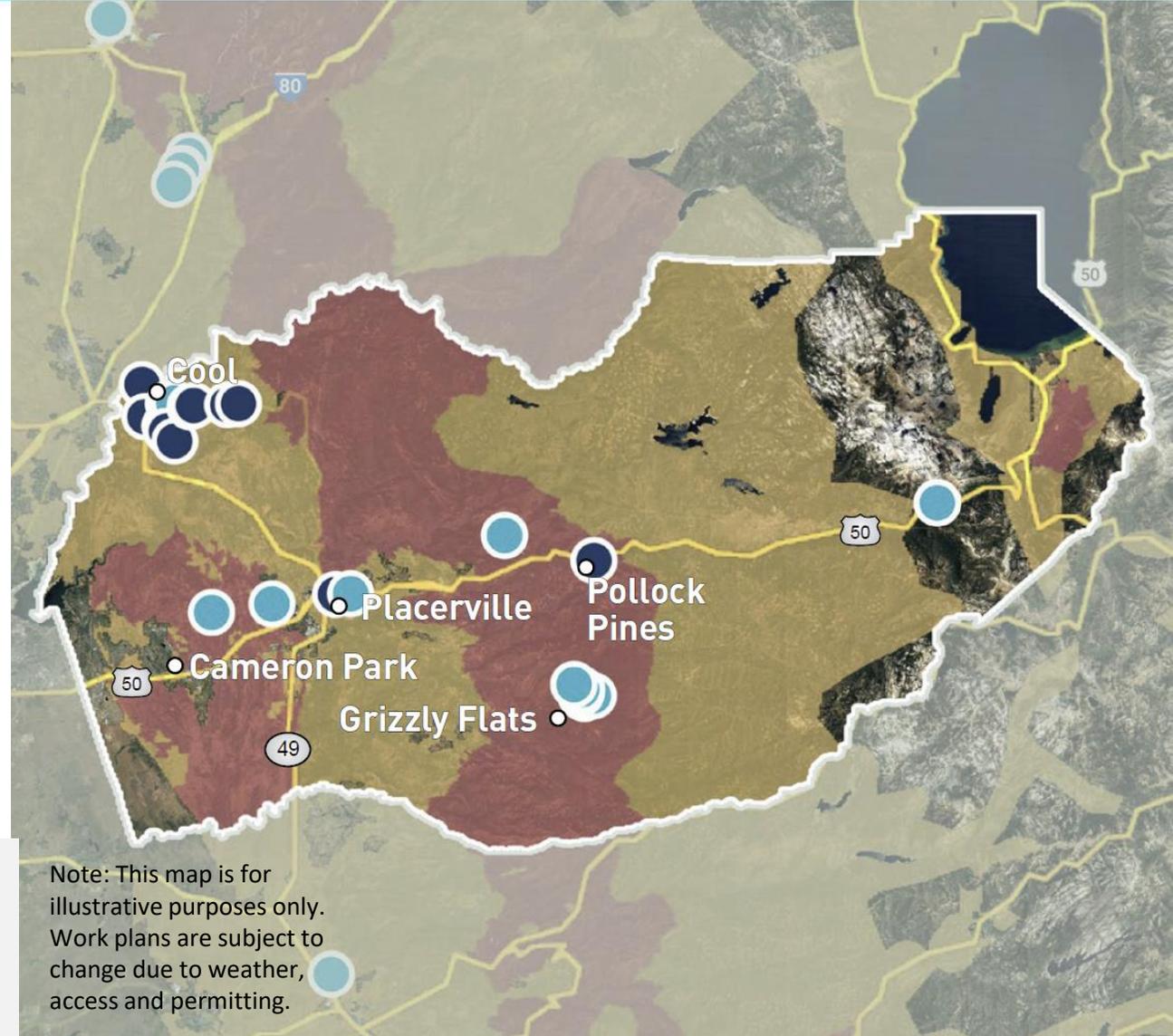
-  2022 Planned/Completed Miles
-  2023 Planned Miles

High Fire-Threat District

-  Tier 3 - Extreme
-  Tier 2 - Elevated

Learn more about our undergrounding efforts at

pge.com/systemhardening



Data is as of 02/1/22 and does not include undergrounding work related to the California Public Utilities Commission's Rule 20 Program.



Undergrounding in Nevada County

Strengthening the electric system by undergrounding our powerlines in and near high fire-threat areas.



**UNDERGROUNDING
PLANNED 2022-2023**

<1 miles

Undergrounding

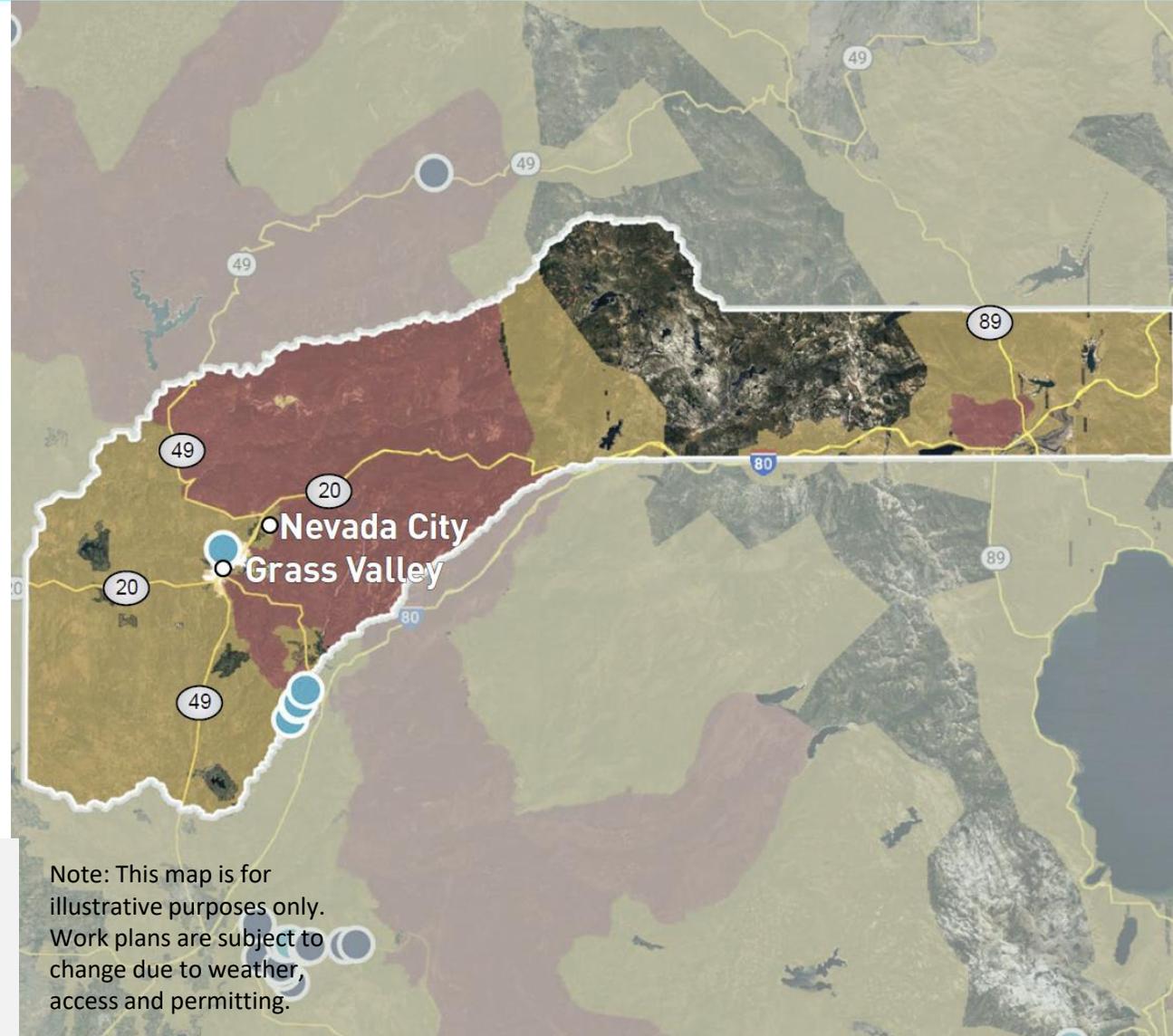
- 2022 Planned/Completed Miles
- 2023 Planned Miles

High Fire-Threat District

- Tier 3 - Extreme
- Tier 2 - Elevated

Learn more about our undergrounding efforts at

pge.com/systemhardening



Data is as of 02/1/22 and does not include undergrounding work related to the California Public Utilities Commission's Rule 20 Program.



Undergrounding in Placer County

Strengthening the electric system by undergrounding our powerlines in and near high fire-threat areas.



**UNDERGROUNDING
PLANNED 2022-2023**

3 miles

Undergrounding

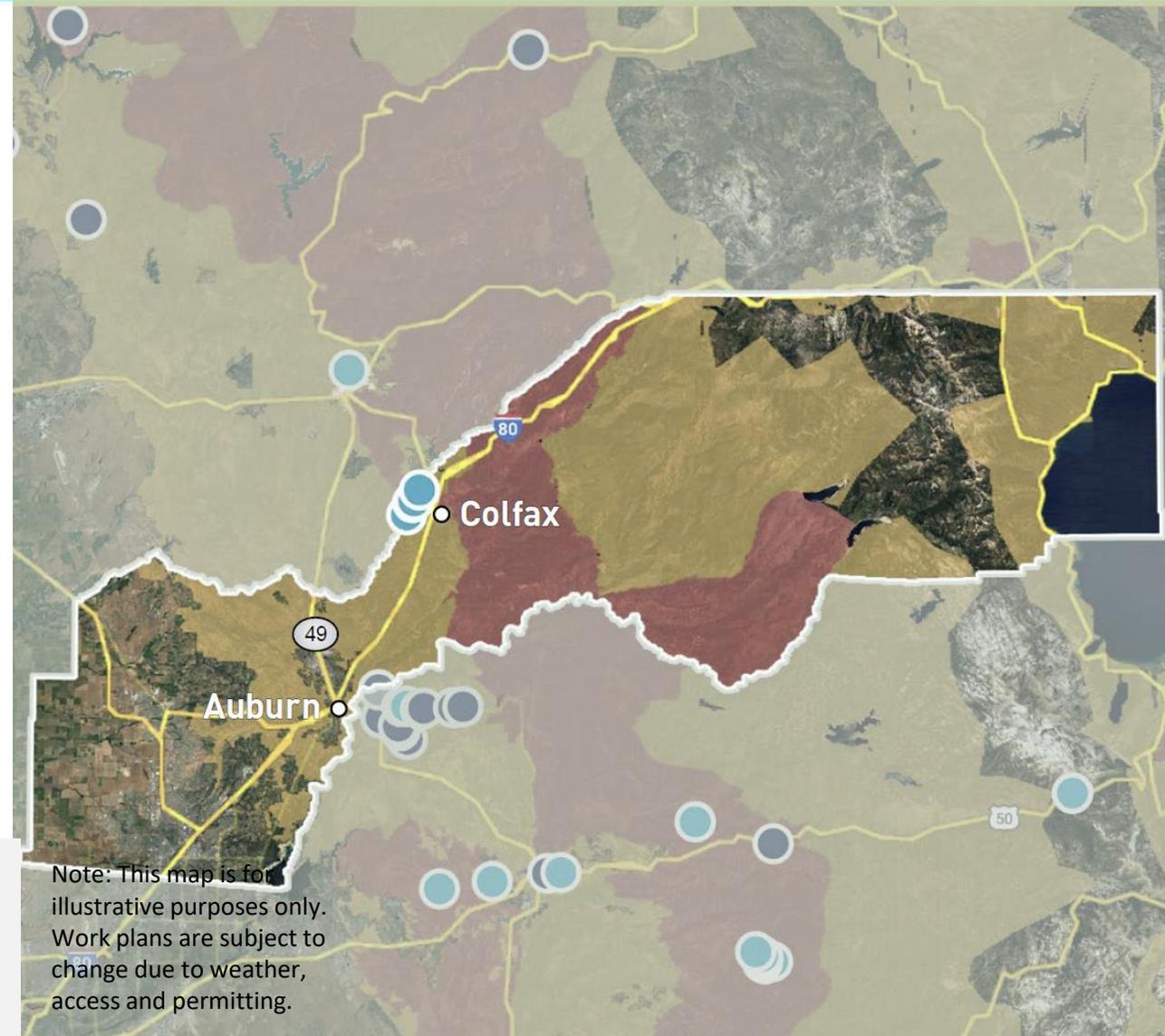
-  2022 Planned/Completed Miles
-  2023 Planned Miles

High Fire-Threat District

-  Tier 3 - Extreme
-  Tier 2 - Elevated

Learn more about our undergrounding efforts at

pge.com/systemhardening



Note: This map is for illustrative purposes only. Work plans are subject to change due to weather, access and permitting.

Data is as of 02/1/22 and does not include undergrounding work related to the California Public Utilities Commission's Rule 20 Program.



Undergrounding in Plumas County

Strengthening the electric system by undergrounding our powerlines in and near high fire-threat areas.



**UNDERGROUNDING
PLANNED 2022-2023**

50 miles

Undergrounding

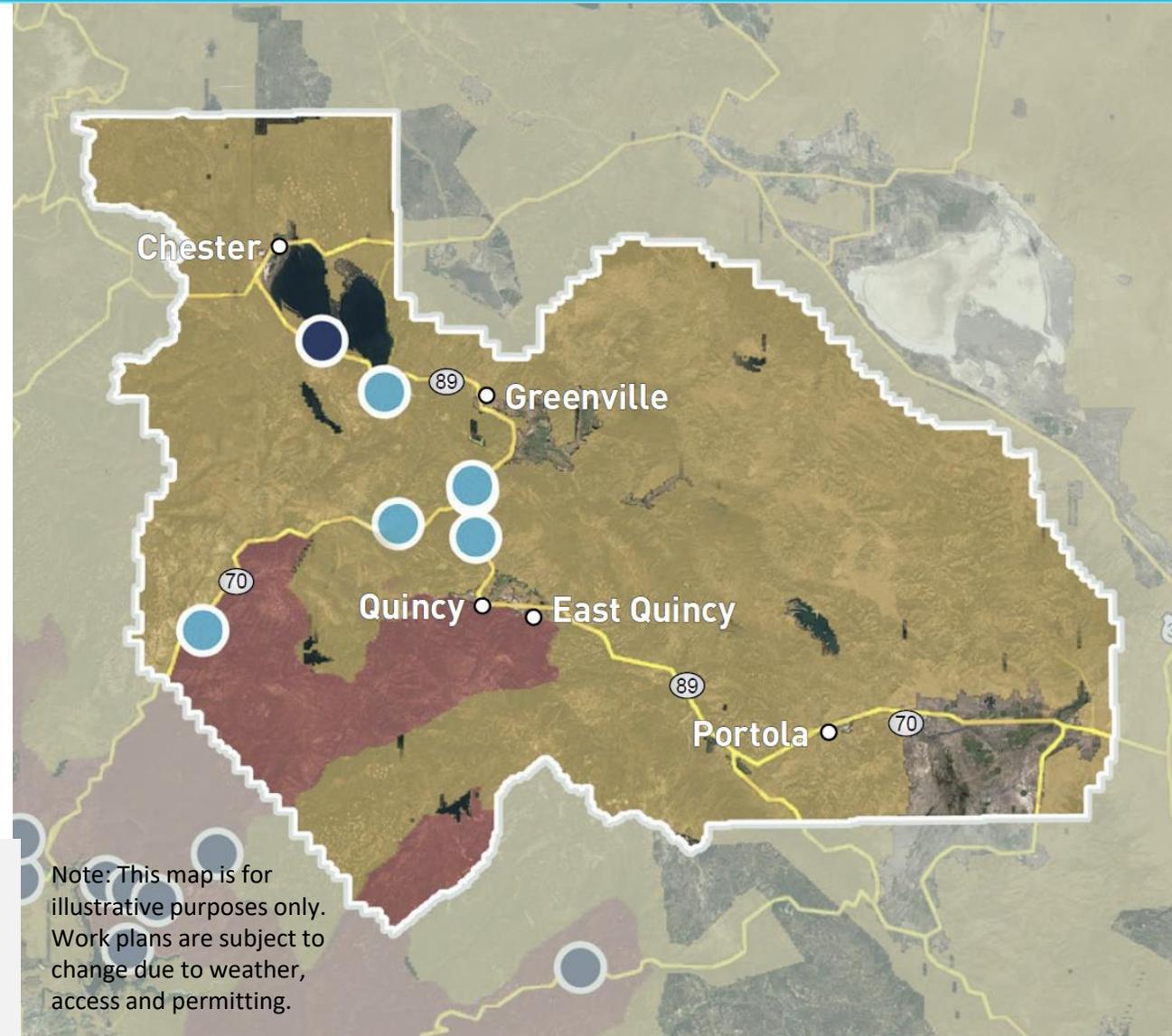
- 2022 Planned/Completed Miles
- 2023 Planned Miles

High Fire-Threat District

- Tier 3 - Extreme
- Tier 2 - Elevated

Learn more about our undergrounding efforts at

pge.com/systemhardening



Data is as of 02/1/22 and does not include undergrounding work related to the California Public Utilities Commission's Rule 20 Program.



Undergrounding in Shasta County

Strengthening the electric system by undergrounding our powerlines in and near high fire-threat areas.



**UNDERGROUNDING
PLANNED 2022-2023**

45 miles

Undergrounding

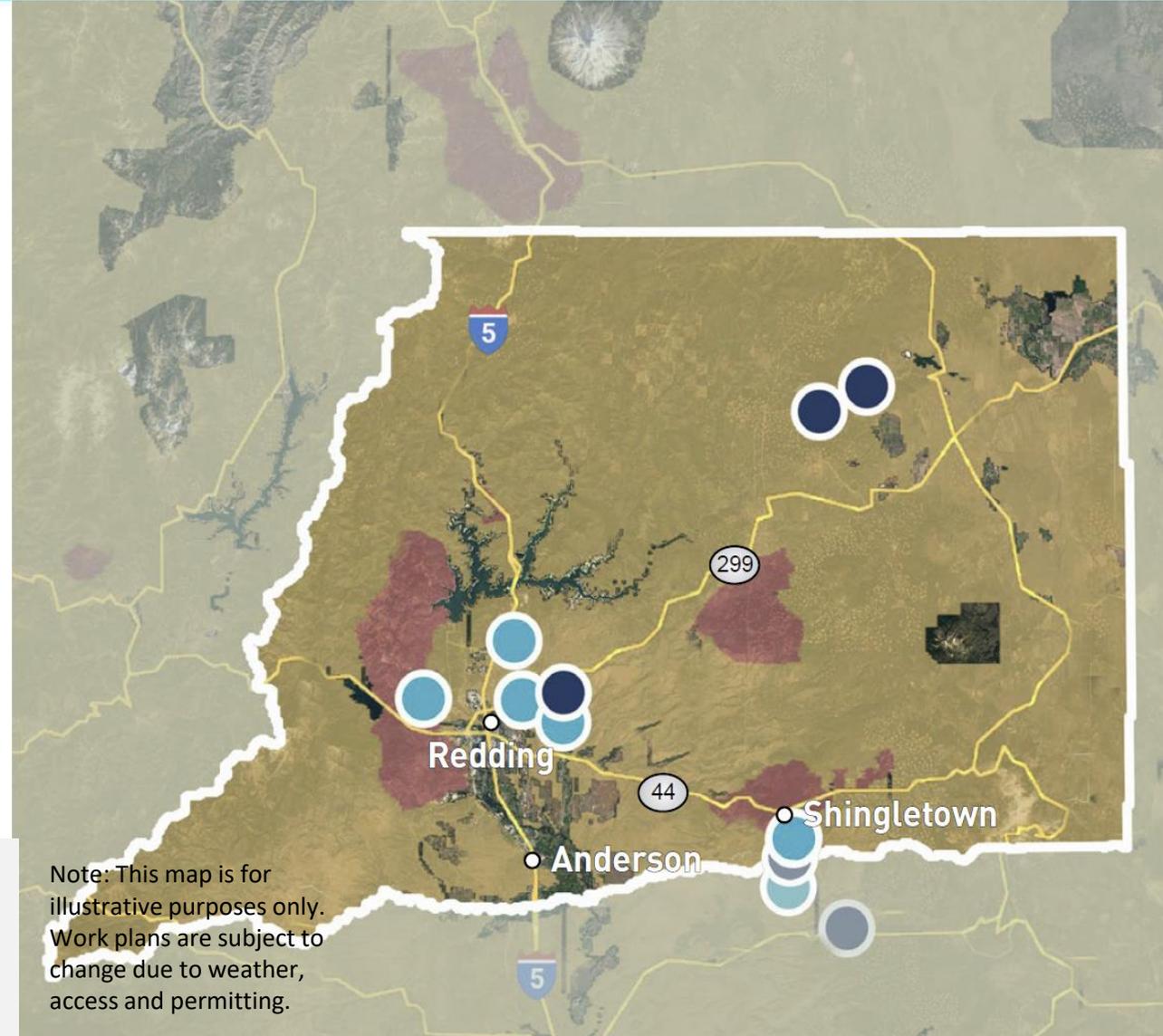
- 2022 Planned/Completed Miles
- 2023 Planned Miles

High Fire-Threat District

- Tier 3 - Extreme
- Tier 2 - Elevated

Learn more about our undergrounding efforts at

pge.com/systemhardening



Data is as of 02/1/22 and does not include undergrounding work related to the California Public Utilities Commission's Rule 20 Program.



Undergrounding in Solano County

Strengthening the electric system by undergrounding our powerlines in and near high fire-threat areas.



**UNDERGROUNDING
PLANNED 2022-2023**

7 miles

Undergrounding

- 2022 Planned/Completed Miles
- 2023 Planned Miles

High Fire-Threat District

- Tier 3 - Extreme
- Tier 2 - Elevated

Learn more about our undergrounding efforts at

pge.com/systemhardening



Data is as of 02/1/22 and does not include undergrounding work related to the California Public Utilities Commission's Rule 20 Program.



Undergrounding in Tehama County

Strengthening the electric system by undergrounding our powerlines in and near high fire-threat areas.



**UNDERGROUNDING
PLANNED 2022-2023**

2 miles

Undergrounding

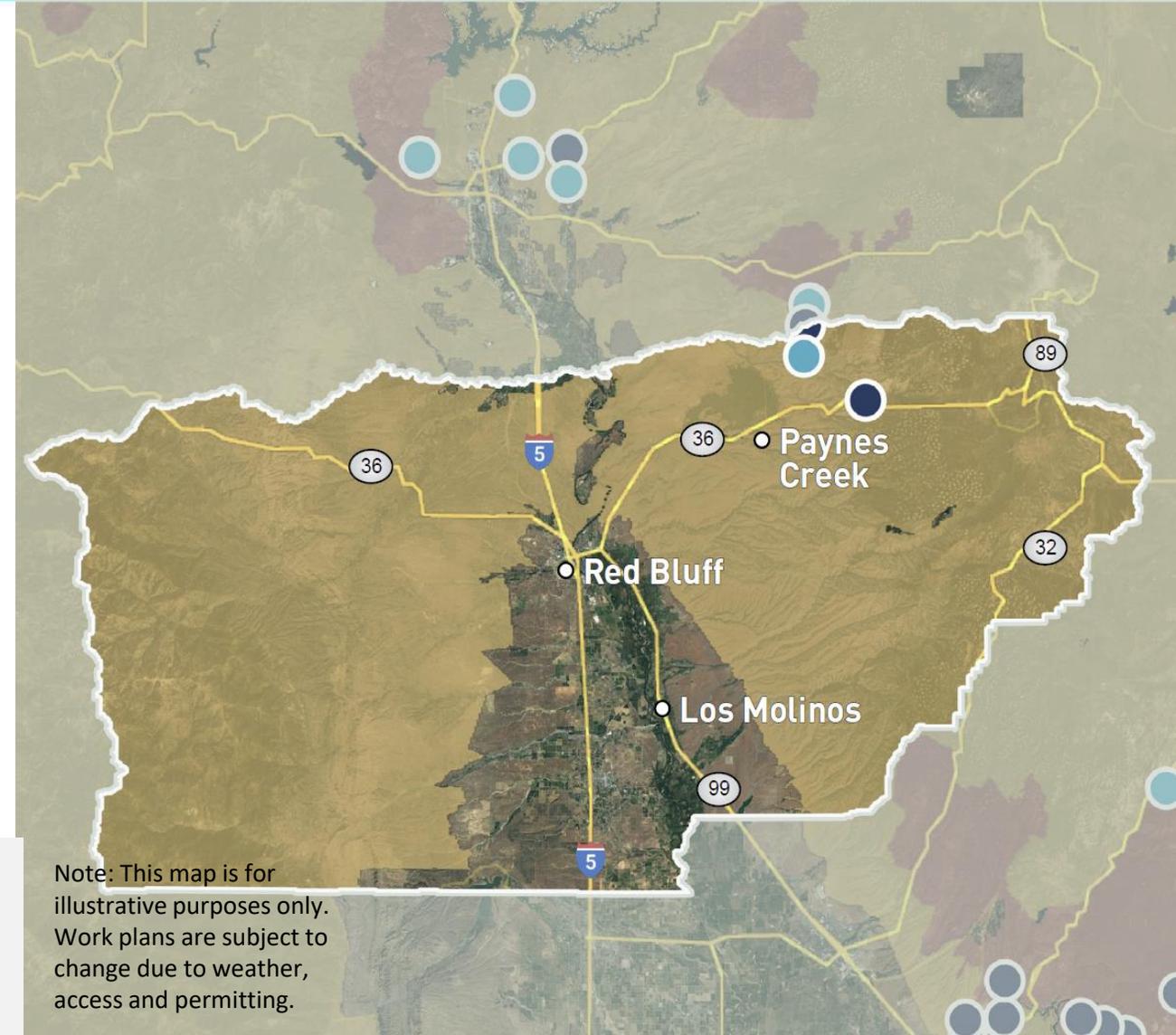
- 2022 Planned/Completed Miles
- 2023 Planned Miles

High Fire-Threat District

- Tier 3 - Extreme
- Tier 2 - Elevated

Learn more about our undergrounding efforts at

pge.com/systemhardening



Data is as of 02/1/22 and does not include undergrounding work related to the California Public Utilities Commission's Rule 20 Program.

