







2022 Public Safety Power Shut Off (PSPS) CPUC Briefing

August 2, 2022

Presenters:

Curt Mansfield, Senior Vice President, Power Delivery Erik Brookhouse, Vice President, System Operations Nora Yotsov, Director, Emergency Management Amy McCluskey, Managing Director, Wildfire Safety and Asset Management Drew Hanson, Senior Communications Specialist

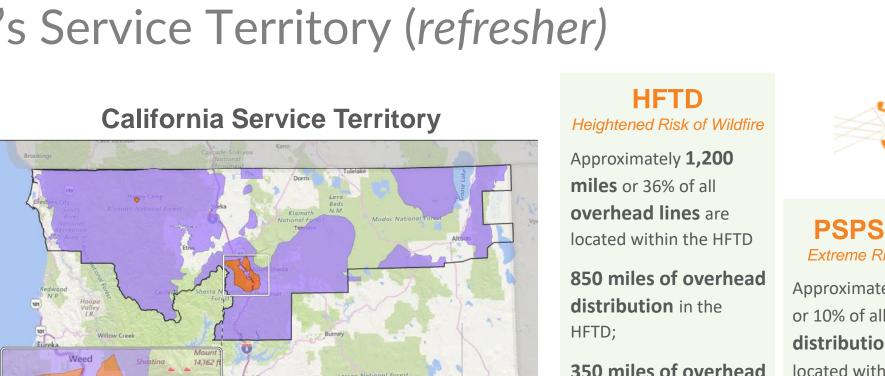


Agenda

- PacifiCorp's CA Service Territory
- PSPS Zones, Event History & 2022 Goals
- **NEW** Pre-Season Report (PRESR)
 - CRC Plan
 - Critical Facilities & Infrastructure Plan
 - PSPS Exercise Reports
 - Education & Outreach
 - Notification Plan
- Post Event Reporting Improvements
- Elevated Fire Risk (EFR) Settings
- Grid Hardening Update
- Medical Baseline / Access and Functional Needs
- Customer Resources



PacifiCorp's Service Territory (refresher)



350 miles of overhead transmission in the **HFTD**

Programmatic Shifts

- Increased Frequency of **Asset Inspections**
- Accelerated Condition Correction
- Enhanced Vegetation Management



PSPS Zones Extreme Risk of Wildfire

Approximately **250 miles** or 10% of all overhead distribution lines are located within 5 individual PSPS Zones

- **Prioritized System** Hardening
- **Covered Conductor**
- Advanced Protection and Control
- **Expulsion Fuse**
- Replacements

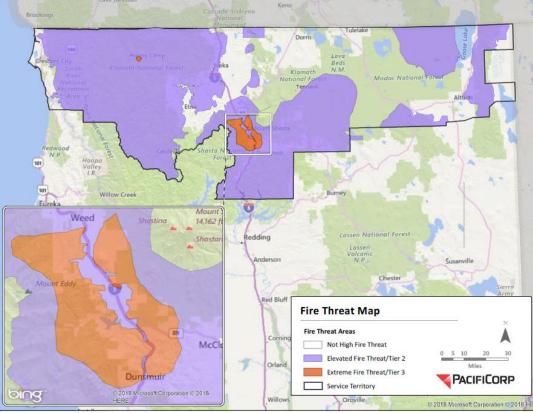
General Stats



System Wide Initiatives



- Situational Awareness
- **Operational Protocols** \checkmark
- Community Education and Outreach



PSPS History & Goals

- PacifiCorp has identified 5 discrete PSPS Zones in two extreme geographic areas
- PSPS Zones reflect extreme risk locations and serve as a starting point



Continue using PSPS as a tool and measure of last resort while:

Reducing the Scale, Scope, & Frequency through:
Grid Hardening to make the system more resilient
Installation of new devices to support sectionalization
Situational Awareness to facilitate a surgical approach

Mitigating Impacts of PSPS with:

- □ Enhanced planning & preparations
- □ Advanced warning and notifications
- CRC Activation to provide community services
- Customer Generation Programs

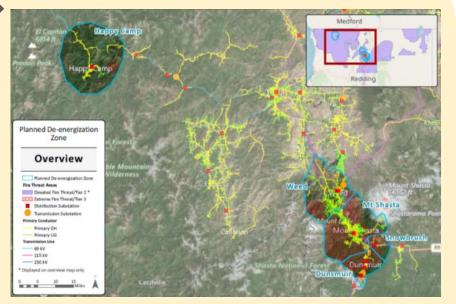


Metrics Trending Down (OUTPACING RISK INCREASE) # of PSPS Events Duration of Events Customer Impact Restoration Time



Metrics Trending Up (CONSISTENT WITH PSPS ACTIVITY) % Customers Notified % AFN Positive Customer Notifications CRC Activations Portable Battery Deliveries

PSPS Zones Reflect Extreme Wildfire Risk



PSPS Zone Name	Customers	OH Distribution	UG Distribution	# of Circuits
Dunsmuir	1,788	31	8	11
Нарру Сатр	626	40	6	4
Mt. Shasta	5,077	86	78	11
Snowbush	18	3	1	2
Weed	2,560	88	63	16
TOTAL	10,069	248	157	

Map of Public Safety Power Shut Off Zones

Pre-Season Report (PRESR)



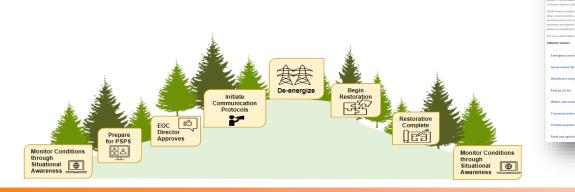
NEW Pre-Season Report Overview

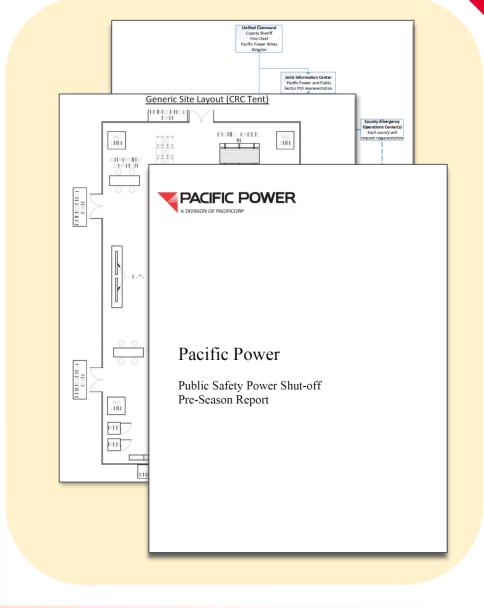
- Overview of Report
- Community Resource Center (CRC) Plan
- Critical Facilities and Infrastructure Plan
- PSPS Exercise Reports
- Education and Outreach
 - Preparedness coordination with local/tribal/county emergency response

Critical facilities and infrastructure

Public Safety Partner Porta

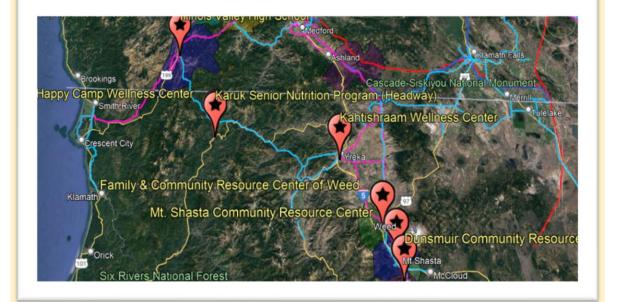
- Upgrades to public safety partner portal
- IOU liaison representative plans at counties and tribes
- Updates to public PSPS webpage
- Notification Plan





NEW PRESR – CRC Plan

Community Resource Centers (CRCs)



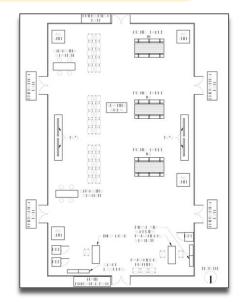
Available Services

- ✓ Shelter from environment
- ✓ Air conditioning
- ✓ Potable water
- ✓ Seating and tables
- ✓ Restroom facilities
- ✓ Refrigeration for medicine and/or baby needs
- \checkmark Interior and area lighting

- ✓ On-site security
- ✓ Communications capability such as Wifi access, Sat Phone, Radio, Cellular phone etc.
- ✓ Televisions
- ✓ On-site medical support (EMT-A at a minimum, Paramedic preferred)
- ✓ Charging stations

New in 2022!