Local Resilience Efforts

Enhanced Powerline Safety Settings



Enhanced Powerline Safety Settings (EPSS): A tool to help prevent wildfires

HOW IT WORKS

PG&E powerlines have equipment that allows them to turn off power within one-tenth of a second if a tree branch or other object strikes the line.



We are expanding these settings across 25,500 distribution line miles in areas of greatest wildfire risk.



SAFETY SETTINGS IN ACTION

In 2021, these settings prevented a potential ignition when a tree branch fell into a powerline and power quickly and automatically turned off.

WHY WE DO IT



Quickly and automatically shutting off power when there is a problem can help stop wildfires before they have a chance to start.

PREVENTING WILDFIRES

~80%



decrease in CPUC-reportable ignitions in 2021 on EPSS-enabled circuits.*

*Compared to the prior three-year average.

What Are Enhanced Powerline Safety Settings?

1 When an **object strikes the line** or a fault occurs...

To help prevent wildfires during the hot and dry season, we adjust the sensitivity settings on our equipment to quickly and automatically turn off power if the system detects a problem.

2 ...protective devices detect the change in current and **shut off power within one-tenth of a second.**

3 We check the lines for damage before safely restoring power. This process can take several hours, depending on terrain.

Patrols are done by helicopter, truck or on foot during daylight hours.

POWER OFF

PG&E

For illustrative purposes only. Graphic is not to scale.

Refining Our EPSS Program to Reduce Impacts on Customers



Improvements In Place

- **Fine-tuning sensitivity** on our equipment to reduce the likelihood of an outage
- **Increasing communication** between our devices and patrol crews to reduce the size of outages
- **Amended patrol guidance** for EPSS-enabled circuits



Improvements Underway

- **Minimizing impacts** to customer reliability
- Installation of additional **animal protection on our equipment**
- **Targeted vegetation clearing** to prevent branch and tree fall-ins



Supporting Customers

- Expanding **generator and battery rebate** support
- Enhancing **customer and stakeholder engagement**
- **More accurate restoration times** during outages

Local Resilience Efforts

Microgrids, Remote Grids and Backup Generation





Substation Microgrid Program Update

PG&E has made significant improvements to our weather modeling and technology capabilities, grid operations and overall system resiliency.

As a result of these improvements, substations prepared for temporary generation in 2020 and 2021 are **now significantly less likely** to experience a PSPS-related outage than they were during previous years.

In 2021, **none of the substations prepared for temporary generation were utilized** to support customers during a PSPS or capacity related outage event.

Because of these improvements, PG&E is not planning to reserve any temporary generators for the purpose of energizing substations for PSPS outages in 2022.

Substation Microgrid Site	2021 PSPS Usage
BRUNSWICK (Nevada County)	Not utilized during 2021
CLEAR LAKE (Lake County)	Not utilized during 2021
CLOVERDALE (Sonoma County)	Not utilized during 2021
HARTLEY (Lake County)	Not utilized during 2021
HOOPA (Humboldt County)	Not utilized during 2021
KONOCTI (Lake County)	Not utilized during 2021
LOW GAP (Trinity County)	Not utilized during 2021
POINT MORETTI (Santa Cruz County)	Not utilized during 2021
WILLOW CREEK (Humboldt County)	Not utilized during 2021
BIG BASIN* (Santa Cruz County)	Not utilized during 2021
DOBBINS* (Yuba County)	Not utilized during 2021
WEIMAR* (Placer County)	Not utilized during 2021

*Energization plan only.



Systemwide Grid Resilience Efforts

In 2022, we are continuing to build upon our distribution microgrid and remote grid programs and plan to continue to utilize our previously identified islanding locations when possible.

Program	Description	2020 Total Sites	2021 Total Sites	2022 Total Sites Planned
Distribution Microgrids	Microgrids prepared to energize “main street” corridors, central community resources and critical facilities in areas that frequently experience PSPS events.	3*	8**	13
Remote Grids	Remote Grids use a combination of solar power, battery storage and propane generation to provide energy to customers independent from the larger electric grid.	0	1	3***
Islanding Locations	Reconfiguration of local generation sources to allow certain areas to be separated from the larger electric grid and remain energized during PSPS events.	0	6	6

Local work plans are subject to change and data is based on the best available information at this time.

*Does not include 4 additional sites that were made ready to operate using a temporary configuration in 2020

**Does not include 1 additional site that was made ready to operate using a temporary configuration in 2021

***Additional sites may also be completed in 2022



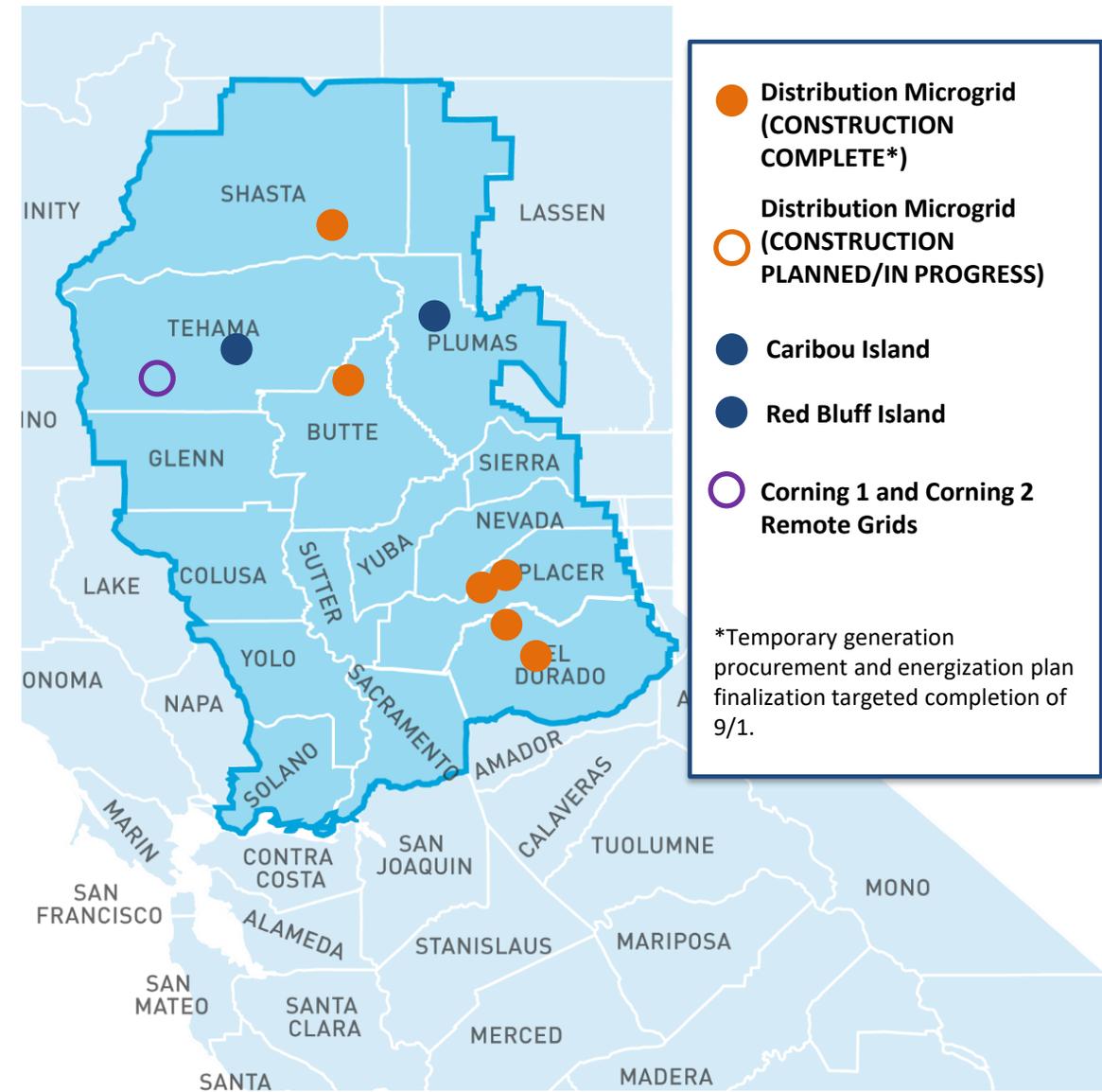
Grid Resilience Efforts – North Valley/Sierra Region

COUNTY	COMPLETE THROUGH 2021	NEW 2022 SITES
Butte	1 LOCATION	0 LOCATIONS
El Dorado	2 LOCATIONS	0 LOCATIONS
Placer	2 LOCATIONS	0 LOCATIONS
Plumas	1 LOCATIONS	0 LOCATIONS
Shasta	1 LOCATIONS	0 LOCATIONS
Tehama	1 LOCATION	2 LOCATION

Note: Additional microgrid work is not currently planned in the remaining counties within the region.

PG&E is prioritizing its wildfire safety work by locations with the highest risk of wildfire and locations that will reduce PSPS impacts for the most customers.

Local work plans are subject to change and data is based on the best available information at this time.



Local Resilience Efforts

EPSS/PSPS Customer Support





Self-Generation Incentive Program

Providing customers rebates for battery storage and renewable generation.

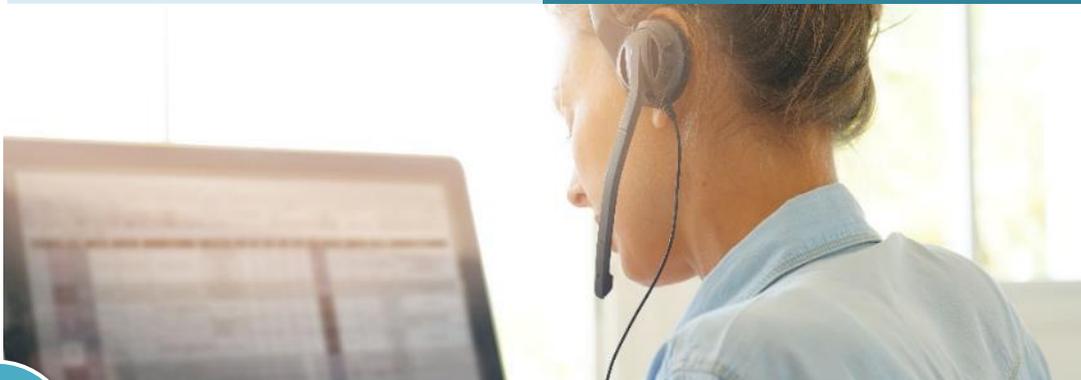
pge.com/batteryincentive



Portable Battery Program

Supporting eligible customers with fully subsidized portable battery solutions.

pge.com/pspsresources



Generator and Battery Rebate* Program

Rebates for eligible customers to purchase a qualifying generator or battery.

pge.com/backupper



Partnership with 211

24/7 free and confidential support and access to local resources during periods of critical need via calls or texts to 211.

211.org



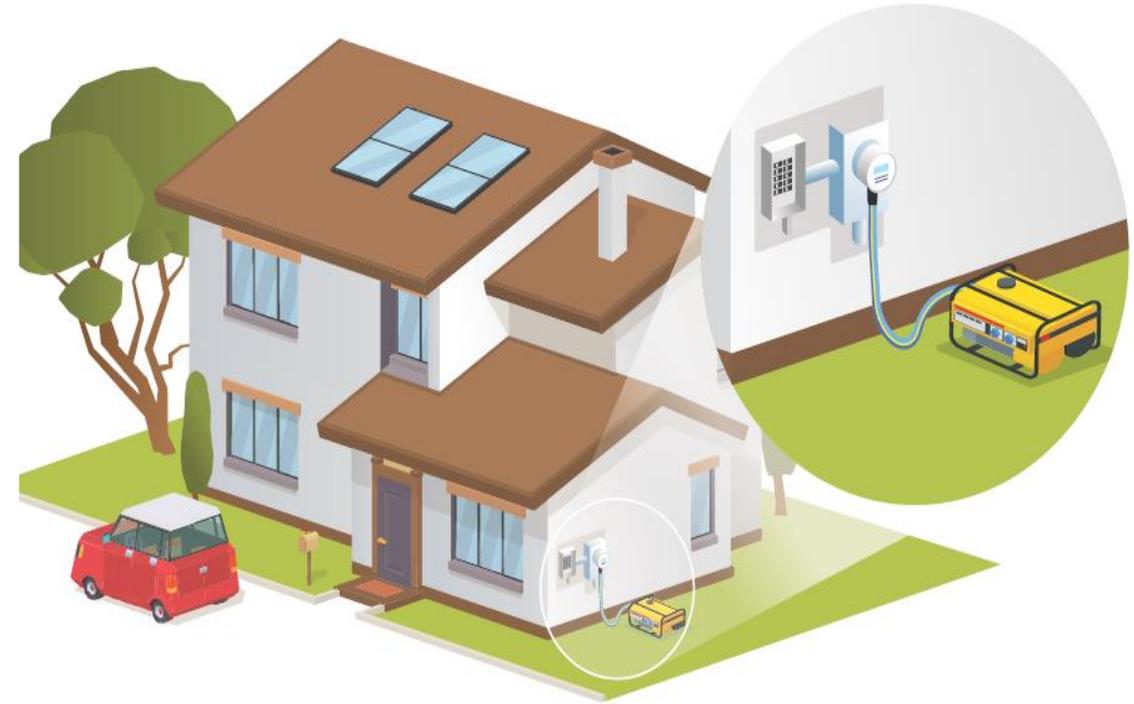
**Please note the portable battery program is not eligible for customers experiencing EPSS.*

Backup Power Transfer Meter Support

PG&E has developed a new meter program to help our customers safely power their homes during emergency outages.

- 
 The program provides a **safe way for customers to connect generator power** to their homes.
- 
 The **power is delivered directly to the circuit breaker** when you connect the generator to the meter and will also eliminate any power cords running through your home.
- 
 Be sure to **start the generator at a safe location** and program to your home specifics.
- 
 This program also provides **an affordable solution** for customers who are unable to afford solar or backup battery systems.

www.pge.com/transfermeter



When utility power returns customers should:

- 01** Turn off your generator
- 02** Adjust your breaker panel to set all circuit to the “on” position
- 03** Unplug the cord from the generator to disconnect from the meter



More Information and Tools For Customers to Prepare

BEFORE PSPS AND EPSS OUTAGES

- **See if you qualify for backup power support** at pge.com/backuppower.

Generator rebates for customers who rely on well water	Portable batteries for Medical Baseline customers in high fire risk areas
--	--
- **Apply for the Medical Baseline Program** to receive energy savings and extra outreach before a PSPS at pge.com/medicalbaseline.
- **Self-identify for Vulnerable Customer Status** if you or someone in your home's life or health would be at risk should electric or gas service be disconnected at pge.com/vulnerable.

DURING PSPS OUTAGES

- **Find Community Resource Centers** to charge personal and medical devices and get basic supplies during a PSPS at pge.com/crc.
- **Replace lost food** at your local food bank during and up to three days after an outage, visit pge.com/pspsresources.
- **Prepare an emergency plan** including portable backup power, hotel accommodations and accessible transportation at disabilitydisasteraccess.org.

Visit PG&E's YouTube Channel

To view more safety information, tips to be prepared and other resources

www.youtube.com/user/pgevideo



To view webinar slides and recordings, visit

pge.com/firesafetywebinars



For more information

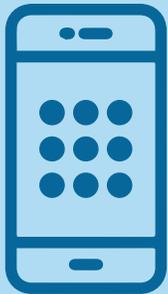
Visit pge.com/wildfiresafety
Call us at **1-866-743-6589***
Email us at wildfiresafety@pge.com



**Translated support available*



Insert your questions or feedback into the chat function.



Ask your question or provide your feedback verbally by unmuting your line.

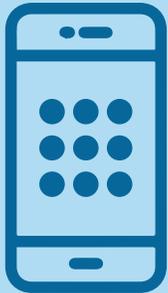
- 
- Where does PG&E plan to underground 10,000 miles of powerlines?**
 - How has the EPSS program changed since 2021?**
 - How can my community better utilize the customer resources that PG&E offers?**

Resilience Planning Flyover





Insert your questions or feedback into the chat function.



Ask your question or provide your feedback verbally by unmuting your line.



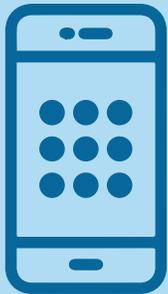
Can you show me how undergrounding a section of powerlines can help to minimize Public Safety Power Shutoff impacts?



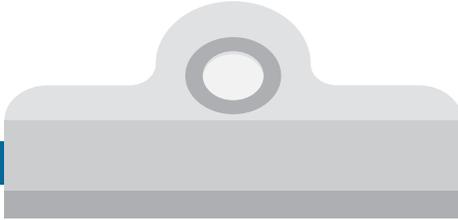
What do EPSS changes look like in my community?



Insert your questions or feedback into the chat function.



Ask your question or provide your feedback verbally by unmuting your line.

- 
- Which resilience topics would you like us to cover in future Regional Working Group meetings?**
 - What resilience efforts are most important to your community?**
 - What changes (if any) would you make to the Regional Working Group meeting structure?**

- 
Meeting survey shared with participants to gather feedback on approach and content of regional working group

- 
Follow-up on items identified by local agencies/stakeholders

- 
Upcoming meetings
 - Q2 2022 Regional Working Group Meetings
 - Ongoing Local Government Engagement

2022 REGIONAL WORKING GROUP CALENDAR

TIMING	TOPICS
Q2 2022	Public Safety Power Shutoff and Wildfire Safety Updates

Beginning next quarter

we plan to send invites from

PSPSRegionalWorkingGroups@pge.com



Thank You



Appendix





Performance Against Our 2021 WMP Goals

Key 2021 WMP Programs

System Hardening

Includes **70** miles of undergrounding

211 MILES **117%** HARDENED

180 TOTAL MILES BY 12/31/21

Enhanced Vegetation Management

Completed **98%** of work on the top 20% highest risk circuits, **exceeding goal of 80%**

1,983 MILES **110%** COMPLETED

1,800 TOTAL MILES BY 12/31/21

Additional Programs to Mitigate Wildfire Risk and Improve Situational Awareness

Weather Stations

308 STATIONS **103%** INSTALLED

300 TOTAL STATIONS BY 12/31/21

Sectionalizing Devices

269 DEVICES **108%** OPERATIONAL

250 TOTAL DEVICES BY 12/31/21

High-Definition Cameras

153 CAMERAS **113%** INSTALLED

135 TOTAL CAMERAS BY 12/31/21

Transmission Line Switches

38 SWITCHES **131%** INSTALLED

29 TOTAL SWITCHES BY 9/1/21

NEW

2021 Programs Beyond WMP

Launched program to undergrounding powerlines
~10K miles as part of a multiyear effort

Implemented Enhanced Powerline Safety Settings (EPSS) on
~45% of HFTD circuit miles in 2021



Outstanding Follow Up and Action Items

Below is a list of the follow up and action items identified during the previous Regional Working Group meetings as well as corresponding statuses.

Action Item	Agency	Status
Requested follow up regarding suggestions for improving Meals on Wheels offerings for seniors who are outside of delivery service areas.	Disability Action Center	In Progress



Status of Planned/Upcoming Resilience Efforts – Systemwide

Program	County	Site Name/Area	Status	Estimated Completion
Distribution Microgrids	Butte	Magalia	Construction Complete	Q3 2022*
	Calaveras	Arnold	Planning	Q4 2022
	El Dorado	Georgetown	Construction Complete	Q3 2022*
	El Dorado	Pollock Pines	Construction Complete	Q3 2022*
	Lake	Clearlake North	Planning	Q4 2022
	Lake	Lucerne	Planning	Q4 2022
	Lake	Middletown	Construction Complete	Q3 2022*
	Napa	Angwin	Construction Complete	Q3 2022*
	Napa	Calistoga	Construction Complete	Q3 2022*
	Placer	Colfax	Construction Complete	Q4 2022*
	Placer	Foresthill	Construction Complete	Q3 2022*
	Shasta	Shingletown	Construction Complete	Q3 2022*
	Tuolumne	Groveland	Planning	Q4 2022
Islanding	Calaveras**	Salt Springs Island	Ready to Operate	N/A
	Calaveras***	West Point Island	Ready to Operate	N/A
	Humboldt	Humboldt Bay Island	Ready to Operate	N/A
	Plumas	Caribou Island	Ready to Operate	N/A
	Tehama	Red Bluff Island	Ready to Operate	N/A
	Tuolumne	Spring Gap	Ready to Operate	N/A

Local work plans are subject to change and data is based on the best available information at this time.

*Temporary generation procurement and energization plan finalization targeted completion of 9/1.

**Also serves portions of Amador and Alpine Counties.

***Also serves portions of Amador County.



Status of Planned/Upcoming Resilience Efforts – Systemwide

Program	County	Site Name/Area	Status	Estimated Completion
Remote Grids	Mariposa	Briceburg	Operational	N/A
	Mariposa	Miami Mountain	Planning	Q4 2022
	Tehama	Corning 1	Planning	Q4 2022
	Tehama	Corning 2	Planning	Q4 2022
	Mariposa	Mariposa	Planning	Q4 2022
	Sonoma	Pepperwood Preserve	Planning	Q4 2022
	Tehama	Manton 1	Planning	Q2 2023
	Tehama	Manton 2	Planning	Q2 2023
	Tehama	Manton 3	Planning	Q2 2023
	Madera	Coarsegold	Planning	Q2 2023
	Yuba	Bangor	Planning	Q2 2023
	Lake	Clearlake	Planning	Q2 2023
	Lake	Middletown	Planning	Q2 2023
	Tulare	Whitaker Forest	Planning	Q2 2023
	Tuolumne	Vallecito	Planning	Q2 2023
	Glenn	Alder Springs	Planning	Q3 2023
	San Luis Obispo	Carrizo Plains	Planning	Q3 2023
Marin	Inverness	Planning	Q3 2023	

Local work plans are subject to change and data is based on the best available information at this time.



Systemwide PSPS Customer Support

Customer Support Resources



77

partnerships with community-based organizations



13,079

batteries provided



1,044

hotel stays provided

Food Replacement Resources



26

participating Meals on Wheels in 22 counties



22

supporting food banks in 37 counties

North Valley/Sierra Community-Based Organizations

CFILC

- Disability Action Center
- Foundation of Resources for Equality and Employment for the Disabled
- Independent Living Resources of Solano & Contra Costa Counties
- Resources for Independent Living

Food Banks

- Community Action Agency of Butte County
- Dignity Health Connected Living
- El Dorado Food Bank
- Food Bank of Contra Costa & Solano
- Food Bank of Nevada County
- Placer Food Bank
- Yolo Food Bank
- Yuba Sutter Food Bank
- Lost Sierra Food Project

Meals on Wheels

- Chico Meals on Wheels
- Dignity Health Connected Living
- Gold Country Community Services
- Meals on Wheels Solano County
- Tehama County Community Action Agency
- Passages
- Yuba Sutter Meals on Wheels (Area Agency on Aging)

In-Language Media

- Movimiento Cultural del a Union Indígena
- Redirect Nuevo Camino & Ocelotecame
- KRON4.2-Skylink TV
- KTVO-Sing Tao Radio
- KDTV Univision
- KSCO Telemundo
- Radio Lazer Sacramento
- Lotus Radio Sacramento
- Radio Lazer SJ
- Ethno FM Radio
- Fusion Latina Network
- KBBF Radio
- D'Primeramano
- La Voz
- KTSF-TV
- KBIF-Radio
- Russian American Media
- KSFN-News for Chinese Radio
- KBTv-Crossings TV
- KIQI Radio
- California Black Media/Sac Cultural Hub
- PAMA One Radio

Community Wildfire Safety Program

Q1 2022 REGIONAL WORKING GROUP

North Coast Region

March 24, 2022



Virtual Sign-In Reminder

Please “sign-in” using the chat function and provide your **name, organization and email**.



Safety

General Safety Tips



Identify two exit routes from your current work area in the event of a fire or other emergency.



“Drop, cover and hold” in the event of an earthquake.



Notify emergency services if you are in danger. You can also ask for help by putting a message in the chat function of this meeting.



Virtual Sign-In Reminder

Please “sign-in” using the chat function and provide your **name, organization and email**.

WORKING GROUP PARTICIPANTS:

- Access and Functional Needs Representatives
- City/County Staff
- Community-Based Organizations
- Community Choice Aggregators
- County Offices of Emergency Services
- Electric Co-Ops
- First Responders
- Health and Human Services Representatives
- Publicly Owned Electric Utilities
- Red Cross Staff
- Small, Multi-Jurisdictional Electric Utilities
- Telecommunications Providers
- Tribal Governments
- Water Agencies
- Filsinger Energy Partners
- California Public Utilities Commission Staff

DISCUSSION TOPICS:

- 1 2022 Wildfire Mitigation Plan Update**
- 2 Community Wildfire Safety Program Update**
- 3 Local Resilience Efforts**
- 4 Resilience Planning Flyover**
- 5 Open Discussion/Q&A**

MEETING PRESENTERS

Carl Schoenhofer | Division Lead

Mark van Gorder | Local Government Affairs

Richard Noonan | Public Safety Specialist

Denise Shemenski | Tribal Liaison

2022 Wildfire Mitigation Plan Update



PG&E's Wildfire Mitigation Plan (WMP) was submitted on February 25 and outlines our actions to mitigate wildfire risk, this filing was an update of the 2020-2022 three-year plan submitted last year.