- ✓ Air Purifiers
- ✓ Air Quality Monitors
- ✓ Ice
- ✓ Non-perishable snacks
- ✓ Small Crates for Pets
- ✓ Portable ADA Ramp



NEW PRESR– Critical Facilities & Infrastructure Plan

NEW Critical Facilities & Infrastructure Plan Included in Pre-Season Report

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	Table of Contrems	 			n subm SR repo	
Critical Facil	Plan Facilitation this 1.1.1 Nepton 1.1.2 Verpton 1.1.3 Verpton 1.1.4 Opticition 1.1.5 Optic International NetWork 1.1.6 Optic International NetWork 1.1.7 Other Linkins Nut Andreastica NetWork 1.1.8 Other Linkins Nut Andreastica NetWork 1.1.9 Other Linkins Nut Andreastica NetWork 1.19 Record of Charges	lr ✓ NEW	nfrastru / Entitio	ucture es can	l throu	ge s to be
		Facility Name	Location	Request Date	Approval or Denial	Reason for Denial
	3	TBD	TBD	TBD	TBD	TBD

2022 Goals

- Reach out to all critical facilities to review points of contact
- Gather addition information for enhanced planning, protocols, and reporting.
- Continue coordination with critical facilities and emergency response partners.

NEW Critical Facilities & Infrastructure Webpage

Critical facilities and infrastructure

< Back to wildfire safety

The California Public Utilities Commission (CPUC) has defined facilities and critical infrastructure as entities "that are essential to the public safety and that require additional assistance and advance planning to ensure resiliency during de-energization events."

Pacific Power provides prioritized restoration, backup power evaluation, additional communications and other resources before and during **Public Safety Power Shutoff events** to critical facility customers who provide services that are essential to public safety. We recognize that these customers require additional assistance and advance planning to ensure resiliency. Entities that fall within the industry sectors listed below are considered "critical facilities and infrastructure," as defined by the CPUC.

Are you a public safety partner? If so, visit our Public Safety Partner Portal.

Industry sectors

Emergency services sector	~
Government facilities sector	~
Healthcare and public health sector	~
Energy sector	~
Water and wastewater systems sector	~
Communications sector	~
Chemical sector	~
Food and agriculture sector	~

https://www.pacificpower.net/outages-safety/wildfire-safety/critical-facilitiesinfrastructure.html

NEW PRESR – PSPS Exercises



Completed Exercises

- April 28: Siskiyou County Tabletop Exercise
- May 26: Siskiyou County Functional Exercise

Common Observation Themes

- AFN Contact and partnership
- Telecommunications coordination for loss of capability
- Communications limits to rural areas

Identified Solutions

- AFN Liaison engagement with Public Health authorities and CBO/FBO in area
- Telecommunications contact information updated and coordination procedures formalized
- Customer service changing cadence for calls to prevent overwhelming communications infrastructure



needed



NEW PRESR – Education & Outreach

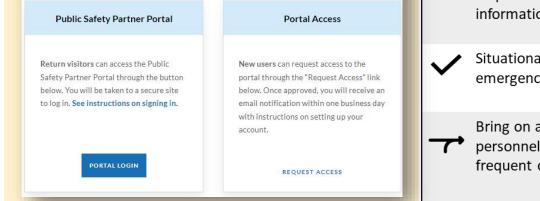
NEW Public Safety Partner Portal

Public Safety Partner Portal

The Public Safety Partner Portal is an online resource that includes Public Safety Power Shutoff planning and event-specific information for public safety partners to support emergency management efforts. Public Safety Partners include:

- Emergency responders from federal, state, local and tribal governments
- Telecommunications providers
- Water agencies
- Publicly owned utilities
- Emergency hospitals
- Transportation agencies

Maps and other information are updated monthly and can be accessed at any time. In the event of a **Public** Safety Power Shutoff, event-specific information will be made available to portal users before, during and after the outage to support emergency management efforts.