WMP Purpose

In compliance with California SB 901, AB 1054 and direction from the California's Office of Energy and Infrastructure Safety (OEIS), our WMP:

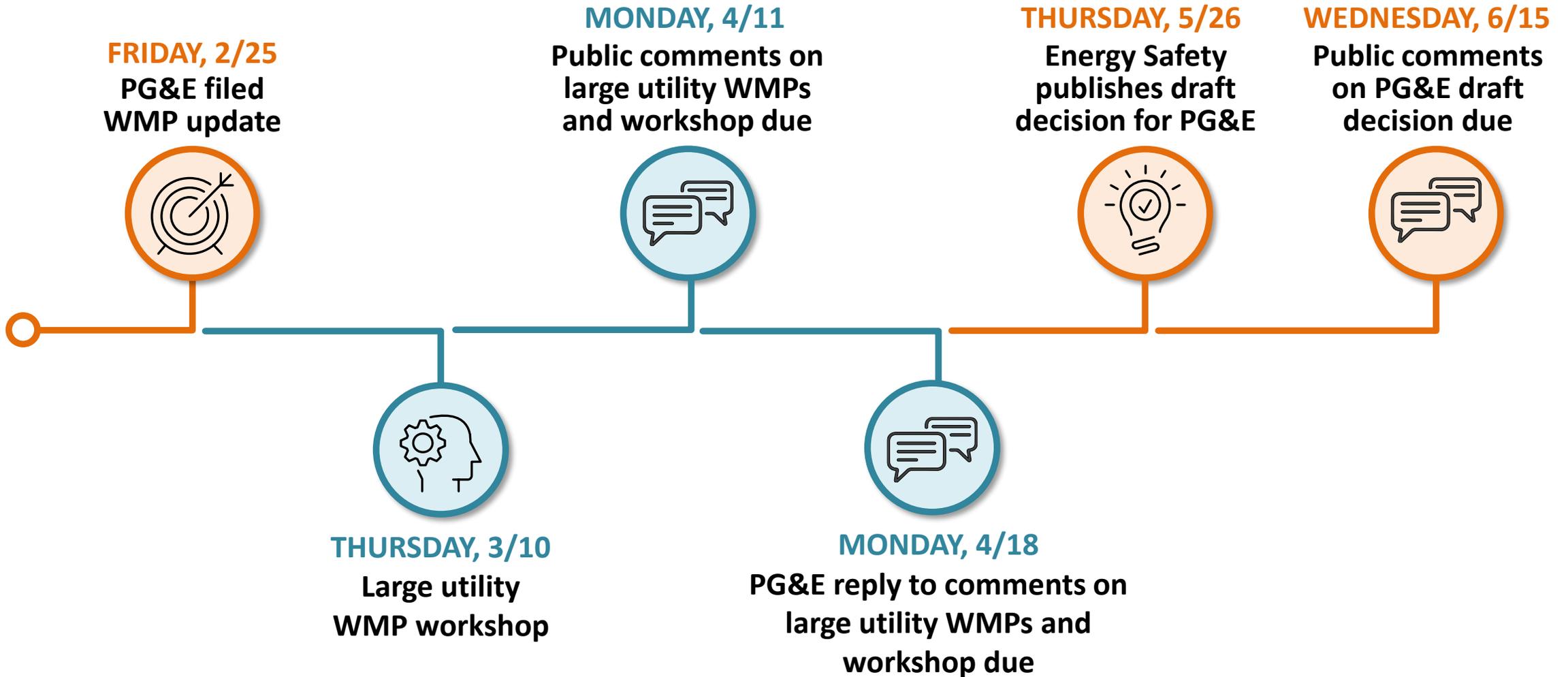
- ✔ Supports our ability to **mitigate wildfire risk**
- ✔ Aligns with strategic goals of **engaging with our stakeholders**
- ✔ Provides a **single source** for wildfire activities
- ✔ Fulfills **regulatory requirements**

Read the plan at

pge.com/wildfiremitigationplan



Important 2022 Wildfire Mitigation Plan Dates



Community Wildfire Safety Program Update



Key Wildfire Safety Objectives in 2022

Reduce Wildfire Potential



- **Prevent catastrophic wildfires** by rebuilding and modernizing the system
- **Lessen the frequency** of ignitions
- **Limit the spread** of potential ignitions
- **Focus efforts** on the highest risk locations

Reduce Customer Impact



- **Improve coordination** with, and support of, customers and hometowns
- **Reduce the number** of customers impacted by safety outages
- **Reduce the duration** of safety outages

Improve Situational Awareness

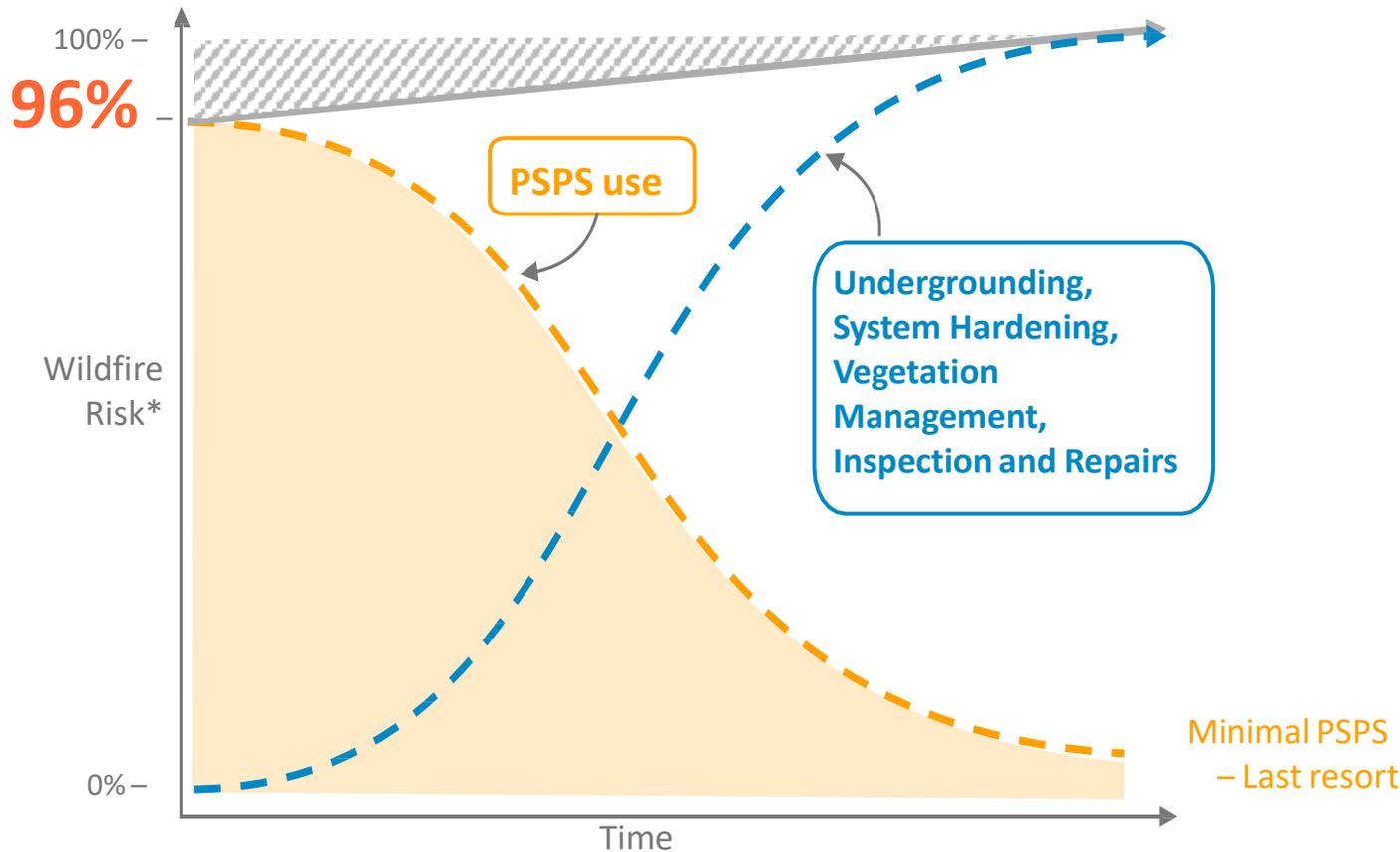


- **Enhance understanding** of where risk is located
- **Further refine weather modeling** and ability to detect wildfires
- **Improve our ability to capture and analyze data** from all hazards



Improving Public Safety Power Shutoffs

As we work to build the electric system of the future, with efforts like undergrounding and system hardening, Public Safety Power Shutoffs (PSPS) as a measure of last resort will continue to decline.



*Based on applying current PSPS protocols to catastrophic wildfires between 2012 and 2020, resulting in mitigating 96% of the structures impacted.

PSPS impacts have declined significantly through new, advanced technologies and improvements to the electric system infrastructure.

	2019	2020	2021
PSPS EVENTS	7	6	5
CUSTOMERS IMPACTED	2,014,000	653,000	80,400
DAMAGE/ HAZARDS	722	257	442
AVERAGE OUTAGE DURATION (HRS)	43	35	31
AVERAGE RESTORATION TIME (HRS)	17	10	12

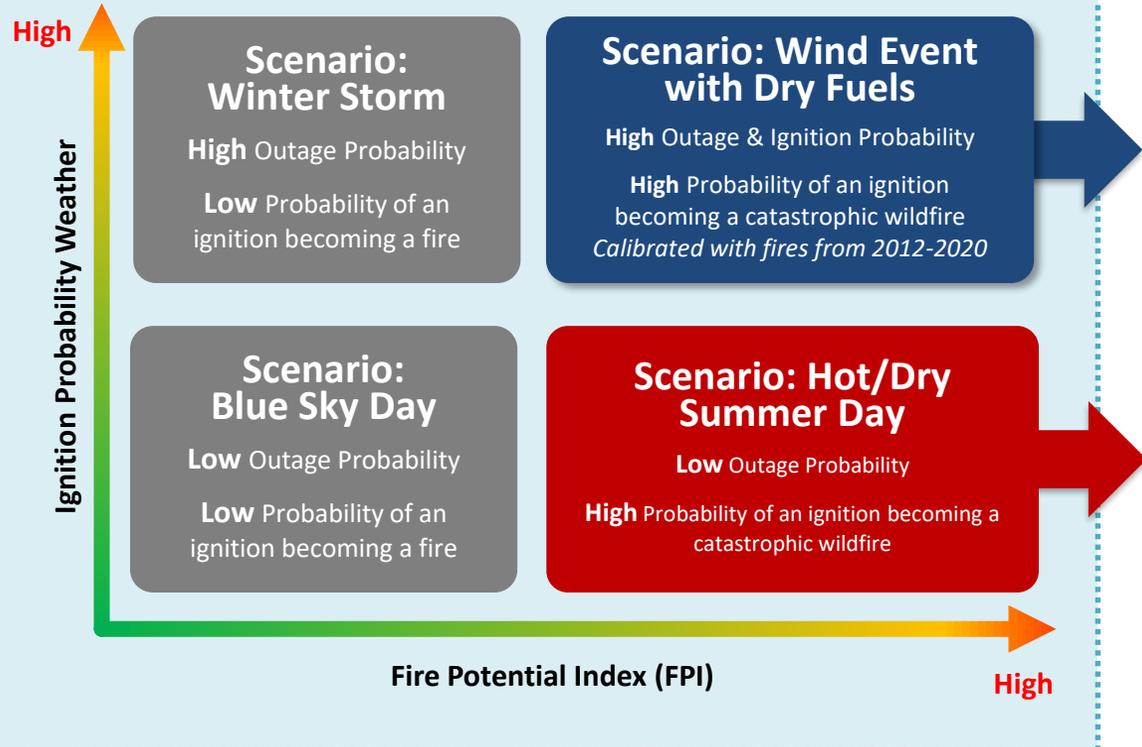
Data is approximate

Weather-Driven Wildfire Prevention Efforts



Year-Round Wildfire Mitigation

- Undergrounding
- System Hardening
- Enhanced Inspection and Repair



Weather-Driven Response

Public Safety Power Shutoff (PSPS)

Turning off power during severe weather to prevent tree branches and debris from contacting energized lines.

PSPS IN 2021

17% fewer outages*

88% fewer customers impacted*

2022 FOCUS

Continuing to refine program and reducing impacts in the areas at highest risk

Enhanced Powerline Safety Settings (EPSS)

Using equipment on powerlines that allows them to turn off power within one tenth of a second if a tree branch or object strikes the line.

EPSS IN 2021

In place on ~45% of HFTD circuit miles

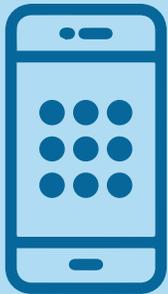
2022 FOCUS

Expanding to 100% of HFTD circuit miles

*Compared to 2020



Insert your questions or feedback into the chat function.



Ask your question or provide your feedback verbally by unmuting your line.



What else would you like to know about PG&E's recent Wildfire Mitigation Plan filing?

Local Resilience Efforts

Undergrounding

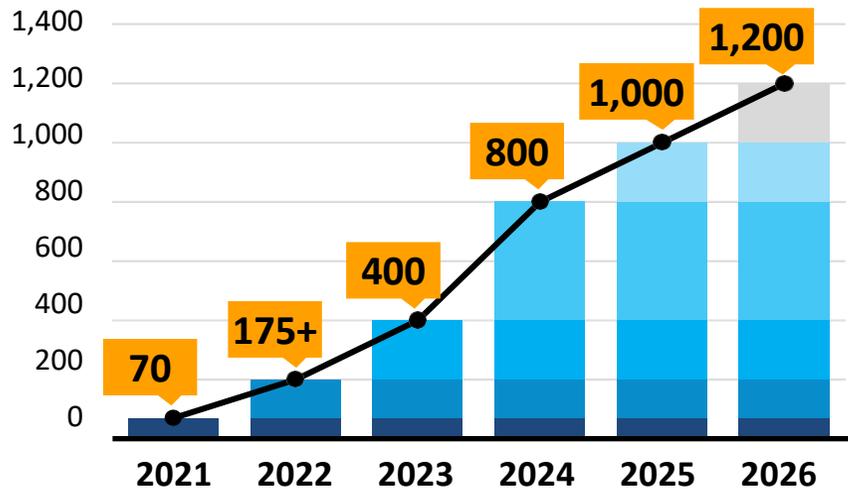




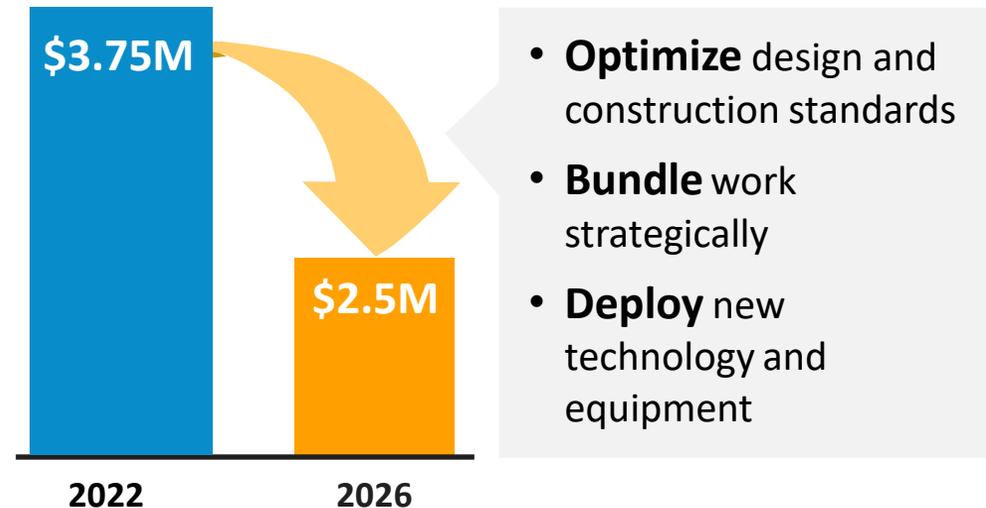
Undergrounding 10,000 Miles

PG&E is undertaking a major new initiative to underground approximately **10,000 miles of powerlines** in high fire risk areas.

Target Miles Per Year



Target Cost Per Mile



This commitment represents the largest effort in the U.S. to underground power lines as a wildfire risk mitigation measure.

Safe



Mitigates
Risk

Dependable



Reduces PSPS and EPSS
Improves Reliability

Sustainable



Saves Trees and Beautifies
our Hometowns

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

Underground Mile Identification Criteria

PG&E is identifying areas for our Undergrounding Program with a focus on Wildfire and PSPS risk reduction.
The below criteria is being used to identify miles for future projects:

Wildfire and PSPS Mitigation

- Probability & consequences of ignition
- PSPS impacts/reduction
- Public safety risk deduction
- Tree density
- Climate change

Integrated Planning

- Reliability risk reduction
- Impacts to other programs including vegetation management, EPSS, etc.
- Alternative solutions and routes
- Ingress/egress for evacuation & emergency responders

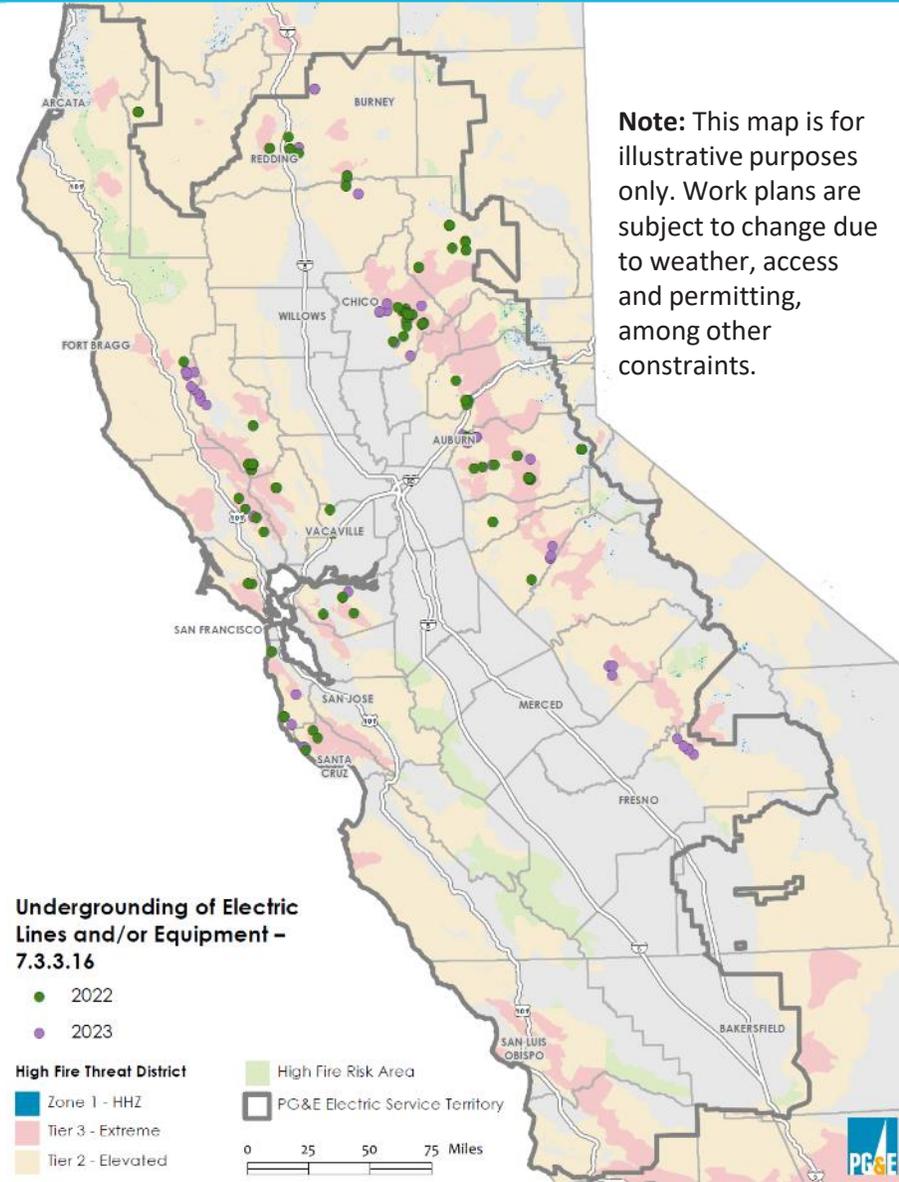
Constructability and Feasibility

- Longer runs & bundling work in connected areas
- Land rights & easements
- At grade/non-trench areas
- Cost of project

North Coast Region 2022-2023 Undergrounding Work

Planned Undergrounding Miles Work in North Coast Region	
COUNTY	2022-2023
Lake	48
Marin	3
Mendocino	3
Napa	6
Sonoma	5
Trinity	9

Data is as of 02/1/22 and does not include undergrounding work related to the California Public Utilities Commission's Rule 20 Program.



What Undergrounding May Look Like In Your Community

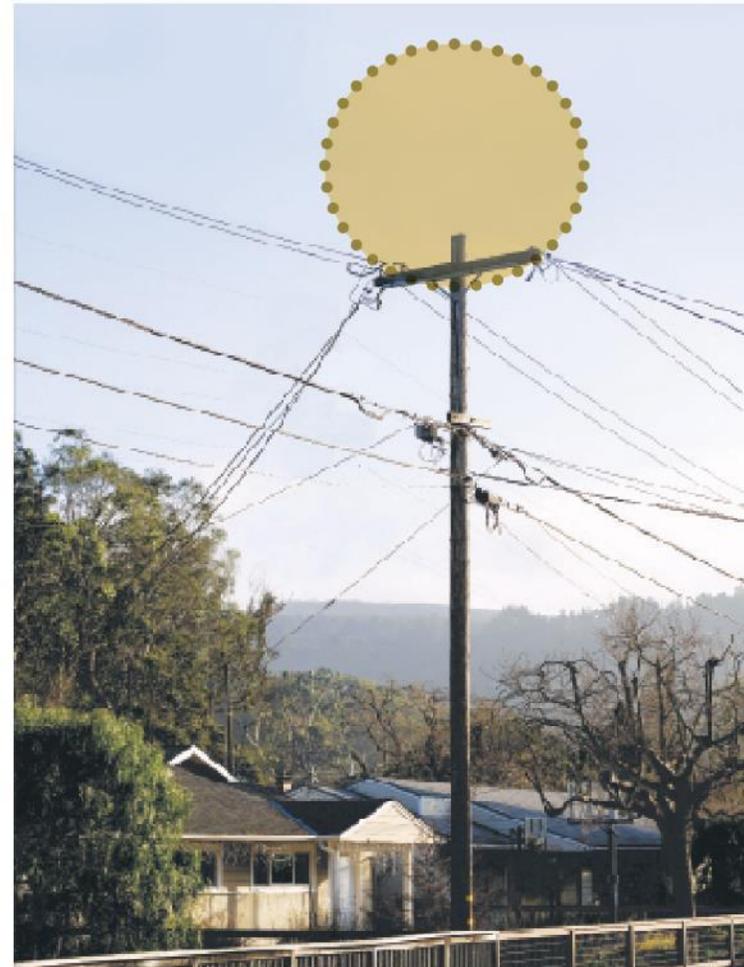
BEFORE

Powerlines above ground



AFTER

Primary lines underground





Undergrounding in Lake County

Strengthening the electric system by undergrounding our powerlines in and near high fire-threat areas.



**UNDERGROUNDING
PLANNED 2022-2023**

48 miles

Undergrounding

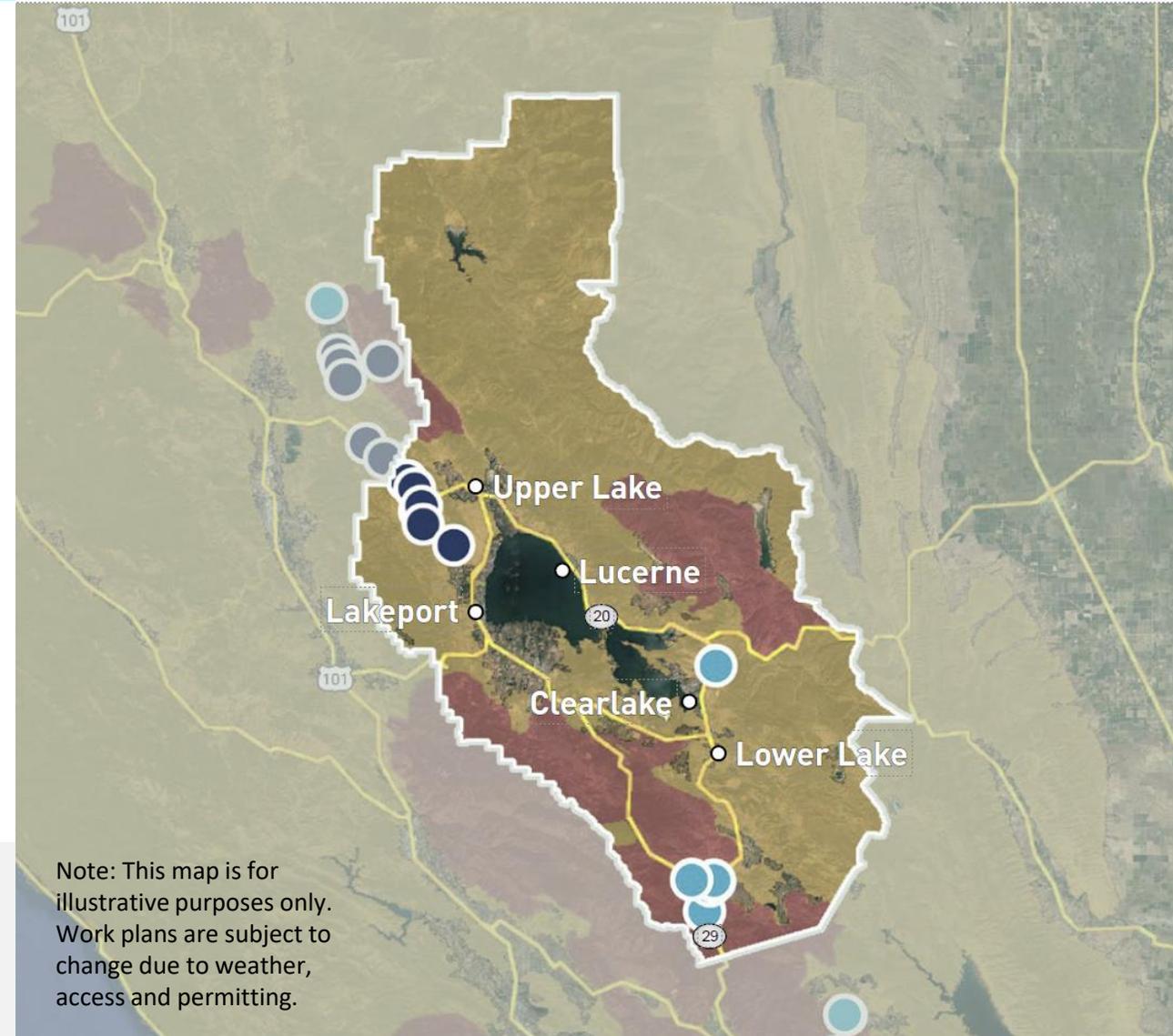
- 2022 Planned/Completed Miles
- 2023 Planned Miles

High Fire-Threat District

- Tier 3 - Extreme
- Tier 2 - Elevated

Learn more about our undergrounding efforts at

pge.com/systemhardening



Data is as of 02/1/22 and does not include undergrounding work related to the California Public Utilities Commission's Rule 20 Program.