VPACIFIC POWER Public Safety Partner Portal

Files Critical Facilities Help



NEW PRESR – Notification Plan



- Once the decision is made to implement a PSPS, Notification Protocols are initiated
- Pending any changes to dynamic weather factors and risk, notifications protocols generally include:

Notification Protocols				
48-72 hours prior	De-energization warning to Public Safety Partners			
24-48 hours prior	De-energization warning			
1-4 hours prior	De-energization imminent			
Event begins	De-energization begins			
Re-energization begins	Re-energization begins			
Re-energization completed	Re-energization completed			
Cancellation of event	De-energization event canceled			

- During a PSPS event, notifications to medical baseline and AFN populations are managed separately from general notifications
- Pacific Power performs positive or affirmative communications using various methods:

Personal Calls Text Messages

Emails

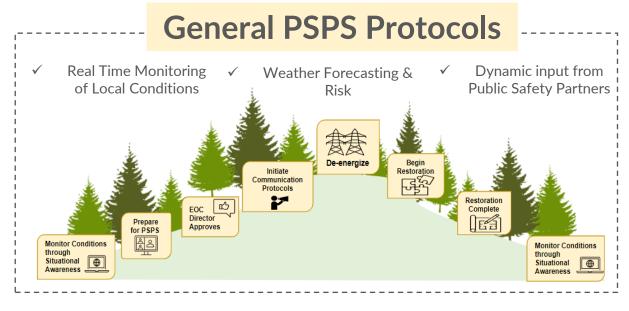
Home Visit

2022 Goals

- Enhance ability to better categorize AFN and Medical Baseline Customers
- □ Strengthen relationships with CBOs



Example: Initiated contact with Redwood Coast Resource Centers to better understand how to identify and serve AFN populations



NEW Improvements to Post Event Reporting

- Automation via shared tool
- Real time reporting and data collection
- Ready for the 10-day window for reports
- Addresses PSPS reporting requirements template





NEW Internal Template Created

Document Name	Post PSPS Reporting Data Collection Template		
/ersion	1		
Publication Date	7/11/2022		
Purpose	Capture required information to suppor requirements	t post event reporting compliance	
itate Applicability	Can be used in all states (Captures all in	formation required by California)	
Seneral Instructions	Cells that require values, where applicable, are highlighted in yellow. Tabs are separated by responsible parties & will be assigned by the ECC during PSPS Event		
	1 J J LYCIN		
General Focus Areas	Responsible Department	Assigned Staff Member(s)	
General Focus Areas Decision Making	Responsible Department ECC Director	Assigned Staff Member(s)	
General Focus Areas Decision Making Scope	Responsible Department ECC Director Emergency Management	Assigned Staff Member(s)	
General Focus Areas Decision Making Scope De-energization	Responsible Department ECC Director Emergency Management System Operations	Assigned Staff Member(s)	
General Focus Areas Decision Making Scope De-energization Re-energization	Responsible Department ECC Director Emergency Management System Operations System Operations	Assigned Staff Member(s)	
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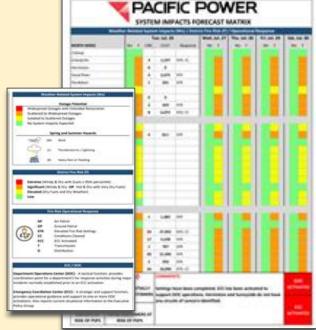
Elevated Fire Risk Settings (EFR)

Elevated Fire Risk (EFR) Settings

- Pacific Power is upgrading relays and reclosers (grid hardening)
- These upgraded devices are now capable of multiple types of settings or "modes", including Elevated Fire Risk (EFR) settings
- While no two circuits are the same, EFR settings are designed to clear faults in < **1** second and limit arc energy, as compared to traditional schemes where clearing times can be 4-10 seconds

Risk-Based Application

- EFR Settings are deployed using a **risk-based** approach
- Daily reports are used to determine whether EFR settings are needed
- Standard outage notification and communication protocols are followed
- Enhanced patrolling
 performed during
 restoration



Outreach & Awareness

Press Release, July 24, 2022

PORTLAND - With daily high temperatures forecast to near or above the 100-degree mark next week across parts of the Pacific Northwest, Pacific Power is prepared to face higher demands on the grid from both record temperatures and increased customer need.

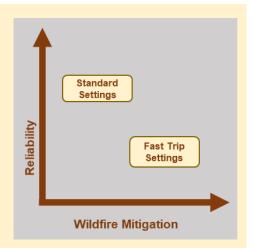
"We've taken steps for grid hardening, in particular since last summer, to prevent overloading at the substation level and on the distribution system," said Erik Brookhouse, vice president of system operations for Pacific Power, "We are confident about our network's readiness for this summer."