Undergrounding in Marin County

Strengthening the electric system by undergrounding our powerlines in and near high fire-threat areas.



**UNDERGROUNDING
PLANNED 2022-2023**

3 miles

Undergrounding

 2022 Planned/Completed Miles

 2023 Planned Miles

High Fire-Threat District

 Tier 3 - Extreme

 Tier 2 - Elevated

Learn more about our undergrounding efforts at

pge.com/systemhardening 



Note: This map is for illustrative purposes only. Work plans are subject to change due to weather, access and permitting.

Data is as of 02/1/22 and does not include undergrounding work related to the California Public Utilities Commission's Rule 20 Program.



Undergrounding in Mendocino County

Strengthening the electric system by undergrounding our powerlines in and near high fire-threat areas.



**UNDERGROUNDING
PLANNED 2022-2023**

3 miles

Undergrounding

- 2022 Planned/Completed Miles
- 2023 Planned Miles

High Fire-Threat District

- Tier 3 - Extreme
- Tier 2 - Elevated

Learn more about our undergrounding efforts at

pge.com/systemhardening



Note: This map is for illustrative purposes only. Work plans are subject to change due to weather, access and permitting.

Data is as of 02/1/22 and does not include undergrounding work related to the California Public Utilities Commission's Rule 20 Program.



Undergrounding in Napa County

Strengthening the electric system by undergrounding our powerlines in and near high fire-threat areas.



**UNDERGROUNDING
PLANNED 2022-2023**

6 miles

Undergrounding

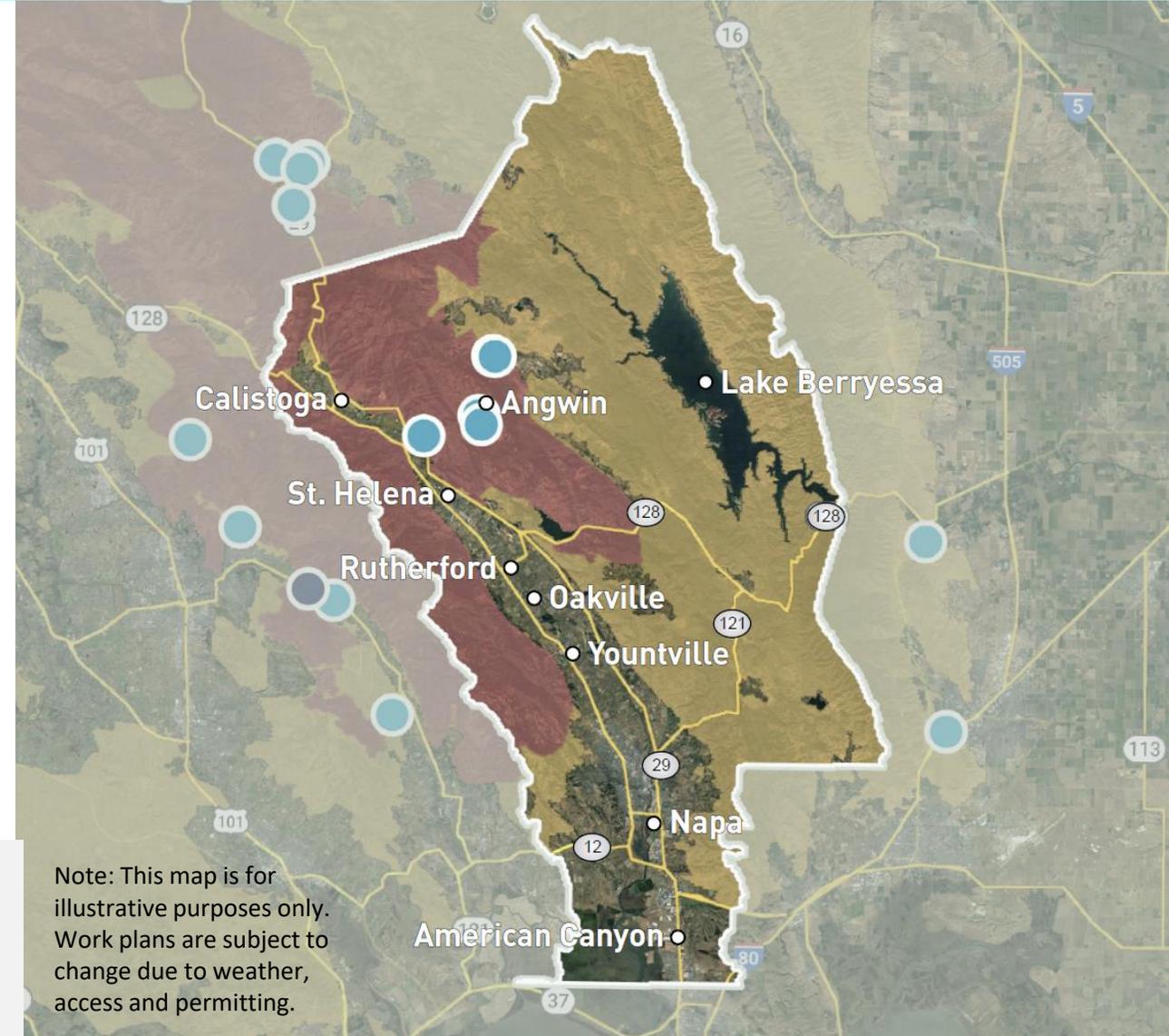
- 2022 Planned/Completed Miles
- 2023 Planned Miles

High Fire-Threat District

- Tier 3 - Extreme
- Tier 2 - Elevated

Learn more about our undergrounding efforts at

pge.com/systemhardening



Data is as of 02/1/22 and does not include undergrounding work related to the California Public Utilities Commission's Rule 20 Program.



Undergrounding in Sonoma County

Strengthening the electric system by undergrounding our powerlines in and near high fire-threat areas.



**UNDERGROUNDING
PLANNED 2022-2023**

5 miles

Undergrounding

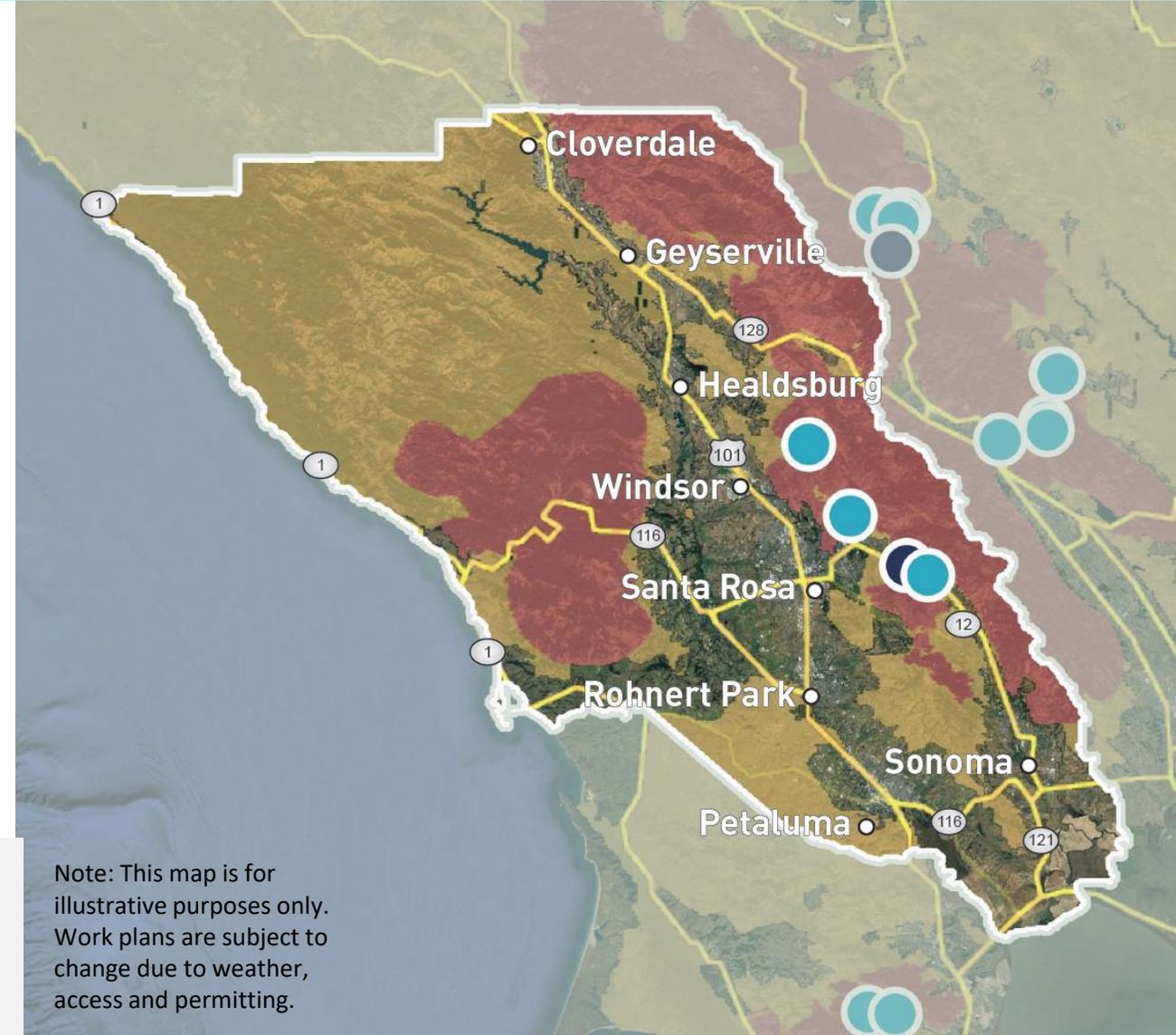
- 2022 Planned/Completed Miles
- 2023 Planned Miles

High Fire-Threat District

- Tier 3 - Extreme
- Tier 2 - Elevated

Learn more about our undergrounding efforts at

pge.com/systemhardening



Note: This map is for illustrative purposes only. Work plans are subject to change due to weather, access and permitting.

Data is as of 02/1/22 and does not include undergrounding work related to the California Public Utilities Commission's Rule 20 Program.



Undergrounding in Trinity County

Strengthening the electric system by undergrounding our powerlines in and near high fire-threat areas.



**UNDERGROUNDING
PLANNED 2022-2023**

9 miles

Undergrounding

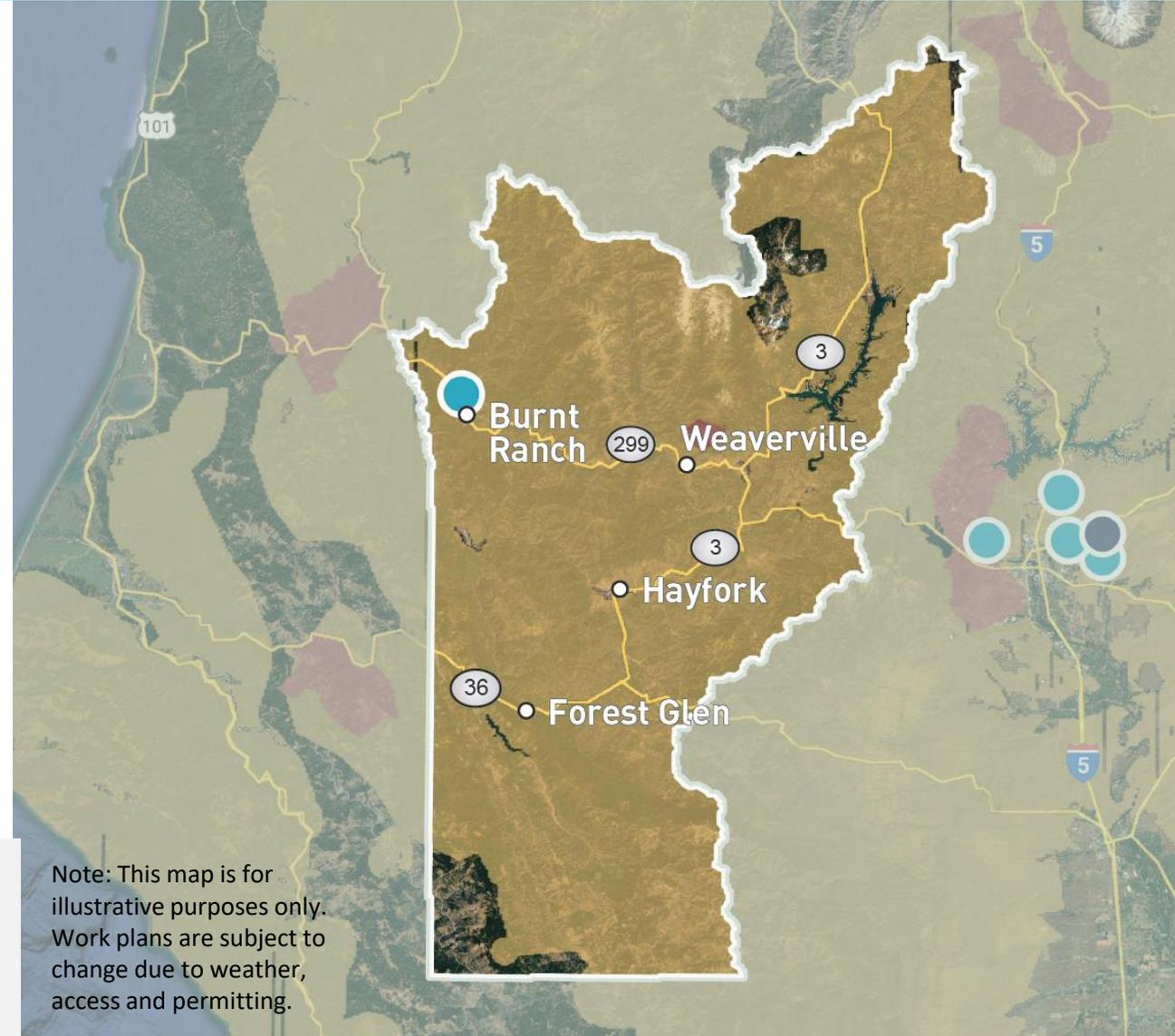
- 2022 Planned/Completed Miles
- 2023 Planned Miles

High Fire-Threat District

- Tier 3 - Extreme
- Tier 2 - Elevated

Learn more about our undergrounding efforts at

pge.com/systemhardening



Data is as of 02/1/22 and does not include undergrounding work related to the California Public Utilities Commission's Rule 20 Program.

Local Resilience Efforts

Enhanced Powerline Safety Settings



Enhanced Powerline Safety Settings (EPSS): A tool to help prevent wildfires

HOW IT WORKS

PG&E powerlines have equipment that allows them to turn off power within one-tenth of a second if a tree branch or other object strikes the line.



We are expanding these settings across 25,500 distribution line miles in areas of greatest wildfire risk.



SAFETY SETTINGS IN ACTION
In 2021, these settings prevented a potential ignition when a tree branch fell into a powerline and power quickly and automatically turned off.

WHY WE DO IT



Quickly and automatically shutting off power when there is a problem can help stop wildfires before they have a chance to start.

PREVENTING WILDFIRES

~80% 

decrease in CPUC-reportable ignitions in 2021 on EPSS-enabled circuits.*

*Compared to the prior three-year average.

What Are Enhanced Powerline Safety Settings?

1 When an **object strikes the line** or a fault occurs...

To help prevent wildfires during the hot and dry season, we adjust the sensitivity settings on our equipment to quickly and automatically turn off power if the system detects a problem.

2 ...protective devices detect the change in current and **shut off power within one-tenth of a second.**

3 We check the lines for damage before safely restoring power. This process can take several hours, depending on terrain.

Patrols are done by helicopter, truck or on foot during daylight hours.

POWER OFF

PG&E

For illustrative purposes only. Graphic is not to scale.

Refining Our EPSS Program to Reduce Impacts on Customers



Improvements In Place

- **Fine-tuning sensitivity** on our equipment to reduce the likelihood of an outage
- **Increasing communication** between our devices and patrol crews to reduce the size of outages
- **Amended patrol guidance** for EPSS-enabled circuits



Improvements Underway

- **Minimizing impacts** to customer reliability
- Installation of additional **animal protection on our equipment**
- **Targeted vegetation clearing** to prevent branch and tree fall-ins



Supporting Customers

- Expanding **generator and battery rebate** support
- Enhancing **customer and stakeholder engagement**
- **More accurate restoration times** during outages

Local Resilience Efforts

Microgrids, Remote Grids and Backup Generation





Substation Microgrid Program Update

PG&E has made significant improvements to our weather modeling and technology capabilities, grid operations and overall system resiliency.

As a result of these improvements, substations prepared for temporary generation in 2020 and 2021 are **now significantly less likely** to experience a PSPS-related outage than they were during previous years.

In 2021, **none of the substations prepared for temporary generation were utilized** to support customers during a PSPS or capacity related outage event.

Because of these improvements, PG&E is not planning to reserve any temporary generators for the purpose of energizing substations for PSPS outages in 2022.

Substation Microgrid Site	2021 PSPS Usage
BRUNSWICK (Nevada County)	Not utilized during 2021
CLEAR LAKE (Lake County)	Not utilized during 2021
CLOVERDALE (Sonoma County)	Not utilized during 2021
HARTLEY (Lake County)	Not utilized during 2021
HOOPA (Humboldt County)	Not utilized during 2021
KONOCTI (Lake County)	Not utilized during 2021
LOW GAP (Trinity County)	Not utilized during 2021
POINT MORETTI (Santa Cruz County)	Not utilized during 2021
WILLOW CREEK (Humboldt County)	Not utilized during 2021
BIG BASIN* (Santa Cruz County)	Not utilized during 2021
DOBBINS* (Yuba County)	Not utilized during 2021
WEIMAR* (Placer County)	Not utilized during 2021

*Energization plan only.



Systemwide Grid Resilience Efforts

In 2022, we are continuing to build upon our distribution microgrid and remote grid programs and plan to continue to utilize our previously identified islanding locations when possible.

Program	Description	2020 Total Sites	2021 Total Sites	2022 Total Sites Planned
Distribution Microgrids	Microgrids prepared to energize “main street” corridors, central community resources and critical facilities in areas that frequently experience PSPS events.	3*	8**	13
Remote Grids	Remote Grids use a combination of solar power, battery storage and propane generation to provide energy to customers independent from the larger electric grid.	0	1	2***
Islanding Locations	Reconfiguration of local generation sources to allow certain areas to be separated from the larger electric grid and remain energized during PSPS events.	0	6	6

Local work plans are subject to change and data is based on the best available information at this time.

*Does not include 4 additional sites that were made ready to operate using a temporary configuration in 2020

**Does not include 1 additional site that was made ready to operate using a temporary configuration in 2021

***Additional sites may also be completed in 2022



Grid Resilience Efforts – North Coast Region

COUNTY	 COMPLETE THROUGH 2021	 NEW 2022 SITES
Humboldt	1 LOCATION	0 LOCATIONS
Lake	1 LOCATION	2 LOCATIONS
Napa	2 LOCATIONS	0 LOCATIONS
Sonoma	0 LOCATIONS	1 LOCATION

Note: Additional microgrid work is not currently planned in the remaining counties within the region.

PG&E is prioritizing its wildfire safety work by locations with the highest risk of wildfire and locations that will reduce PSPS impacts for the most customers.

Local work plans are subject to change and data is based on the best available information at this time.



-  Distribution Microgrid (CONSTRUCTION COMPLETE*)
 -  Distribution Microgrid (CONSTRUCTION PLANNED/IN PROGRESS)
 -  Humboldt Bay Generating Station Island**
 -  Pepperwood Remote Grid
- *Temporary generation procurement and energization plan finalization targeted completion of 9/1.
- **Can serve up to 66,000 customers in Humboldt County when in use.

Local Resilience Efforts

EPSS/PSPS Customer Support





Self-Generation Incentive Program

Providing customers rebates for battery storage and renewable generation.

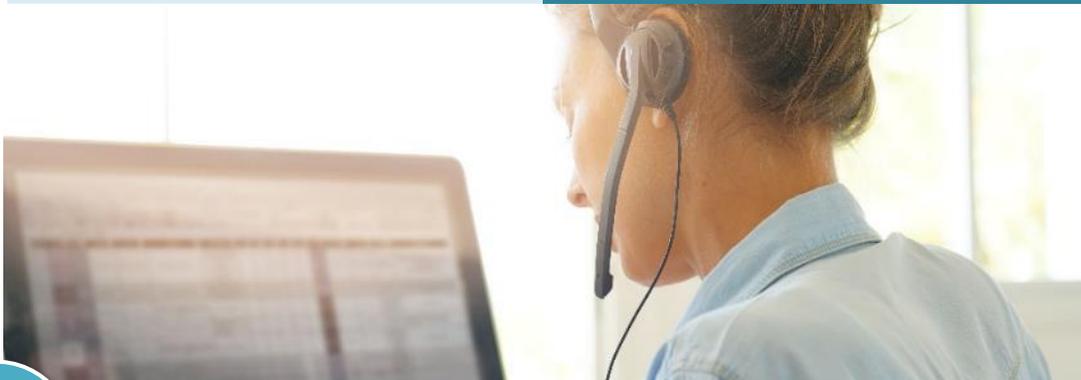
pge.com/batteryincentive



Portable Battery Program

Supporting eligible customers with fully subsidized portable battery solutions.

pge.com/pspsresources



Generator and Battery Rebate* Program

Rebates for eligible customers to purchase a qualifying generator or battery.

pge.com/backupper



Partnership with 211

24/7 free and confidential support and access to local resources during periods of critical need via calls or texts to 211.

211.org



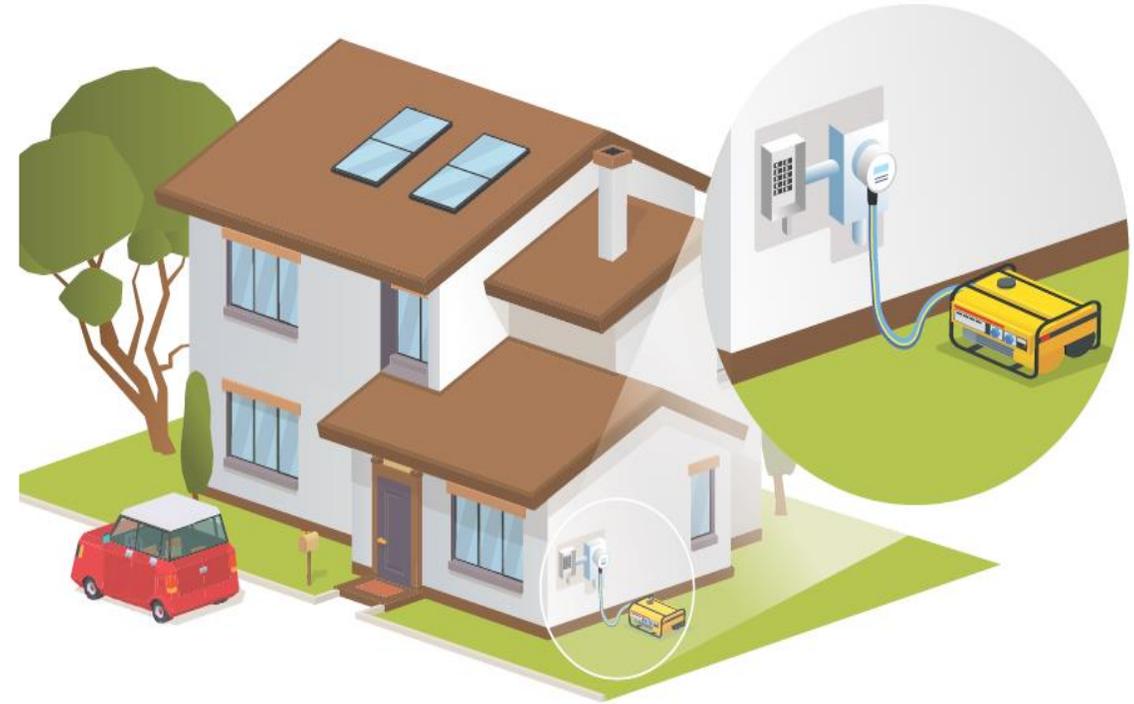
**Please note the portable battery program is not eligible for customers experiencing EPSS.*

Backup Power Transfer Meter Support

PG&E has developed a new meter program to help our customers safely power their homes during emergency outages.

- 
 The program provides a **safe way for customers to connect generator power** to their homes.
- 
 The **power is delivered directly to the circuit breaker** when you connect the generator to the meter and will also eliminate any power cords running through your home.
- 
 Be sure to **start the generator at a safe location** and program to your home specifics.
- 
 This program also provides **an affordable solution** for customers who are unable to afford solar or backup battery systems.

pge.com/transfermeter



When utility power returns customers should:

- 01** Turn off your generator
- 02** Adjust your breaker panel to set all circuit to the “on” position
- 03** Unplug the cord from the generator to disconnect from the meter



More Information and Tools For Customers to Prepare

BEFORE PSPS AND EPSS OUTAGES

- **See if you qualify for backup power support** at pge.com/backuppower.

Generator rebates for customers who rely on well water	Portable batteries for Medical Baseline customers in high fire risk areas
---	--
- **Apply for the Medical Baseline Program** to receive energy savings and extra outreach before a PSPS at pge.com/medicalbaseline.
- **Self-identify for Vulnerable Customer Status** if you or someone in your home's life or health would be at risk should electric or gas service be disconnected at pge.com/vulnerable.

DURING PSPS OUTAGES

- **Find Community Resource Centers** to charge personal and medical devices and get basic supplies during a PSPS at pge.com/crc.
- **Replace lost food** at your local food bank during and up to three days after an outage, visit pge.com/pspsresources.
- **Prepare an emergency plan** including portable backup power, hotel accommodations and accessible transportation at disabilitydisasteraccess.org.

Visit PG&E's YouTube Channel

To view more safety information, tips to be prepared and other resources

www.youtube.com/user/pgevideo



To view webinar slides and recordings, visit

www.pge.com/firesafetywebinars



For more information

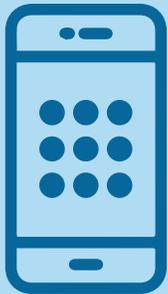
Visit pge.com/wildfiresafety
 Call us at **1-866-743-6589***
 Email us at wildfiresafety@pge.com



**Translated support available*



Insert your questions or feedback into the chat function.



Ask your question or provide your feedback verbally by unmuting your line.

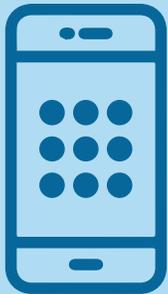
- 
- Where does PG&E plan to underground 10,000 miles of powerlines?**
 - How has the EPSS program changed since 2021?**
 - How can my community better utilize the customer resources that PG&E offers?**

Resilience Planning Flyover





Insert your questions or feedback into the chat function.



Ask your question or provide your feedback verbally by unmuting your line.



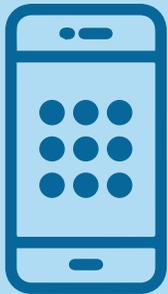
Can you show me how undergrounding a section of powerlines can help to minimize Public Safety Power Shutoff impacts?



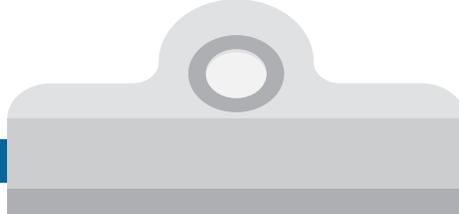
What do EPSS changes look like in my community?



Insert your questions or feedback into the chat function.



Ask your question or provide your feedback verbally by unmuting your line.

- 
- Which resilience topics would you like us to cover in future Regional Working Group meetings?**
 - What resilience efforts are most important to your community?**
 - What changes (if any) would you make to the Regional Working Group meeting structure?**

- 
Meeting survey shared with participants to gather feedback on approach and content of regional working group

- 
Follow-up on items identified by local agencies/stakeholders

- 
Upcoming meetings
 - Q2 2022 Regional Working Group Meetings
 - Ongoing Local Government Engagement

2022 REGIONAL WORKING GROUP CALENDAR

TIMING	TOPICS
Q2 2022	Public Safety Power Shutoff and Wildfire Safety Updates

Beginning next quarter

we plan to send invites from

PSPSRegionalWorkingGroups@pge.com



Thank You



Appendix

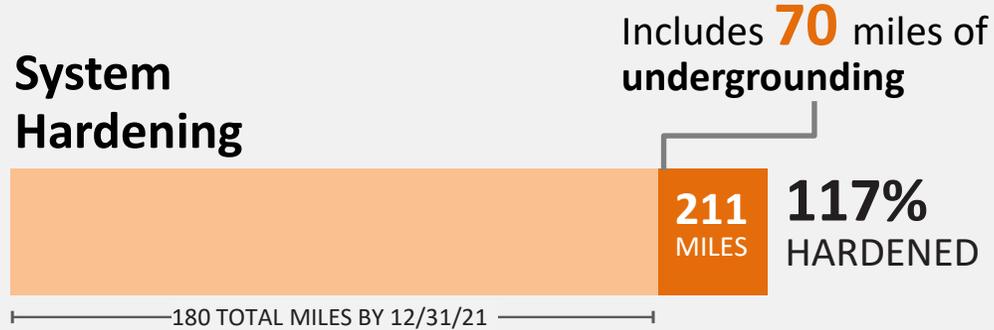




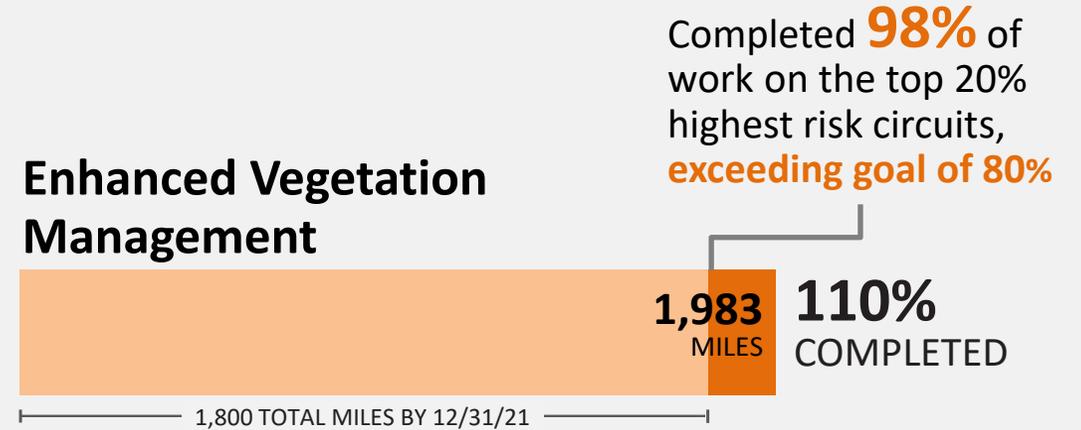
Performance Against Our 2021 WMP Goals

Key 2021 WMP Programs

System Hardening

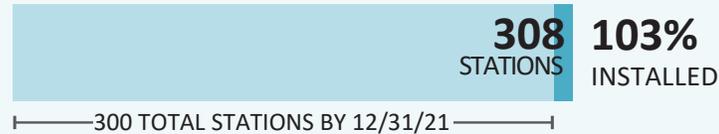


Enhanced Vegetation Management

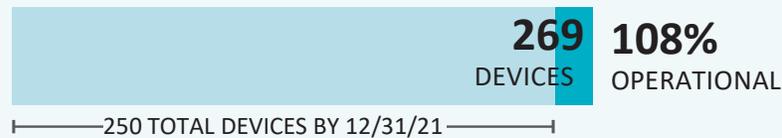


Additional Programs to Mitigate Wildfire Risk and Improve Situational Awareness

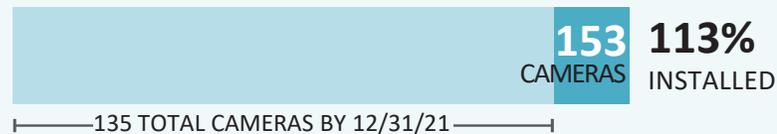
Weather Stations



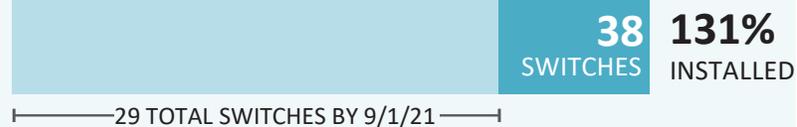
Sectionalizing Devices



High-Definition Cameras



Transmission Line Switches



NEW

2021 Programs Beyond WMP

Launched program to undergrounding powerlines
~10K miles as part of a multiyear effort

Implemented Enhanced Powerline Safety Settings (EPSS) on
~45% of HFTD circuit miles in 2021



Outstanding Follow Up and Action Items

Below is a list of the follow up and action items identified during the previous Regional Working Group meetings as well as corresponding statuses.

Action Item	Agency	Status
Asked to see the new risk model by county to help determine where they will put new fire cameras.	County of Sonoma Office of Emergency Services	In Progress



Status of Planned/Upcoming Resilience Efforts – Systemwide

Program	County	Site Name/Area	Status	Estimated Completion
Distribution Microgrids	Butte	Magalia	Construction Complete	Q3 2022*
	Calaveras	Arnold	Planning	Q4 2022
	El Dorado	Georgetown	Construction Complete	Q3 2022*
	El Dorado	Pollock Pines	Construction Complete	Q3 2022*
	Lake	Clearlake North	Planning	Q4 2022
	Lake	Lucerne	Planning	Q4 2022
	Lake	Middletown	Construction Complete	Q3 2022*
	Napa	Angwin	Construction Complete	Q3 2022*
	Napa	Calistoga	Construction Complete	Q3 2022*
	Placer	Colfax	Construction Complete	Q4 2022*
	Placer	Foresthill	Construction Complete	Q3 2022*
	Shasta	Shingletown	Construction Complete	Q3 2022*
	Tuolumne	Groveland	Planning	Q4 2022
Islanding	Calaveras**	Salt Springs Island	Ready to Operate	N/A
	Calaveras***	West Point Island	Ready to Operate	N/A
	Humboldt	Humboldt Bay Island	Ready to Operate	N/A
	Plumas	Caribou Island	Ready to Operate	N/A
	Tehama	Red Bluff Island	Ready to Operate	N/A
	Tuolumne	Spring Gap	Ready to Operate	N/A

Local work plans are subject to change and data is based on the best available information at this time.

*Temporary generation procurement and energization plan finalization targeted completion of 9/1.

**Also serves portions of Amador and Alpine Counties.

***Also serves portions of Amador County.



Status of Planned/Upcoming Resilience Efforts – Systemwide

Program	County	Site Name/Area	Status	Estimated Completion
Remote Grids	Mariposa	Briceburg	Operational	N/A
	Mariposa	Miami Mountain	Planning	Q4 2022
	Tehama	Corning 1	Planning	Q4 2022
	Tehama	Corning 2	Planning	Q4 2022
	Mariposa	Mariposa	Planning	Q4 2022
	Sonoma	Pepperwood Preserve	Planning	Q4 2022
	Tehama	Manton 1	Planning	Q2 2023
	Tehama	Manton 2	Planning	Q2 2023
	Tehama	Manton 3	Planning	Q2 2023
	Madera	Coarsegold	Planning	Q2 2023
	Yuba	Bangor	Planning	Q2 2023
	Lake	Clearlake	Planning	Q2 2023
	Lake	Middletown	Planning	Q2 2023
	Tulare	Whitaker Forest	Planning	Q2 2023
	Tuolumne	Vallecito	Planning	Q2 2023
	Glenn	Alder Springs	Planning	Q3 2023
	San Luis Obispo	Carrizo Plains	Planning	Q3 2023
Marin	Inverness	Planning	Q3 2023	

Local work plans are subject to change and data is based on the best available information at this time.

Systemwide PSPS Customer Support

Customer Support Resources



77 partnerships with community-based organizations



13,079 batteries provided



1,044 hotel stays provided

Food Replacement Resources



26 participating Meals on Wheels in **22** counties



22 supporting food banks in **37** counties

North Coast Community-Based Organizations

CFILC

- Disability Action Center
- Disability Services & Legal Center
- Marin Center for Independent Living
- Tri Counties Independent Living

Food Banks

- Community Action of Napa Valley Food Bank
- Redwood Empire Food Bank
- The San Francisco Food Bank
- Food for People

Meals on Wheels

- Coastal Seniors
- Community Action Agency of Napa Valley
- Petaluma People Services
- Lakeport Senior Center
- Middletown Senior Center
- Clearlake Senior Center
- Liveoak Senior Center
- Council on Aging, Sonoma County

In-Language Media

- Movimiento Cultural del a Union Indígena
- KRON4.2-Skylink TV
- KTVO-Sing Tao Radio
- KDTV Univision
- Radio Lazer Sacramento
- Lotus Radio Sacramento
- Radio Laser SJ (KSFN)
- KBBF Radio
- La Voz
- Wine Country Radio
- KTSF-TV
- KSJZ-Korean American Radio
- KSFN-News for Chinese Radio
- KIQI Radio
- PAMA One Radio
- Fusion Latina Network

Community Wildfire Safety Program

Q1 2022 REGIONAL WORKING GROUP

South Bay/Central Coast Region

March 24, 2022



Virtual Sign-In Reminder

Please “sign-in” using the chat function and provide your **name, organization and email**.



Safety

General Safety Tips



Identify two exit routes from your current work area in the event of a fire or other emergency.



“Drop, cover and hold” in the event of an earthquake.



Notify emergency services if you are in danger. You can also ask for help by putting a message in the chat function of this meeting.

 **Virtual Sign-In Reminder**
 Please “sign-in” using the chat function and provide your **name, organization and email**.

WORKING GROUP PARTICIPANTS:

- Access and Functional Needs Representatives
- City/County Staff
- Community-Based Organizations
- Community Choice Aggregators
- County Offices of Emergency Services
- Electric Co-Ops
- First Responders
- Health and Human Services Representatives
- Publicly Owned Electric Utilities
- Red Cross Staff
- Small, Multi-Jurisdictional Electric Utilities
- Telecommunications Providers
- Tribal Governments
- Water Agencies
- Filsinger Energy Partners
- California Public Utilities Commission Staff

DISCUSSION TOPICS:

- 1 2022 Wildfire Mitigation Plan Update**
- 2 Community Wildfire Safety Program Update**
- 3 Local Resilience Efforts**
- 4 Resilience Planning Flyover**
- 5 Open Discussion/Q&A**

MEETING PRESENTERS

Pat Mullen | Division Lead

Jean Arnold | Local Government Affairs

Frank Fraone | Public Safety Specialist

Reno Franklin | Tribal Liaison

2022 Wildfire Mitigation Plan Update



PG&E's Wildfire Mitigation Plan (WMP) was submitted on February 25 and outlines our actions to mitigate wildfire risk, this filing was an update of the 2020-2022 three-year plan submitted last year.

WMP Purpose

In compliance with California SB 901, AB 1054 and direction from the California's Office of Energy and Infrastructure Safety (OEIS), our WMP:

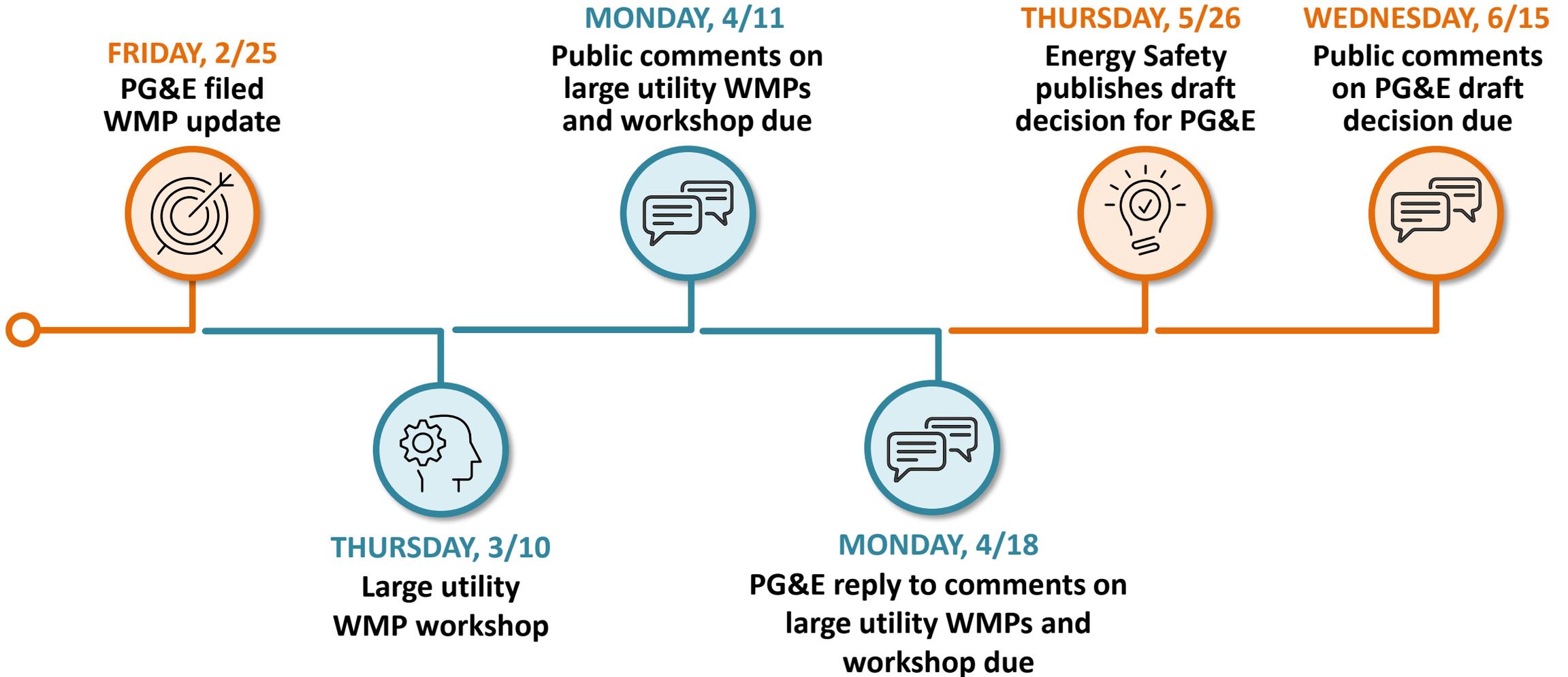
- ✔ Supports our ability to **mitigate wildfire risk**
- ✔ Aligns with strategic goals of **engaging with our stakeholders**
- ✔ Provides a **single source** for wildfire activities
- ✔ Fulfills **regulatory requirements**

Read the plan at

pge.com/wildfiremitigationplan



Important 2022 Wildfire Mitigation Plan Dates



Community Wildfire Safety Program Update



Key Wildfire Safety Objectives in 2022

Reduce Wildfire Risk



- **Prevent catastrophic wildfires** by rebuilding and modernizing the system
- **Lessen the frequency** of ignitions
- **Limit the spread** of potential ignitions
- **Focus efforts** on the highest risk locations

Reduce Customer Impact



- **Improve coordination** with, and support of, customers and hometowns
- **Reduce the number** of customers impacted by safety outages
- **Reduce the duration** of safety outages

Improve Situational Awareness

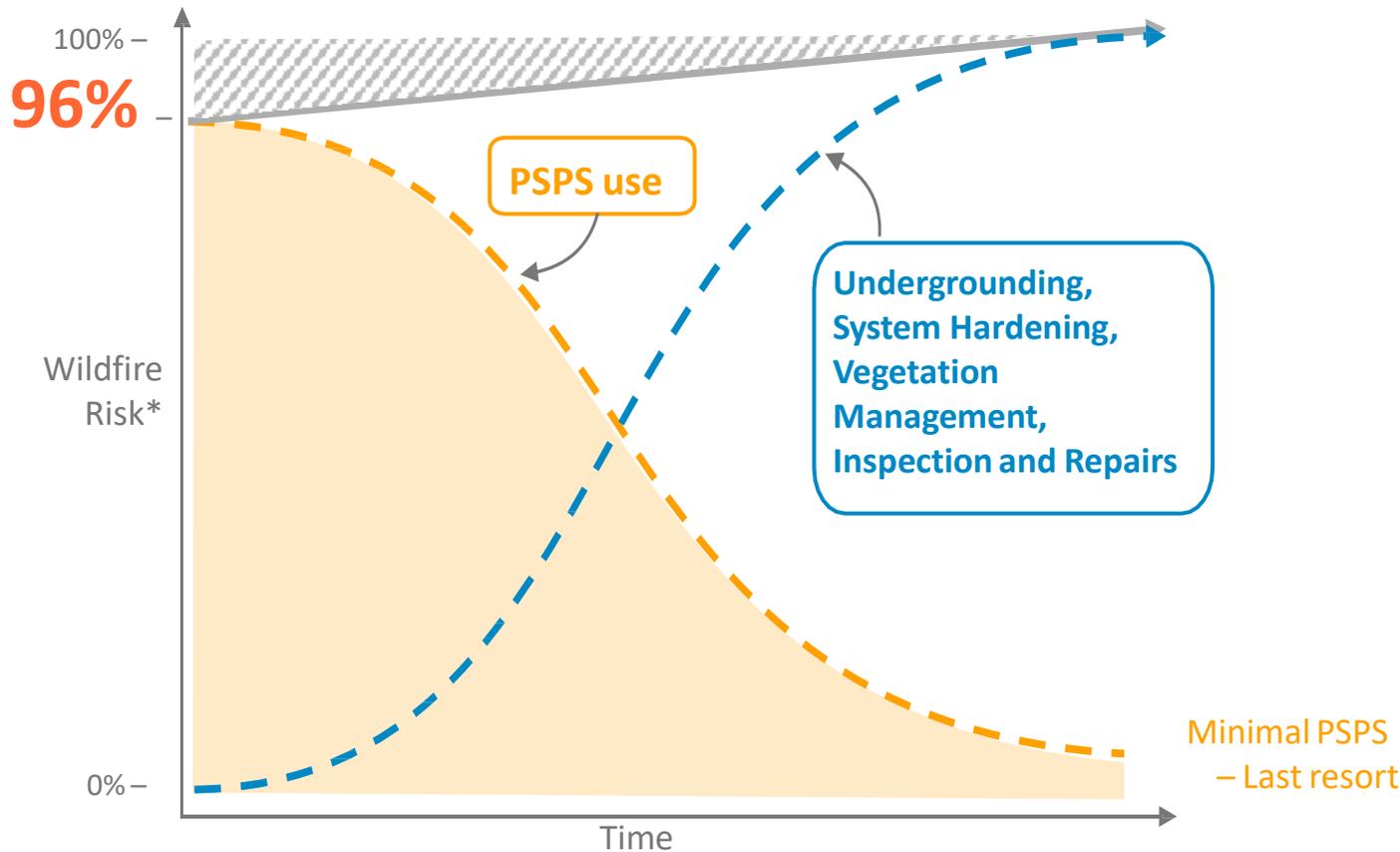


- **Enhance understanding** of where risk is located
- **Further refine weather modeling** and ability to detect wildfires
- **Improve our ability to capture and analyze data** from all hazards



Improving Public Safety Power Shutoffs

As we work to build the electric system of the future, with efforts like undergrounding and system hardening, Public Safety Power Shutoffs (PSPS) as a measure of last resort will continue to decline.



*Based on applying current PSPS protocols to catastrophic wildfires between 2012 and 2020, resulting in mitigating 96% of the structures impacted.

PSPS impacts have declined significantly through new, advanced technologies and improvements to the electric system infrastructure.

	2019	2020	2021
PSPS EVENTS	7	6	5
CUSTOMERS IMPACTED	2,014,000	653,000	80,400
DAMAGE/HAZARDS	722	257	442
AVERAGE OUTAGE DURATION (HRS)	43	35	31
AVERAGE RESTORATION TIME (HRS)	17	10	12

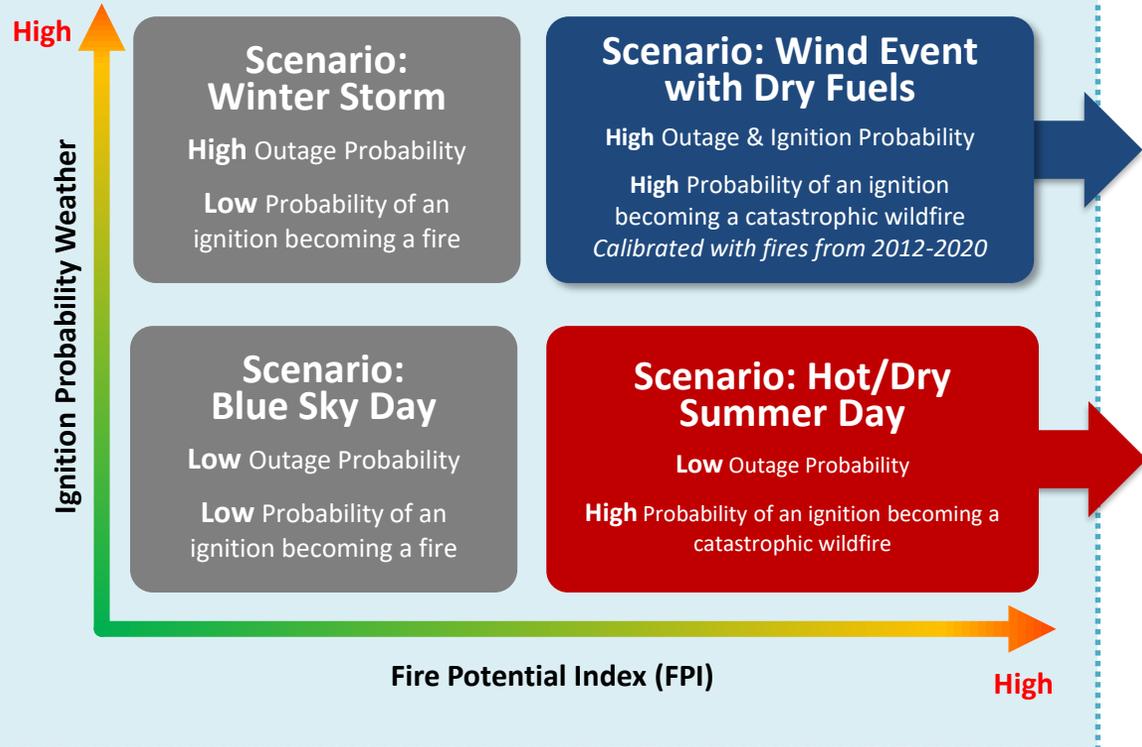
Data is approximate

Weather-Driven Wildfire Prevention Efforts



Year-Round Wildfire Mitigation

- Undergrounding
- System Hardening
- Enhanced Inspection and Repair



Weather-Driven Response

Public Safety Power Shutoff (PSPS)

Turning off power during severe weather to prevent tree branches and debris from contacting energized lines.

PSPS IN 2021

17% fewer outages*

88% fewer customers impacted*

2022 FOCUS

Continuing to refine program and reducing impacts in the areas at highest risk

Enhanced Powerline Safety Settings (EPSS)

Using equipment on powerlines that allows them to turn off power within one tenth of a second if a tree branch or object strikes the line.

EPSS IN 2021

In place on ~45% of HFTD circuit miles

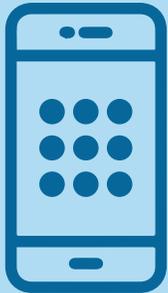
2022 FOCUS

Expanding to 100% of HFTD circuit miles

*Compared to 2020



Insert your questions or feedback into the chat function.



Ask your question or provide your feedback verbally by unmuting your line.



What else would you like to know about PG&E's recent Wildfire Mitigation Plan filing?

Local Resilience Efforts

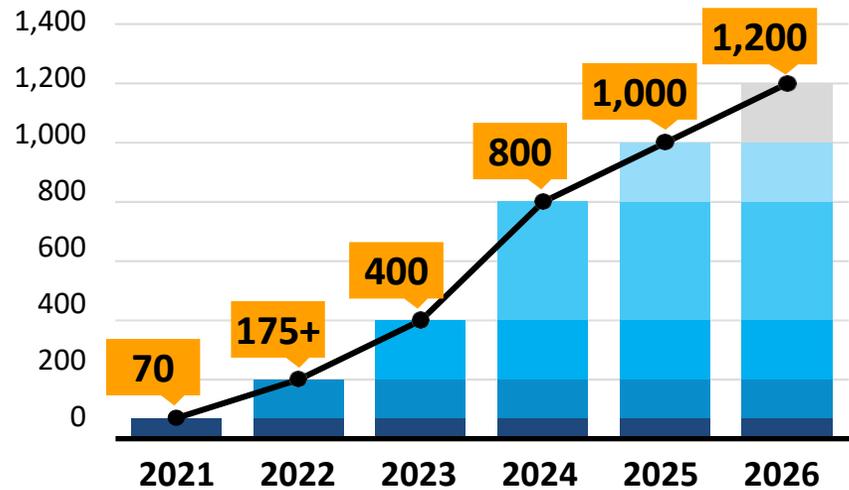
Undergrounding



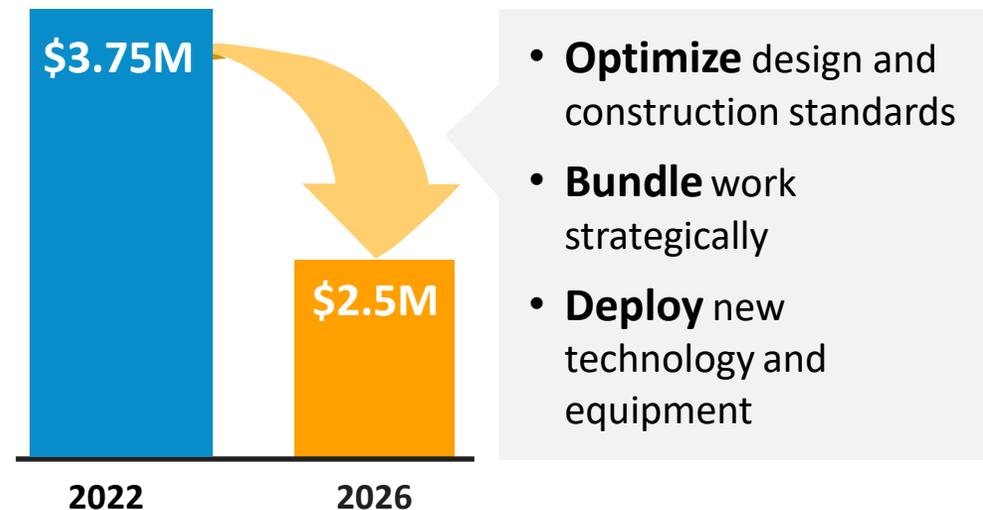
Undergrounding 10,000 Miles

PG&E is undertaking a major new initiative to underground approximately **10,000 miles of powerlines** in high fire risk areas.

Target Miles Per Year



Target Cost Per Mile



This commitment represents the largest effort in the U.S. to underground power lines as a wildfire risk mitigation measure.

Safe



Mitigates
Risk

Dependable



Reduces PSPS and EPSS
Improves Reliability

Sustainable



Saves Trees and Beautifies
our Hometowns

Underground Mile Identification Criteria

PG&E is identifying areas for our Undergrounding Program with a focus on Wildfire and PSPS risk reduction.
The below criteria is being used to identify miles for future projects:

Wildfire and PSPS Mitigation

- Probability & consequences of ignition
- PSPS impacts/reduction
- Public safety risk deduction
- Tree density
- Climate change

Integrated Planning

- Reliability risk reduction
- Impacts to other programs including vegetation management, EPSS, etc.
- Alternative solutions and routes
- Ingress/egress for evacuation & emergency responders

Constructability and Feasibility

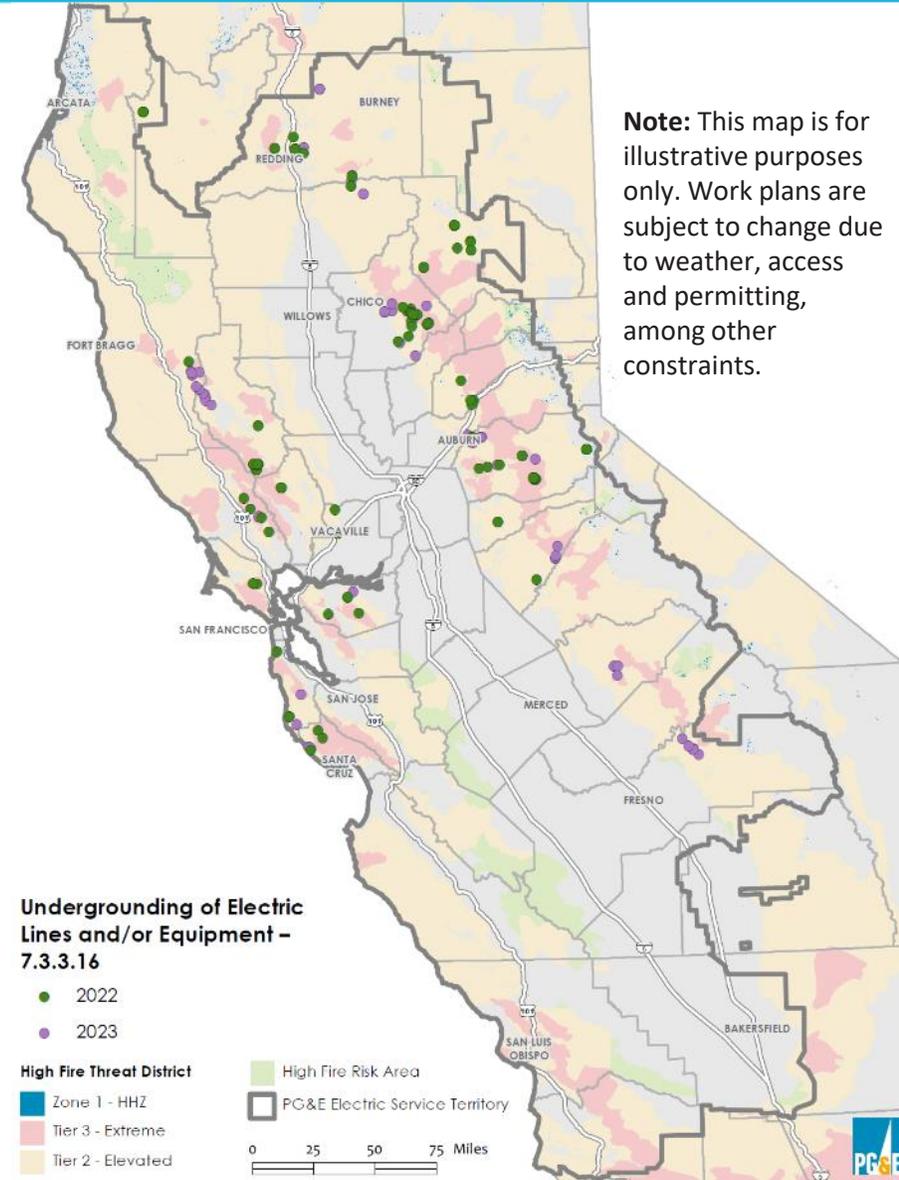
- Longer runs & bundling work in connected areas
- Land rights & easements
- At grade/non-trench areas
- Cost of project

South Bay/Central Coast Region 2022-2023 Undergrounding Work

Planned Undergrounding Miles Work in South Bay/Central Coast Region

COUNTY	2022-2023
Santa Cruz	3

Data is as of 02/1/22 and does not include undergrounding work related to the California Public Utilities Commission's Rule 20 Program. Local plans are subject to change.



Note: This map is for illustrative purposes only. Work plans are subject to change due to weather, access and permitting, among other constraints.

What Undergrounding May Look Like In Your Community

BEFORE

Powerlines above ground



AFTER

Primary lines underground





Undergrounding in Santa Cruz County

Strengthening the electric system by undergrounding our powerlines in and near high fire-threat areas.



**UNDERGROUNDING
PLANNED 2022-2023**

3 miles

Undergrounding

- 2022 Planned/Completed Miles
- 2023 Planned Miles

High Fire-Threat District

- Tier 3 - Extreme
- Tier 2 - Elevated

Learn more about our undergrounding efforts at

pge.com/systemhardening



Note: This map is for illustrative purposes only. Work plans are subject to change due to weather, access and permitting.

Data is as of 02/1/22 and does not include undergrounding work related to the California Public Utilities Commission's Rule 20 Program.

Local Resilience Efforts

Enhanced Powerline Safety Settings



Enhanced Powerline Safety Settings (EPSS): A tool to help prevent wildfires

HOW IT WORKS

PG&E powerlines have equipment that allows them to turn off power within one-tenth of a second if a tree branch or other object strikes the line.



We are expanding these settings across 25,500 distribution line miles in areas of greatest wildfire risk.



SAFETY SETTINGS IN ACTION

In 2021, these settings prevented a potential ignition when a tree branch fell into a powerline and power quickly and automatically turned off.

WHY WE DO IT



Quickly and automatically shutting off power when there is a problem can help stop wildfires before they have a chance to start.

PREVENTING WILDFIRES

~80% 

decrease in CPUC-reportable ignitions in 2021 on EPSS-enabled circuits.*

*Compared to the prior three-year average.

What Are Enhanced Powerline Safety Settings?

1 When an **object strikes the line** or a fault occurs...

To help prevent wildfires during the hot and dry season, we adjust the sensitivity settings on our equipment to quickly and automatically turn off power if the system detects a problem.

2 ...protective devices detect the change in current and **shut off power within one-tenth of a second.**

3 We check the lines for damage before safely restoring power. This process can take several hours, depending on terrain.

Patrols are done by helicopter, truck or on foot during daylight hours.

POWER OFF

PG&E

For illustrative purposes only. Graphic is not to scale.

Refining Our EPSS Program to Reduce Impacts on Customers



Improvements In Place

- **Fine-tuning sensitivity** on our equipment to reduce the likelihood of an outage
- **Increasing communication** between our devices and patrol crews to reduce the size of outages
- **Amended patrol guidance** for EPSS-enabled circuits



Improvements Underway

- **Minimizing impacts** to customer reliability
- Installation of additional **animal protection on our equipment**
- **Targeted vegetation clearing** to prevent branch and tree fall-ins



Supporting Customers

- Expanding **generator and battery rebate** support
- Enhancing **customer and stakeholder engagement**
- **More accurate restoration times** during outages

Local Resilience Efforts

Microgrids, Remote Grids and Backup Generation





Substation Microgrid Program Update

PG&E has made significant improvements to our weather modeling and technology capabilities, grid operations and overall system resiliency.

As a result of these improvements, substations prepared for temporary generation in 2020 and 2021 are **now significantly less likely** to experience a PSPS-related outage than they were during previous years.

In 2021, **none of the substations prepared for temporary generation were utilized** to support customers during a PSPS or capacity related outage event.

Because of these improvements, PG&E is not planning to reserve any temporary generators for the purpose of energizing substations for PSPS outages in 2022.

Substation Microgrid Site	2021 PSPS Usage
BRUNSWICK (Nevada County)	Not utilized during 2021
CLEAR LAKE (Lake County)	Not utilized during 2021
CLOVERDALE (Sonoma County)	Not utilized during 2021
HARTLEY (Lake County)	Not utilized during 2021
HOOPA (Humboldt County)	Not utilized during 2021
KONOCTI (Lake County)	Not utilized during 2021
LOW GAP (Trinity County)	Not utilized during 2021
POINT MORETTI (Santa Cruz County)	Not utilized during 2021
WILLOW CREEK (Humboldt County)	Not utilized during 2021
BIG BASIN* (Santa Cruz County)	Not utilized during 2021
DOBBINS* (Yuba County)	Not utilized during 2021
WEIMAR* (Placer County)	Not utilized during 2021

*Energization plan only.



Systemwide Grid Resilience Efforts

In 2022, we are continuing to build upon our distribution microgrid and remote grid programs and plan to continue to utilize our previously identified islanding locations when possible.

Program	Description	2020 Total Sites	2021 Total Sites	2022 Total Sites Planned
Distribution Microgrids	Microgrids prepared to energize “main street” corridors, central community resources and critical facilities in areas that frequently experience PSPS events.	3*	8**	13
Remote Grids	Remote Grids use a combination of solar power, battery storage and propane generation to provide energy to customers independent from the larger electric grid.	0	1	3***
Islanding Locations	Reconfiguration of local generation sources to allow certain areas to be separated from the larger electric grid and remain energized during PSPS events.	0	6	6

Local work plans are subject to change and data is based on the best available information at this time.

*Does not include 4 additional sites that were made ready to operate using a temporary configuration in 2020

**Does not include 1 additional site that was made ready to operate using a temporary configuration in 2021

***Additional sites may also be completed in 2022

Local Resilience Efforts

EPSS/PSPS Customer Support





Self-Generation Incentive Program

Providing customers rebates for battery storage and renewable generation.

pge.com/batteryincentive



Portable Battery Program

Supporting eligible customers with fully subsidized portable battery solutions.

pge.com/pspsresources



Generator and Battery Rebate* Program

Rebates for eligible customers to purchase a qualifying generator or battery.

pge.com/backupper



Partnership with 211

24/7 free and confidential support and access to local resources during periods of critical need via calls or texts to 211.

211.org



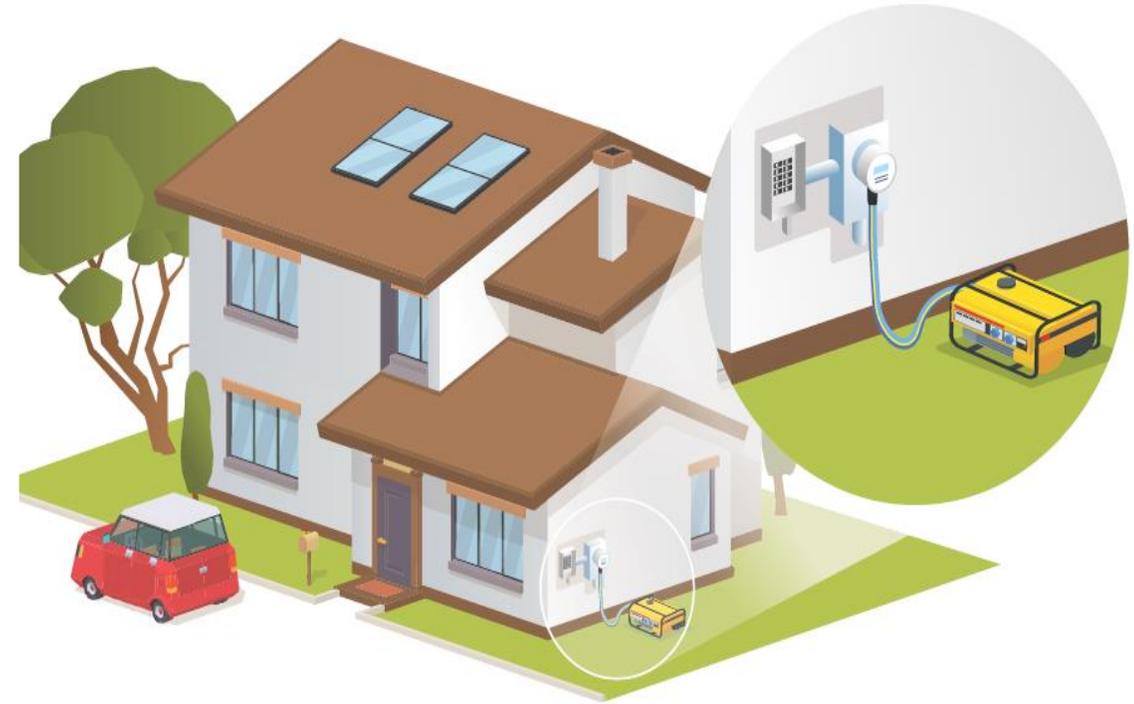
**Please note the portable battery program is not eligible for customers experiencing EPSS.*

Backup Power Transfer Meter Support

PG&E has developed a new meter program to help our customers safely power their homes during emergency outages.

- 
 The program provides a **safe way for customers to connect generator power** to their homes.
- 
 The **power is delivered directly to the circuit breaker** when you connect the generator to the meter and will also eliminate any power cords running through your home.
- 
 Be sure to **start the generator at a safe location** and program to your home specifics.
- 
 This program also provides **an affordable solution** for customers who are unable to afford solar or backup battery systems.

pge.com/transfERMeter



When utility power returns customers should:

- 01** Turn off your generator
- 02** Adjust your breaker panel to set all circuit to the "on" position
- 03** Unplug the cord from the generator to disconnect from the meter



More Information and Tools For Customers to Prepare

BEFORE PSPS AND EPSS OUTAGES

- **See if you qualify for backup power support** at pge.com/backuppower.

Generator rebates for customers who rely on well water	Portable batteries for Medical Baseline customers in high fire risk areas
---	--
- **Apply for the Medical Baseline Program** to receive energy savings and extra outreach before a PSPS at pge.com/medicalbaseline.
- **Self-identify for Vulnerable Customer Status** if you or someone in your home's life or health would be at risk should electric or gas service be disconnected at pge.com/vulnerable.

DURING PSPS OUTAGES

- **Find Community Resource Centers** to charge personal and medical devices and get basic supplies during a PSPS at pge.com/crc.
- **Replace lost food** at your local food bank during and up to three days after an outage, visit pge.com/pspsresources.
- **Prepare an emergency plan** including portable backup power, hotel accommodations and accessible transportation at disabilitydisasteraccess.org.

Visit PG&E's YouTube Channel

To view more safety information, tips to be prepared and other resources

www.youtube.com/user/pgevideo



To view webinar slides and recordings, visit

www.pge.com/firesafetywebinars



For more
information

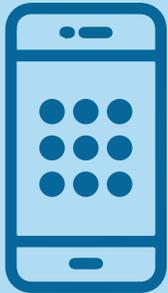
Visit pge.com/wildfiresafety
Call us at **1-866-743-6589***
Email us at wildfiresafety@pge.com



**Translated support available*



Insert your questions or feedback into the chat function.



Ask your question or provide your feedback verbally by unmuting your line.

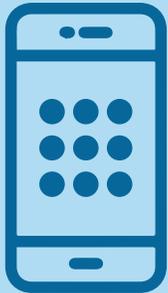
- 
- Where does PG&E plan to underground 10,000 miles of powerlines?**
 - How has the EPSS program changed since 2021?**
 - How can my community better utilize the customer resources that PG&E offers?**

Resilience Planning Flyover





Insert your questions or feedback into the chat function.



Ask your question or provide your feedback verbally by unmuting your line.



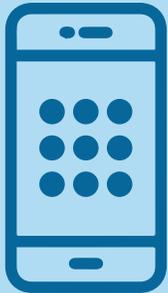
Can you show me how undergrounding a section of powerlines can help to minimize Public Safety Power Shutoff impacts?



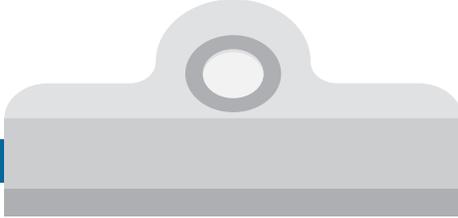
What do EPSS changes look like in my community?



Insert your questions or feedback into the chat function.



Ask your question or provide your feedback verbally by unmuting your line.

- 
- Which resilience topics would you like us to cover in future Regional Working Group meetings?**
 - What resilience efforts are most important to your community?**
 - What changes (if any) would you make to the Regional Working Group meeting structure?**

- 
Meeting survey shared with participants to gather feedback on approach and content of regional working group

- 
Follow-up on items identified by local agencies/stakeholders

- 
Upcoming meetings
 - Q2 2022 Regional Working Group Meetings
 - Ongoing Local Government Engagement

2022 REGIONAL WORKING GROUP CALENDAR

TIMING	TOPICS
Q2 2022	Public Safety Power Shutoff and Wildfire Safety Updates

Beginning next quarter

we plan to send invites from

PSPSRegionalWorkingGroups@pge.com



Thank You



Appendix

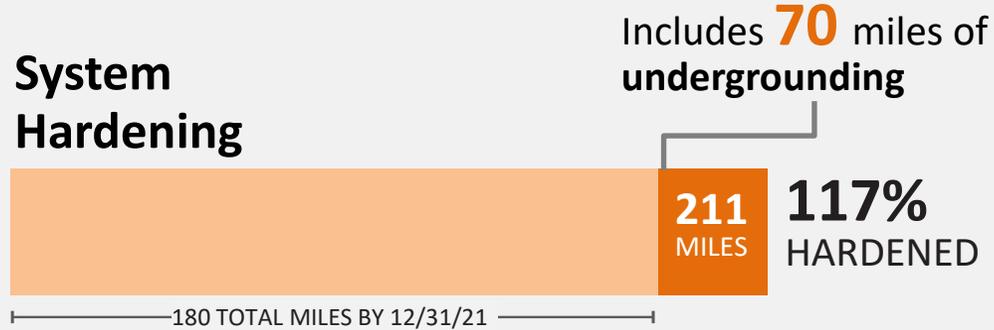




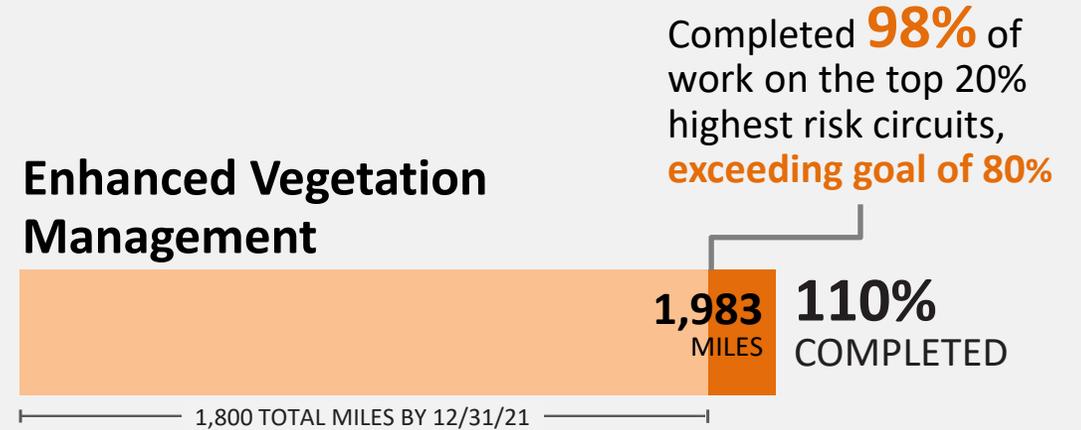
Performance Against Our 2021 WMP Goals

Key 2021 WMP Programs

System Hardening

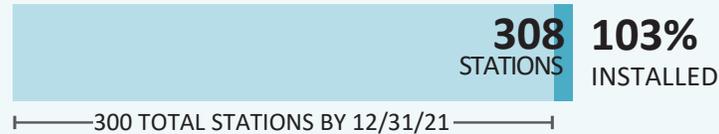


Enhanced Vegetation Management

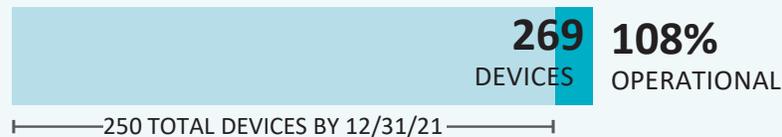


Additional Programs to Mitigate Wildfire Risk and Improve Situational Awareness

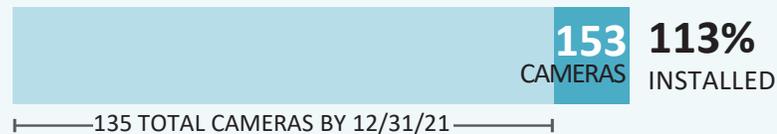
Weather Stations



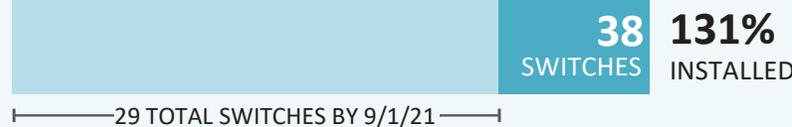
Sectionalizing Devices



High-Definition Cameras



Transmission Line Switches



NEW

2021 Programs Beyond WMP

Launched program to undergrounding powerlines
~10K miles as part of a multiyear effort

Implemented Enhanced Powerline Safety Settings (EPSS) on
~45% of HFTD circuit miles in 2021



Outstanding Follow Up and Action Items

Below is a list of the follow up and action items identified during the previous Regional Working Group meetings as well as corresponding statuses.

Action Item	Agency	Status
Asked for a county level breakdown of battery distribution.	County of Santa Barbara	In Progress
Follow up regarding if PG&E has targets for resiliency metrics for 2021 and beyond (number and duration).	City of San Jose/San Jose Clean Energy	In Progress



Status of Planned/Upcoming Resilience Efforts – Systemwide

Program	County	Site Name/Area	Status	Estimated Completion
Distribution Microgrids	Butte	Magalia	Construction Complete	Q3 2022*
	Calaveras	Arnold	Planning	Q4 2022
	El Dorado	Georgetown	Construction Complete	Q3 2022*
	El Dorado	Pollock Pines	Construction Complete	Q3 2022*
	Lake	Clearlake North	Planning	Q4 2022
	Lake	Lucerne	Planning	Q4 2022
	Lake	Middletown	Construction Complete	Q3 2022*
	Napa	Angwin	Construction Complete	Q3 2022*
	Napa	Calistoga	Construction Complete	Q3 2022*
	Placer	Colfax	Construction Complete	Q4 2022*
	Placer	Foresthill	Construction Complete	Q3 2022*
	Shasta	Shingletown	Construction Complete	Q3 2022*
	Tuolumne	Groveland	Planning	Q4 2022
Islanding	Calaveras**	Salt Springs Island	Ready to Operate	N/A
	Calaveras***	West Point Island	Ready to Operate	N/A
	Humboldt	Humboldt Bay Island	Ready to Operate	N/A
	Plumas	Caribou Island	Ready to Operate	N/A
	Tehama	Red Bluff Island	Ready to Operate	N/A
	Tuolumne	Spring Gap	Ready to Operate	N/A

Local work plans are subject to change and data is based on the best available information at this time.

*Temporary generation procurement and energization plan finalization targeted completion of 9/1.

**Also serves portions of Amador and Alpine Counties.

***Also serves portions of Amador County.



Status of Planned/Upcoming Resilience Efforts – Systemwide

Program	County	Site Name/Area	Status	Estimated Completion
Remote Grids	Mariposa	Briceburg	Operational	N/A
	Mariposa	Miami Mountain	Planning	Q4 2022
	Tehama	Corning 1	Planning	Q4 2022
	Tehama	Corning 2	Planning	Q4 2022
	Mariposa	Mariposa	Planning	Q4 2022
	Sonoma	Pepperwood Preserve	Planning	Q4 2022
	Tehama	Manton 1	Planning	Q2 2023
	Tehama	Manton 2	Planning	Q2 2023
	Tehama	Manton 3	Planning	Q2 2023
	Madera	Coarsegold	Planning	Q2 2023
	Yuba	Bangor	Planning	Q2 2023
	Lake	Clearlake	Planning	Q2 2023
	Lake	Middletown	Planning	Q2 2023
	Tulare	Whitaker Forest	Planning	Q2 2023
	Tuolumne	Vallecito	Planning	Q2 2023
	Glenn	Alder Springs	Planning	Q3 2023
	San Luis Obispo	Carrizo Plains	Planning	Q3 2023
Marin	Inverness	Planning	Q3 2023	

Local work plans are subject to change and data is based on the best available information at this time.



Systemwide PSPS Customer Support

Customer Support Resources



77 partnerships with community-based organizations



13,079 batteries provided



1,044 hotel stays provided

Food Replacement Resources



26 participating Meals on Wheels in **22** counties



22 supporting food banks in **37** counties

South Bay/Central Coast Community-Based Organizations

CFILC

- Central Coast Center for Independent Living
- Independent Living Resource Center
- Silicon Valley Independent Living Center

Food Banks

- Second Harvest Food Bank of Silicon Valley
- Second Harvest Food Bank of Santa Cruz County

Meals on Wheels

- Community Bridges
- Meals on Wheels Monterey Peninsula

In-Language Media

- Centro Binacional para el Desarrollo Indigena Oaxaqueno
- Mixteco Indigena Community Organizing Project
- KRON4.2-Skylink TV
- KTVO-Sing Tao Radio
- KDTV Univision
- Radio Lazer Sacramento
- Radio Lazer SJ
- Radio Bilingüe
- KBBF Radio
- Alianza News
- KTSF-TV
- KSJZ-Korean-American Radio
- Saigon Radio
- KSFN-News for Chinese Radio
- KZSF Radio
- KIQI Radio
- PAMA One Radio
- Fusion Latina Network

Community Wildfire Safety Program

Q1 2022 REGIONAL WORKING GROUP

Bay Area Region

March 25, 2022



Virtual Sign-In Reminder

Please “sign-in” using the chat function and provide your **name, organization and email**.



Safety

General Safety Tips



Identify two exit routes from your current work area in the event of a fire or other emergency.



“Drop, cover and hold” in the event of an earthquake.



Notify emergency services if you are in danger. You can also ask for help by putting a message in the chat function of this meeting.



Virtual Sign-In Reminder

Please “sign-in” using the chat function and provide your **name, organization and email**.

WORKING GROUP PARTICIPANTS:

- Access and Functional Needs Representatives
- City/County Staff
- Community-Based Organizations
- Community Choice Aggregators
- County Offices of Emergency Services
- Electric Co-Ops
- First Responders
- Health and Human Services Representatives
- Publicly Owned Electric Utilities
- Red Cross Staff
- Small, Multi-Jurisdictional Electric Utilities
- Telecommunications Providers
- Tribal Governments
- Water Agencies
- Filsinger Energy Partners
- California Public Utilities Commission Staff

DISCUSSION TOPICS:

- 1 2022 Wildfire Mitigation Plan Update**
- 2 Community Wildfire Safety Program Update**
- 3 Local Resilience Efforts**
- 4 Resilience Planning Flyover**
- 5 Open Discussion/Q&A**

MEETING PRESENTERS

- Aaron Johnson** | Regional Vice President
- Francisco Salguero** | Division Lead
- Lauren Wilson** | Local Government Affairs
- Frank Fraone** | Public Safety Specialist
- Reno Franklin** | Tribal Liaison

2022 Wildfire Mitigation Plan Update



PG&E's Wildfire Mitigation Plan (WMP) was submitted on February 25 and outlines our actions to mitigate wildfire risk, this filing was an update of the 2020-2022 three-year plan submitted last year.

WMP Purpose

In compliance with California SB 901, AB 1054 and direction from the California's Office of Energy and Infrastructure Safety (OEIS), our WMP:

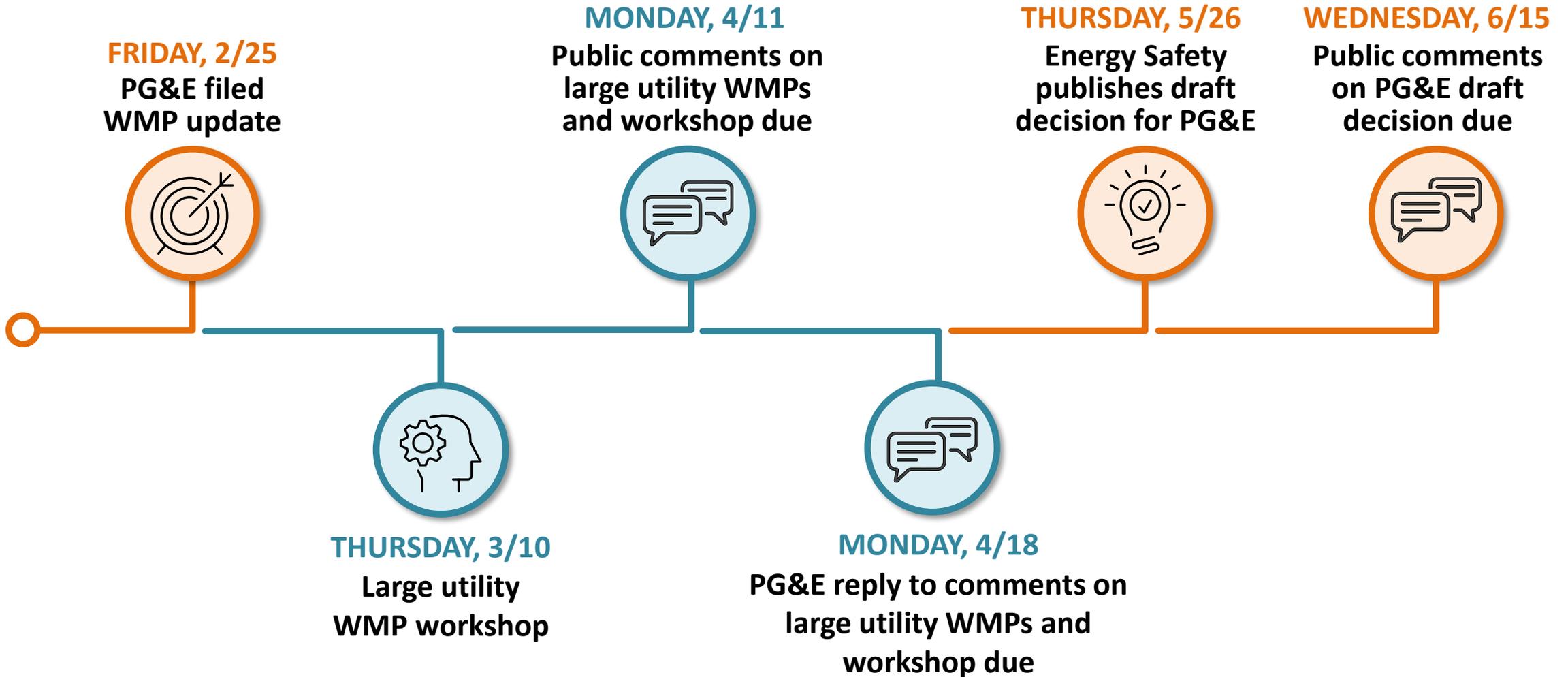
- ✔ Supports our ability to **mitigate wildfire risk**
- ✔ Aligns with strategic goals of **engaging with our stakeholders**
- ✔ Provides a **single source** for wildfire activities
- ✔ Fulfills **regulatory requirements**

Read the plan at

pge.com/wildfiremitigationplan

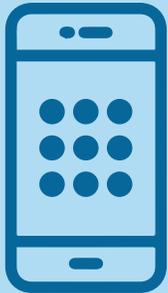


Important 2022 Wildfire Mitigation Plan Dates





Insert your questions or feedback into the chat function.



Ask your question or provide your feedback verbally by unmuting your line.



What else would you like to know about PG&E's recent Wildfire Mitigation Plan filing?

Community Wildfire Safety Program Update



Key Wildfire Safety Objectives in 2022

Reduce Wildfire Potential



- **Prevent catastrophic wildfires** by rebuilding and modernizing the system
- **Lessen the frequency** of ignitions
- **Limit the spread** of potential ignitions
- **Focus efforts** on the highest risk locations

Reduce Customer Impact



- **Improve coordination** with, and support of, customers and hometowns
- **Reduce the number** of customers impacted by safety outages
- **Reduce the duration** of safety outages

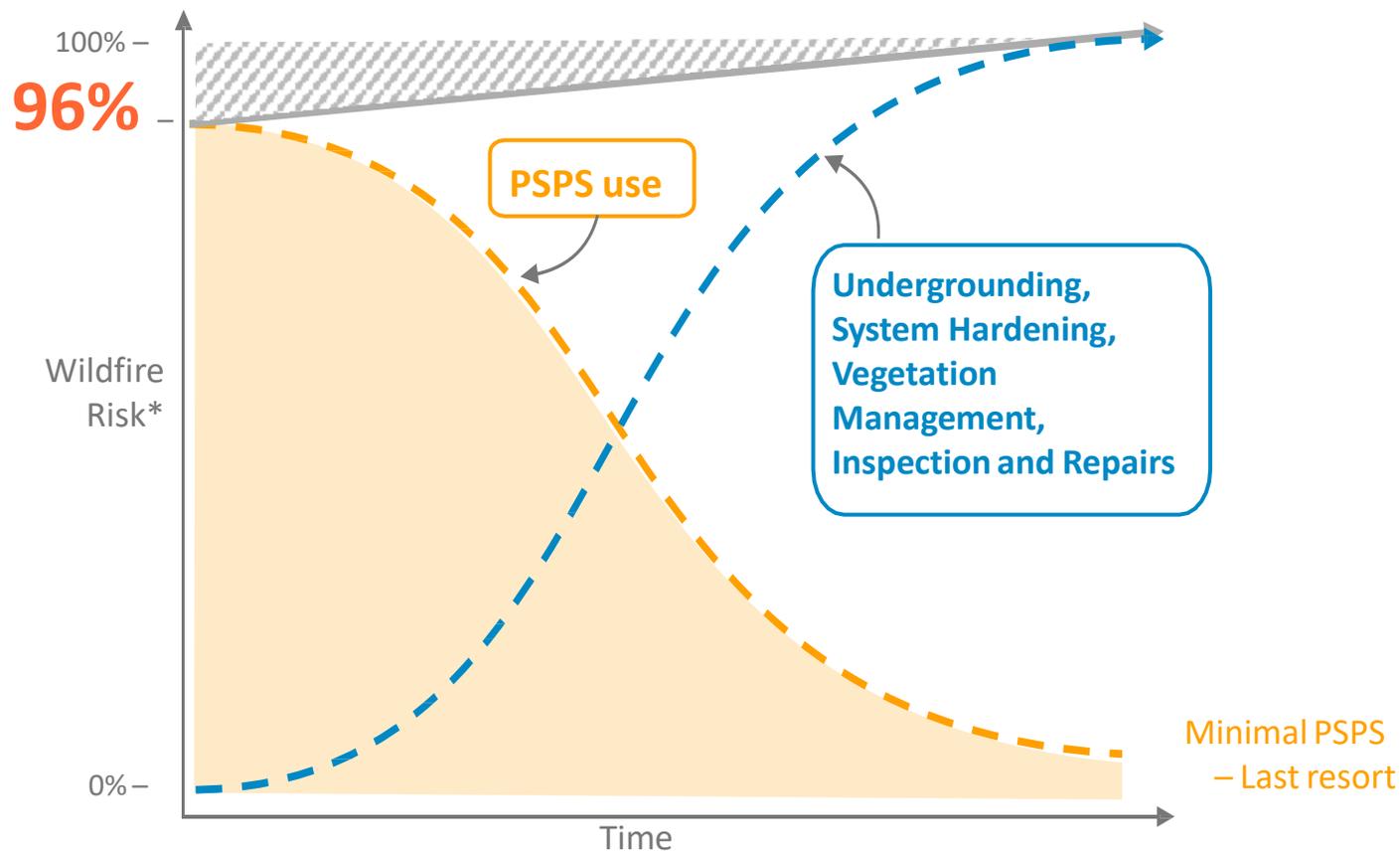
Improve Situational Awareness



- **Enhance understanding** of where risk is located
- **Further refine weather modeling** and ability to detect wildfires
- **Improve our ability to capture and analyze data** from all hazards

Improving Public Safety Power Shutoffs

As we work to build the electric system of the future, with efforts like undergrounding and system hardening, Public Safety Power Shutoffs (PSPS) as a measure of last resort will continue to decline.



*Based on applying current PSPS protocols to catastrophic wildfires between 2012 and 2020, resulting in mitigating 96% of the structures impacted.

PSPS impacts have declined significantly through new, advanced technologies and improvements to the electric system infrastructure.

	2019	2020	2021
PSPS EVENTS	7	6	5
CUSTOMERS IMPACTED	2,014,000	653,000	80,400
DAMAGE/HAZARDS	722	257	442
AVERAGE OUTAGE DURATION (HRS)	43	35	31
AVERAGE RESTORATION TIME (HRS)	17	10	12

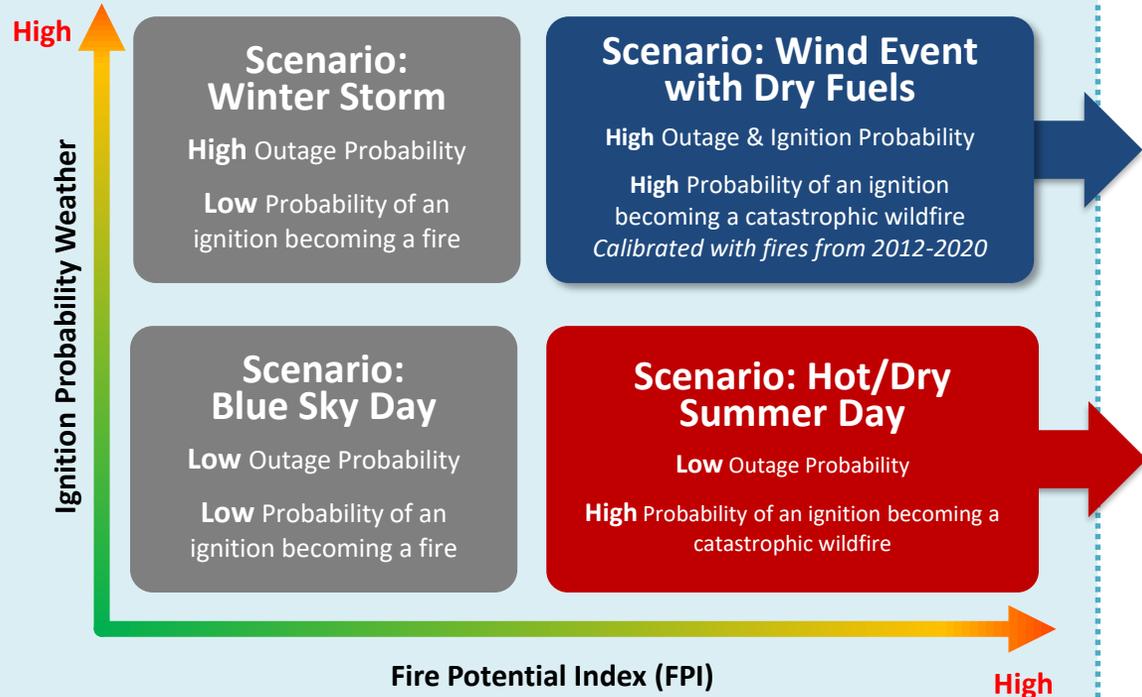
Data is approximate

Weather-Driven Wildfire Prevention Efforts



Year-Round Wildfire Mitigation

- Undergrounding
- System Hardening
- Enhanced Inspection and Repair



Weather-Driven Response

Public Safety Power Shutoff (PSPS)

Turning off power during severe weather to prevent tree branches and debris from contacting energized lines.

PSPS IN 2021

17% fewer outages*

88% fewer customers impacted*

2022 FOCUS

Continuing to refine program and reducing impacts in the areas at highest risk

Enhanced Powerline Safety Settings (EPSS)

Using equipment on powerlines that allows them to turn off power within one tenth of a second if a tree branch or object strikes the line.

EPSS IN 2021

In place on ~45% of HFTD circuit miles

2022 FOCUS

Expanding to 100% of HFTD circuit miles

*Compared to 2020

Local Resilience Efforts

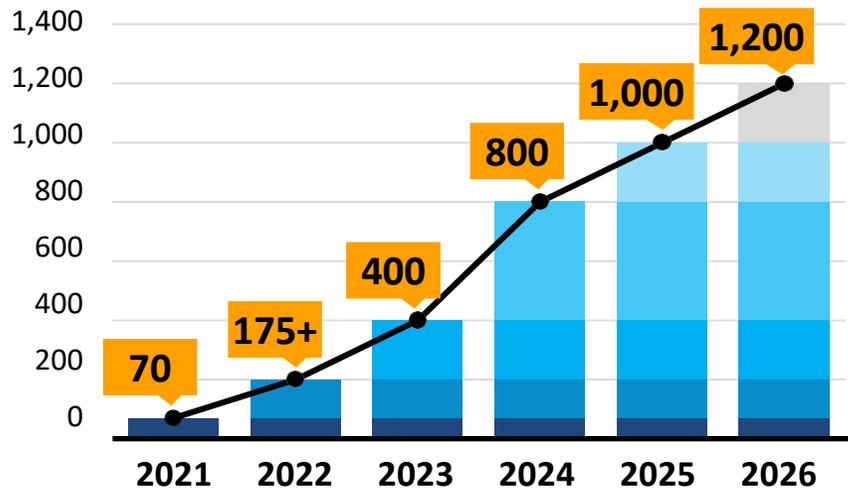
Undergrounding



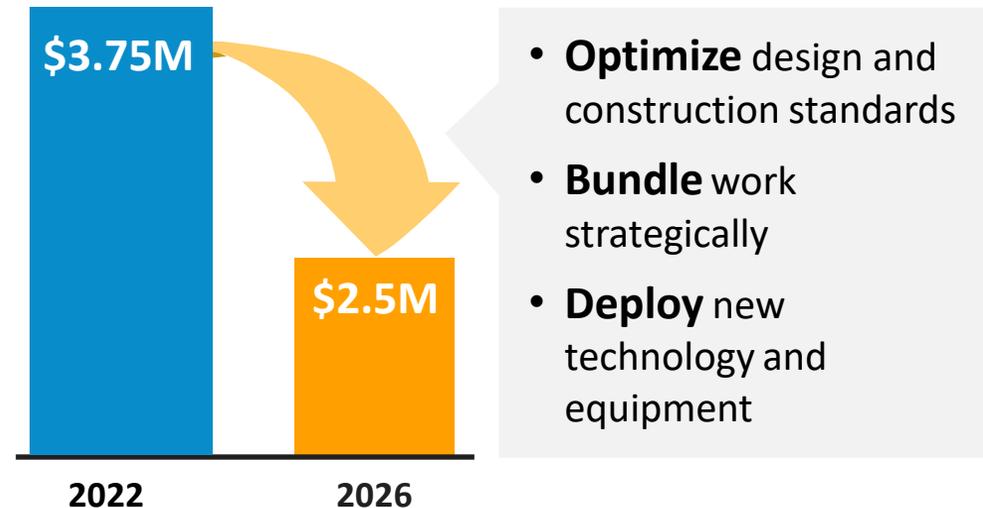
Undergrounding 10,000-Miles

PG&E is undertaking a major new program to underground approximately **10,000 miles of powerlines** in high fire risk areas.

Target Miles Per Year



Target Cost Per Mile



This commitment represents the largest effort in the U.S. to underground power lines as a wildfire risk mitigation measure.

Safe



Mitigates
Risk

Dependable



Reduces PSPS and EPSS
Improves Reliability

Sustainable



Saves Trees and Beautifies
our Hometowns

Underground Mile Identification Criteria

PG&E is identifying areas for our Undergrounding Program with a focus on Wildfire and PSPS risk reduction.
The below criteria is being used to identify miles for future projects:

Wildfire and PSPS Mitigation

- Probability & consequences of ignition
- PSPS impacts/reduction
- Public safety risk deduction
- Tree density
- Climate change

Integrated Planning

- Reliability risk reduction
- Impacts to other programs including vegetation management, EPSS, etc.
- Alternative solutions and routes
- Ingress/egress for evacuation & emergency responders

Constructability and Feasibility

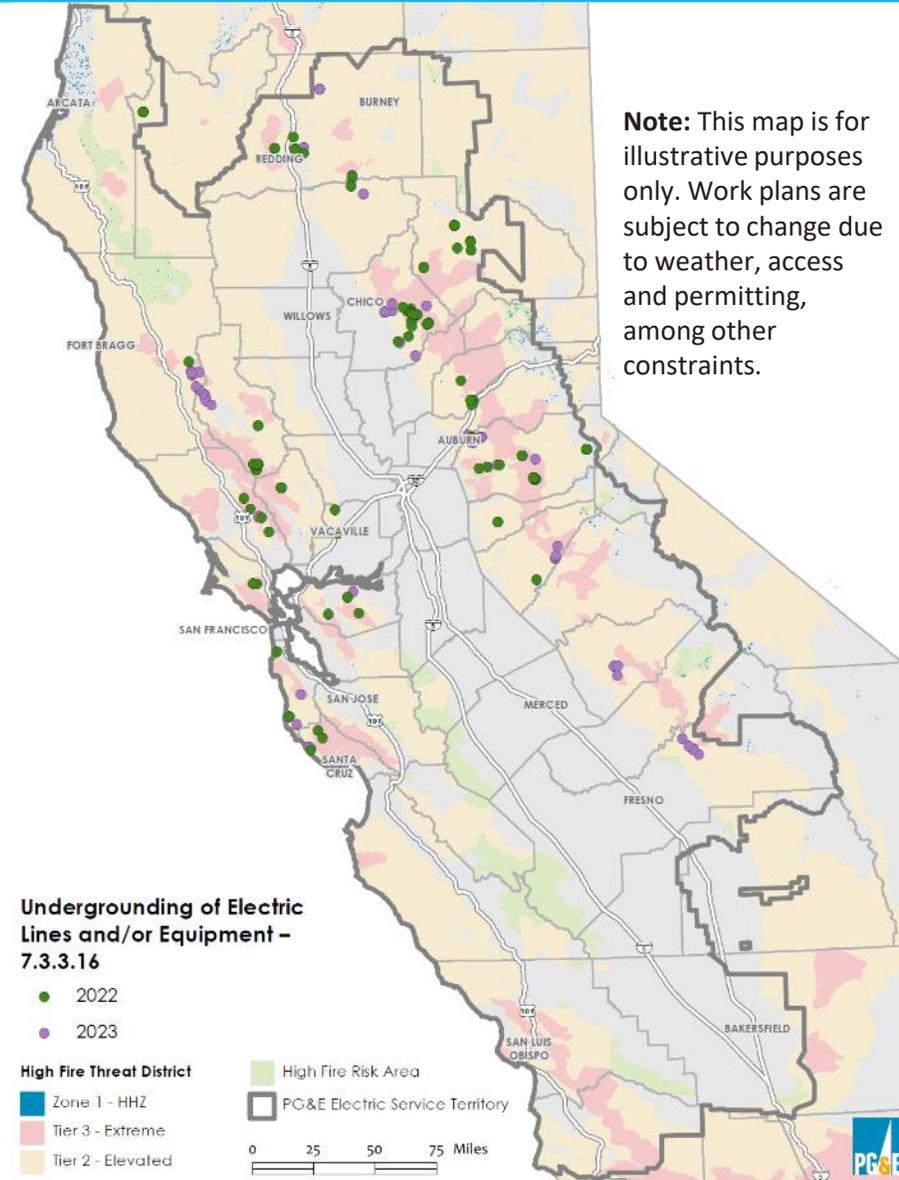
- Longer runs & bundling work in connected areas
- Land rights & easements
- At grade/non-trench areas
- Cost of project

Bay Area Region 2022-2023 Undergrounding Work

Planned Undergrounding Miles Work in Bay Area Region

COUNTY	2022-2023
Contra Costa	8
San Mateo	10

Data is as of 02/1/22 and does not include undergrounding work related to the California Public Utilities Commission's Rule 20 Program. Local plans are subject to change.



What Undergrounding May Look Like In Your Community

BEFORE

Powerlines above ground



AFTER

Primary lines underground





Undergrounding in Contra Costa County

Strengthening the electric system by undergrounding our powerlines in and near high fire-threat areas.



**UNDERGROUNDING
PLANNED 2022-2023**

8 miles

Undergrounding

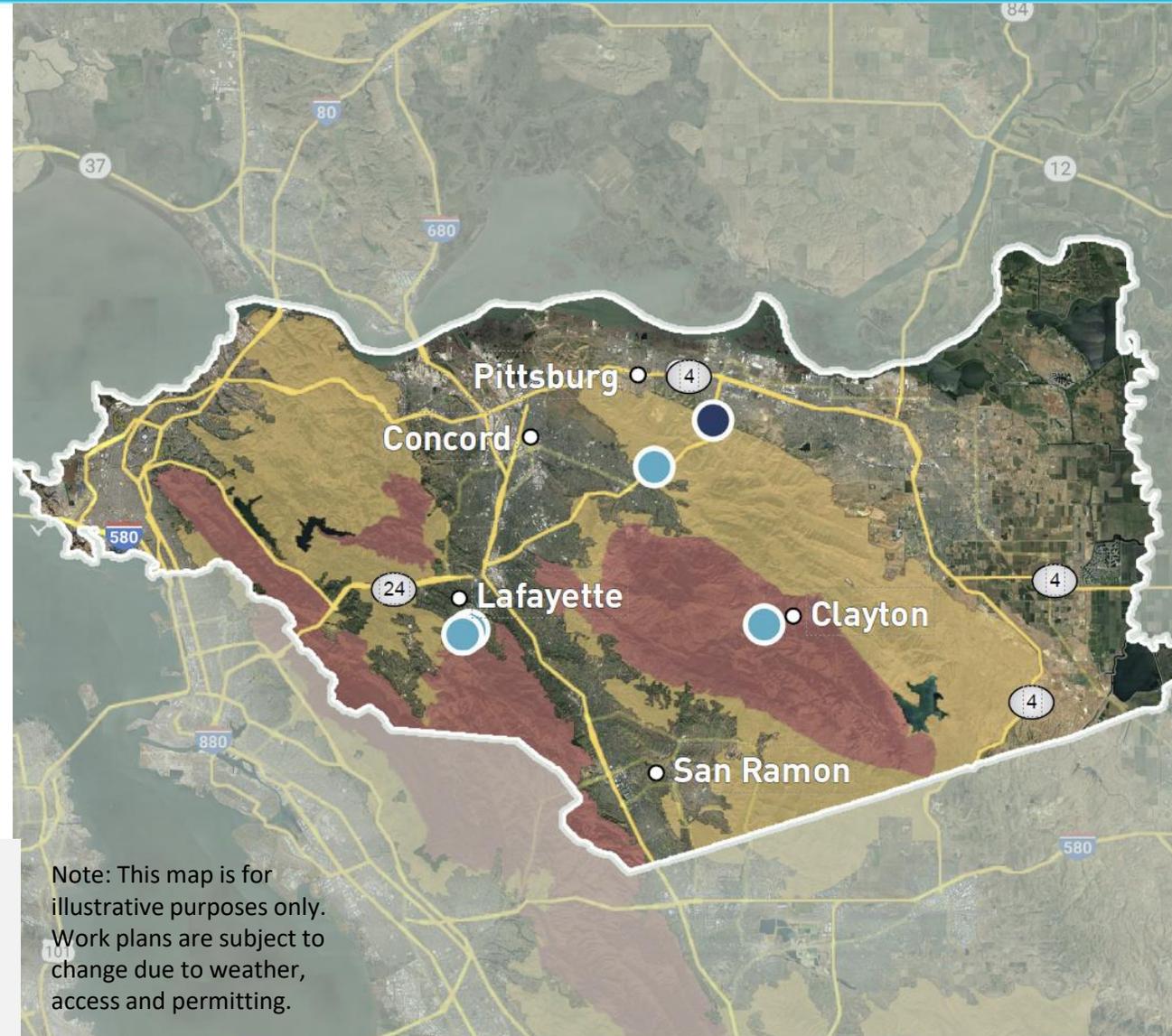
- 2022 Planned/Completed Miles
- 2023 Planned Miles

High Fire-Threat District

- Tier 3 - Extreme
- Tier 2 - Elevated

Learn more about our undergrounding efforts at

pge.com/systemhardening



Note: This map is for illustrative purposes only. Work plans are subject to change due to weather, access and permitting.

Data is as of 02/1/22 and does not include undergrounding work related to the California Public Utilities Commission's Rule 20 Program.



Undergrounding in San Mateo County

Strengthening the electric system by undergrounding our powerlines in and near high fire-threat areas.



**UNDERGROUNDING
PLANNED 2022-2023**

10 miles

Undergrounding

- 2022 Planned/Completed Miles
- 2023 Planned Miles

High Fire-Threat District

- Tier 3 - Extreme
- Tier 2 - Elevated

Learn more about our undergrounding efforts at

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Data is as of 02/1/22 and does not include undergrounding work related to the California Public Utilities Commission's Rule 20 Program.

Local Resilience Efforts

Enhanced Powerline Safety Settings



Enhanced Powerline Safety Settings (EPSS): A tool to help prevent wildfires

HOW IT WORKS

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We are expanding these settings across 25,500 distribution line miles in areas of greatest wildfire risk.



SAFETY SETTINGS IN ACTION

In 2021, these settings prevented a potential ignition when a tree branch fell into a powerline and power quickly and automatically turned off.

WHY WE DO IT



Quickly and automatically shutting off power when there is a problem can help stop wildfires before they have a chance to start.

PREVENTING WILDFIRES

~80%



decrease in CPUC-reportable ignitions in 2021 on EPSS-enabled circuits.*

*Compared to the prior three-year average.

What Are Enhanced Powerline Safety Settings?

1 When an **object strikes the line** or a fault occurs...

To help prevent wildfires during the hot and dry season, we adjust the sensitivity settings on our equipment to quickly and automatically turn off power if the system detects a problem.

2 ...protective devices detect the change in current and **shut off power within one-tenth of a second.**

3 **We check the lines for damage before safely restoring power.** This process can take several hours, depending on terrain.

Patrols are done by helicopter, truck or on foot during daylight hours.

PG&E

For illustrative purposes only. Graphic is not to scale.

Refining Our EPSS Program To Reduce Impacts on Customers



Improvements In Place

- **Fine-tuning sensitivity** on our equipment to reduce the likelihood of an outage
- **Increasing communication** between our devices and patrol crews to reduce the size of outages
- **Amended patrol guidance** for EPSS-enabled circuits



Improvements Underway

- **Minimizing impacts** to customer reliability
- Installation of additional **animal protection on our equipment**
- **Targeted vegetation clearing** to prevent branch and tree fall-ins



Supporting Customers

- Expanding **generator and battery rebate** support
- Enhancing **customer and stakeholder engagement**
- **More accurate restoration times** during outages

Local Resilience Efforts

Microgrids, Remote Grids and Backup Generation





Substation Microgrid Program Update

PG&E has made significant improvements to our weather modeling and technology capabilities, grid operations and overall system resiliency.

As a result of these improvements, substations prepared for temporary generation in 2020 and 2021 are **now significantly less likely** to experience a PSPS-related outage than they were during previous years.

In 2021, **none of the substations prepared for temporary generation were utilized** to support customers during a PSPS or capacity related outage event.

Because of these improvements, PG&E is not planning to reserve any temporary generators for the purpose of energizing substations for PSPS outages in 2022.

Substation Microgrid Site	2021 PSPS Usage
BRUNSWICK (Nevada County)	Not utilized during 2021
CLEAR LAKE (Lake County)	Not utilized during 2021
CLOVERDALE (Sonoma County)	Not utilized during 2021
HARTLEY (Lake County)	Not utilized during 2021
HOOPA (Humboldt County)	Not utilized during 2021
KONOCTI (Lake County)	Not utilized during 2021
LOW GAP (Trinity County)	Not utilized during 2021
POINT MORETTI (Santa Cruz County)	Not utilized during 2021
WILLOW CREEK (Humboldt County)	Not utilized during 2021
BIG BASIN* (Santa Cruz County)	Not utilized during 2021
DOBBINS* (Yuba County)	Not utilized during 2021
WEIMAR* (Placer County)	Not utilized during 2021

*Energization plan only.



Systemwide Grid Resilience Efforts

In 2022, we are continuing to build upon our distribution microgrid and remote grid programs and plan to continue to utilize our previously identified islanding locations when possible.

Program	Description	2020 Total Sites	2021 Total Sites	2022 Total Sites Planned
Distribution Microgrids	Microgrids prepared to energize “main street” corridors, central community resources and critical facilities in areas that frequently experience PSPS events.	3*	8**	13
Remote Grids	Remote Grids use a combination of solar power, battery storage and propane generation to provide energy to customers independent from the larger electric grid.	0	1	3***
Islanding Locations	Reconfiguration of local generation sources to allow certain areas to be separated from the larger electric grid and remain energized during PSPS events.	0	6	6

Local work plans are subject to change and data is based on the best available information at this time.

*Does not include 4 additional sites that were made ready to operate using a temporary configuration in 2020

**Does not include 1 additional site that was made ready to operate using a temporary configuration in 2021

***Additional sites may also be completed in 2022

Local Resilience Efforts

EPSS/PSPS Customer Support





Self-Generation Incentive Program

Providing customers rebates for battery storage and renewable generation.

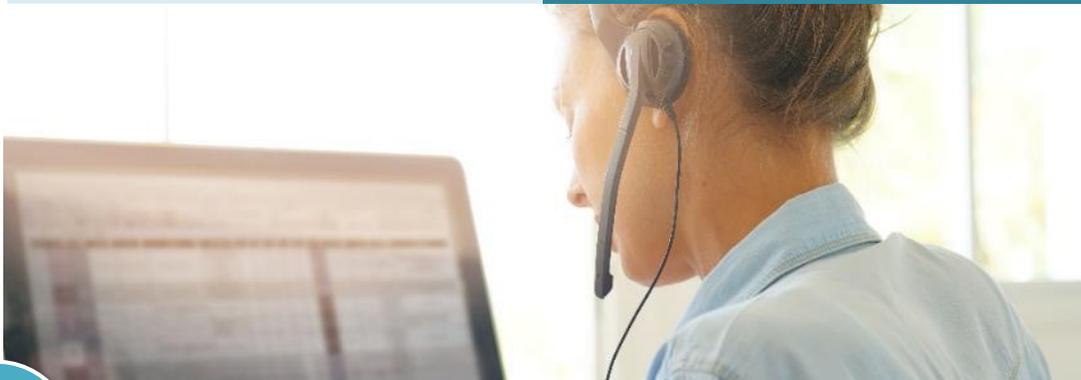
pge.com/batteryincentive



Portable Battery Program

Supporting eligible customers with fully subsidized portable battery solutions.

pge.com/pspsresources



Generator and Battery Rebate* Program

Rebates for eligible customers to purchase a qualifying generator or battery.

pge.com/backupper



Partnership with 211

24/7 free and confidential support and access to local resources during periods of critical need via calls or texts to 211.

211.org



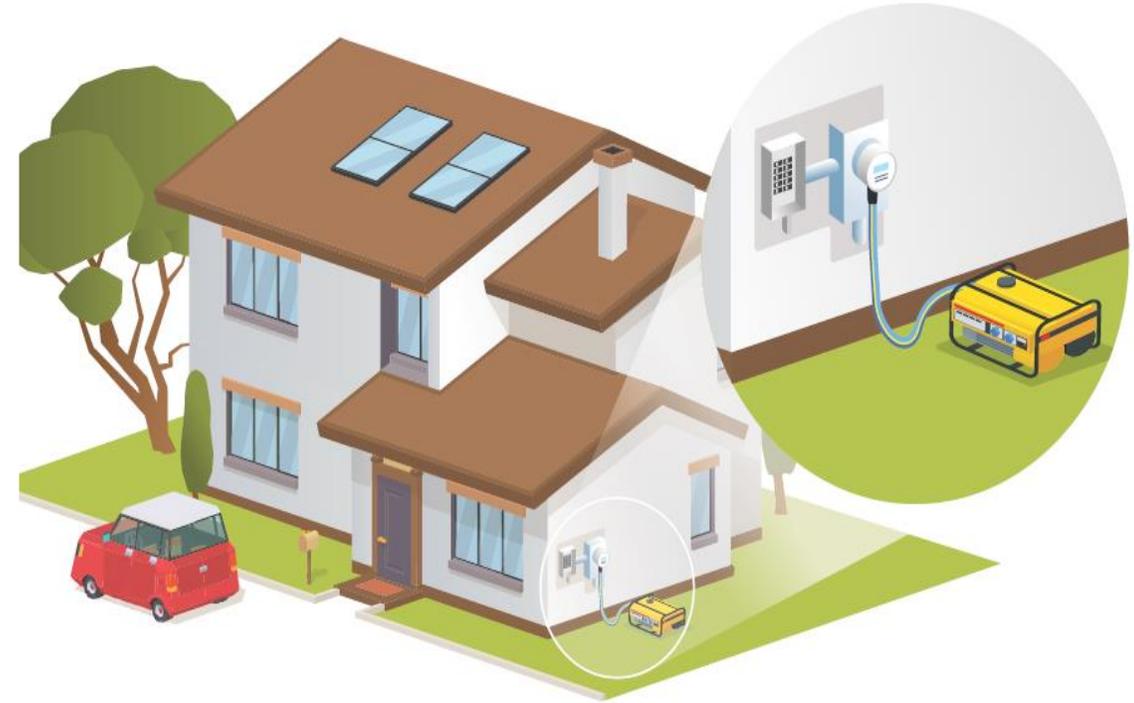
**Please note the portable battery program is not eligible for customers experiencing EPSS.*

Backup Power Transfer Meter Support

PG&E has developed a new meter program to help our customers safely power their homes during emergency outages.

- 
 The program provides a **safe way for customers to connect generator power** to their homes.
- 
 The **power is delivered directly to the circuit breaker** when you connect the generator to the meter and will also eliminate any power cords running through your home.
- 
 Be sure to **start the generator at a safe location** and program to your home specifics.
- 
 This program also provides **an affordable solution** for customers who are unable to afford solar or backup battery systems.

pge.com/transfERMeter



When utility power returns customers should:

- 01** Turn off your generator
- 02** Adjust your breaker panel to set all circuit to the “on” position
- 03** Unplug the cord from the generator to disconnect from the meter



More Information and Tools For Customers to Prepare

BEFORE PSPS AND EPSS OUTAGES

- **See if you qualify for backup power support** at pge.com/backuppower.
Generator rebates for customers who rely on well water **Portable batteries** for Medical Baseline customers in high fire risk areas
- **Apply for the Medical Baseline Program** to receive energy savings and extra outreach before a PSPS at pge.com/medicalbaseline.
- **Self-identify for Vulnerable Customer Status** if you or someone in your home's life or health would be at risk should electric or gas service be disconnected at pge.com/vulnerable.

DURING PSPS OUTAGES

- **Find Community Resource Centers** to charge personal and medical devices and get basic supplies during a PSPS at pge.com/crc.
- **Replace lost food** at your local food bank during and up to three days after an outage, visit pge.com/pspsresources.
- **Prepare an emergency plan** including portable backup power, hotel accommodations and accessible transportation at disabilitydisasteraccess.org.

Visit PG&E's YouTube Channel

To view more safety information, tips to be prepared and other resources

www.youtube.com/user/pgevideo



To view webinar slides and recordings, visit

www.pge.com/firesafetywebinars



For more information

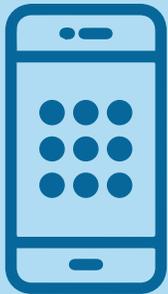
Visit pge.com/wildfiresafety
Call us at **1-866-743-6589***
Email us at wildfiresafety@pge.com



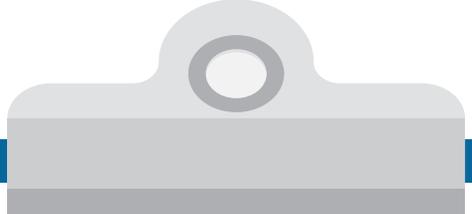
**Translated support available*



Insert your questions or feedback into the chat function.



Ask your question or provide your feedback verbally by unmuting your line.

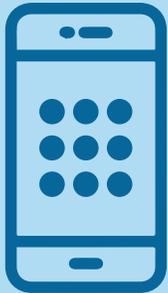
- 
- Where does PG&E plan to underground 10,000 miles of powerlines?**
 - How has the EPSS program changed since 2021?**
 - How can my community better utilize the customer resources that PG&E offers?**

Resilience Planning Flyover





Insert your questions or feedback into the chat function.



Ask your question or provide your feedback verbally by unmuting your line.



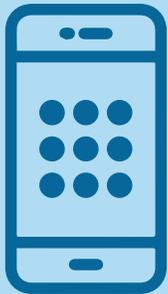
Can you show me how undergrounding a section of powerlines can help to minimize Public Safety Power Shutoff impacts?



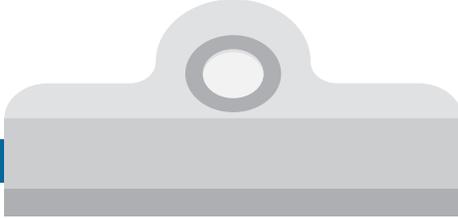
What do EPSS changes look like in my community?



Insert your questions or feedback into the chat function.



Ask your question or provide your feedback verbally by unmuting your line.

- 
- Which resilience topics would you like us to cover in future Regional Working Group meetings?**
 - What resilience efforts are most important to your community?**
 - What changes (if any) would you make to the Regional Working Group meeting structure?**

- 
Meeting survey shared with participants to gather feedback on approach and content of regional working group

- 
Follow-up on items identified by local agencies/stakeholders

- 
Upcoming meetings
 - Q2 2022 Regional Working Group Meetings
 - Ongoing Local Government Engagement

2022 REGIONAL WORKING GROUP CALENDAR

TIMING	TOPICS
Q2 2022	Public Safety Power Shutoff and Wildfire Safety Updates

Beginning next quarter

we plan to send invites from

PSPSRegionalWorkingGroups@pge.com



Thank You



Appendix





Performance Against Our 2021 WMP Goals

Key 2021 WMP Programs

System Hardening

Includes **70** miles of undergrounding

211 MILES **117%** HARDENED

180 TOTAL MILES BY 12/31/21

Enhanced Vegetation Management

Completed **98%** of work on the top 20% highest risk circuits, **exceeding goal of 80%**

1,983 MILES **110%** COMPLETED

1,800 TOTAL MILES BY 12/31/21

Additional Programs to Mitigate Wildfire Risk and Improve Situational Awareness

Weather Stations

308 STATIONS **103%** INSTALLED

300 TOTAL STATIONS BY 12/31/21

Sectionalizing Devices

269 DEVICES **108%** OPERATIONAL

250 TOTAL DEVICES BY 12/31/21

High-Definition Cameras

153 CAMERAS **113%** INSTALLED

135 TOTAL CAMERAS BY 12/31/21

Transmission Line Switches

38 SWITCHES **131%** INSTALLED

29 TOTAL SWITCHES BY 9/1/21

NEW

2021 Programs Beyond WMP

Launched program to undergrounding powerlines
~10K miles as part of a multiyear effort

Implemented Enhanced Powerline Safety Settings (EPSS) on
~45% of HFTD circuit miles in 2021



Outstanding Follow Up and Action Items

Below is a list of the follow up and action items identified during the previous Regional Working Group meetings as well as corresponding statuses.

Action Item	Agency	Status
Follow up to confirm when/if the Vulnerable Customer Status application will be available entirely online (not as a PDF download).	Independent Living Resources in Solano and Contra Costa County	In Progress



Status of Planned/Upcoming Resilience Efforts – Systemwide

Program	County	Site Name/Area	Status	Estimated Completion
Distribution Microgrids	Butte	Magalia	Construction Complete	Q3 2022*
	Calaveras	Arnold	Planning	Q4 2022
	El Dorado	Georgetown	Construction Complete	Q3 2022*
	El Dorado	Pollock Pines	Construction Complete	Q3 2022*
	Lake	Clearlake North	Planning	Q4 2022
	Lake	Lucerne	Planning	Q4 2022
	Lake	Middletown	Construction Complete	Q3 2022*
	Napa	Angwin	Construction Complete	Q3 2022*
	Napa	Calistoga	Construction Complete	Q3 2022*
	Placer	Colfax	Construction Complete	Q4 2022*
	Placer	Foresthill	Construction Complete	Q3 2022*
	Shasta	Shingletown	Construction Complete	Q3 2022*
	Tuolumne	Groveland	Planning	Q4 2022
Islanding	Calaveras**	Salt Springs Island	Ready to Operate	N/A
	Calaveras***	West Point Island	Ready to Operate	N/A
	Humboldt	Humboldt Bay Island	Ready to Operate	N/A
	Plumas	Caribou Island	Ready to Operate	N/A
	Tehama	Red Bluff Island	Ready to Operate	N/A
	Tuolumne	Spring Gap	Ready to Operate	N/A

Local work plans are subject to change and data is based on the best available information at this time.

*Temporary generation procurement and energization plan finalization targeted completion of 9/1.

**Also serves portions of Amador and Alpine Counties.

***Also serves portions of Amador County.



Status of Planned/Upcoming Resilience Efforts – Systemwide

Program	County	Site Name/Area	Status	Estimated Completion
Remote Grids	Mariposa	Briceburg	Operational	N/A
	Mariposa	Miami Mountain	Planning	Q4 2022
	Tehama	Corning 1	Planning	Q4 2022
	Tehama	Corning 2	Planning	Q4 2022
	Mariposa	Mariposa	Planning	Q4 2022
	Sonoma	Pepperwood Preserve	Planning	Q4 2022
	Tehama	Manton 1	Planning	Q2 2023
	Tehama	Manton 2	Planning	Q2 2023
	Tehama	Manton 3	Planning	Q2 2023
	Madera	Coarsegold	Planning	Q2 2023
	Yuba	Bangor	Planning	Q2 2023
	Lake	Clearlake	Planning	Q2 2023
	Lake	Middletown	Planning	Q2 2023
	Tulare	Whitaker Forest	Planning	Q2 2023
	Tuolumne	Vallecito	Planning	Q2 2023
	Glenn	Alder Springs	Planning	Q3 2023
	San Luis Obispo	Carrizo Plains	Planning	Q3 2023
Marin	Inverness	Planning	Q3 2023	

Local work plans are subject to change and data is based on the best available information at this time.



Systemwide PSPS Customer Support

Customer Support Resources



77 partnerships with community-based organizations



13,079 batteries provided



1,044 hotel stays provided

Food Replacement Resources



26 participating Meals on Wheels in **22** counties



22 supporting food banks in **37** counties

Bay Area Community-Based Organizations

CFILC

- Center for Independence of the Disabled
- Community Resources for Independent Living
- Independent Living Resources of Solano & Contra Costa Counties

Food Banks

- Alameda County Food Bank
- Food Bank of Contra Costa & Solano
- Second Harvest Food Bank of Silicon Valley
- Open Heart Kitchen
- The San Francisco Food Bank

Meals on Wheels

- Life ElderCare
- Meals on Wheels Diablo Region
- Peninsula Volunteers

- Senior Coastsiders
- Service Opportunity for Seniors
- Spectrum Community Services
- West Contra Costa Meals on Wheels

In-Language Media

- Alianza News
- Fusion Latina Network
- KDTV Univision
- KIQI Radio
- KRON4.2-Skylink TV
- KSFN-News for Chinese Radio
- KTSF-TV
- KTVO-Sing Tao Radio

- KZSF Radio
- Lotus Radio Sacramento
- Movimiento Cultural del a Union Indígena
- PAMA One Radio
- Puente
- Radio Lazer SJ (KSFN)
- Radio Lazer SJ (KXZM 93.7 FM)
- KSJZ Korean-American Radio

**PG&E Gas and Electric
Advice Submittal List
General Order 96-B, Section IV**

AT&T
Albion Power Company

Alta Power Group, LLC
Anderson & Poole

Atlas ReFuel
BART

Barkovich & Yap, Inc.
Braun Blasing Smith Wynne, P.C.
California Cotton Ginners & Growers Assn
California Energy Commission

California Hub for Energy Efficiency
Financing

California Alternative Energy and
Advanced Transportation Financing
Authority
California Public Utilities Commission
Calpine

Cameron-Daniel, P.C.
Casner, Steve
Center for Biological Diversity

Chevron Pipeline and Power
City of Palo Alto

City of San Jose
Clean Power Research
Coast Economic Consulting
Commercial Energy
Crossborder Energy
Crown Road Energy, LLC
Davis Wright Tremaine LLP
Day Carter Murphy

Dept of General Services
Don Pickett & Associates, Inc.
Douglass & Liddell

East Bay Community Energy Ellison
Schneider & Harris LLP
Engineers and Scientists of California

GenOn Energy, Inc.
Goodin, MacBride, Squeri, Schlotz &
Ritchie
Green Power Institute
Hanna & Morton
ICF
International Power Technology

Intertie

Intestate Gas Services, Inc.
Kelly Group
Ken Bohn Consulting
Keyes & Fox LLP
Leviton Manufacturing Co., Inc.

Los Angeles County Integrated
Waste Management Task Force
MRW & Associates
Manatt Phelps Phillips
Marin Energy Authority
McClintock IP
McKenzie & Associates

Modesto Irrigation District
NLine Energy, Inc.
NRG Solar

OnGrid Solar
Pacific Gas and Electric Company
Peninsula Clean Energy

Pioneer Community Energy

Public Advocates Office

Redwood Coast Energy Authority
Regulatory & Cogeneration Service, Inc.
SCD Energy Solutions
San Diego Gas & Electric Company

SPURR
San Francisco Water Power and Sewer
Sempra Utilities

Sierra Telephone Company, Inc.
Southern California Edison Company
Southern California Gas Company
Spark Energy
Sun Light & Power
Sunshine Design
Tecogen, Inc.
TerraVerde Renewable Partners
Tiger Natural Gas, Inc.

TransCanada
Utility Cost Management
Utility Power Solutions
Uplight
Water and Energy Consulting Wellhead
Electric Company
Western Manufactured Housing
Communities Association (WMA)
Yep Energy