Wildfire conditions have elevated too and Pacific Power has taken additional safety precautions in high risk areas to reduce the risk of wildfire. Among other measures, the company is conducting additional patrols of power lines and temporarily modifying targeted system settings to be more sensitive.

•	Operate the clothes dryer and dishwasher at night.
•	If you have air conditioning, set it to maintain an interior temperature of 78 degrees, higher when you are
	away from home.

Deployment of CFCIs

- Risk based deployment of EFR settings can still have an inverse impact on reliability
- Deployment of CFCIs (fault indicators) **improves restoration time** and can **reduce impact** to customers





Grid Hardening Update



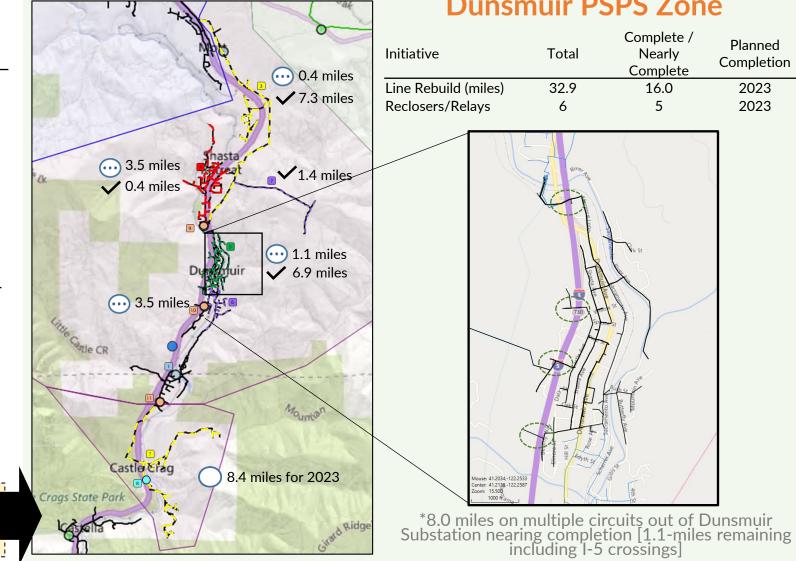
Grid Hardening Update

In 2021, as part of Wildfire Mitigation efforts, Grid Hardening:

- Completed installation of 20 miles of covered conductor in \checkmark HFTD
- Completed installation of 32 reclosers and relays \checkmark
- 21 Weather Stations \checkmark

In 2022, as part of Wildfire Mitigation efforts, Grid Hardening:

	2022 Progress / Plan			
Covered Conductor	26 of 112 miles			
Relays, Reclosers, Circuit Breakers	5 of 51 devices (up from 36)			
Weather Stations	35 / 50 stations			
NEW: Fault Indicator Installations	550 / 557 installed			
NEW: Expulsion Fuse Replacements	Initiated / 2,269 fuses			
Grid Hardening is planned and prioritized to target and mitigate PSPS Zones				



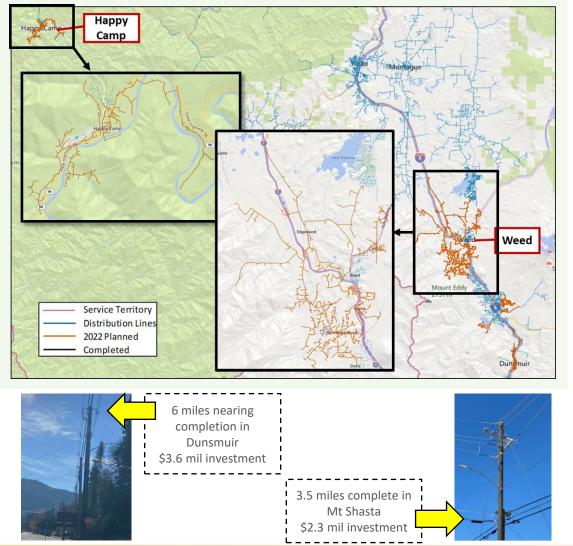
Dunsmuir PSPS Zone

2023

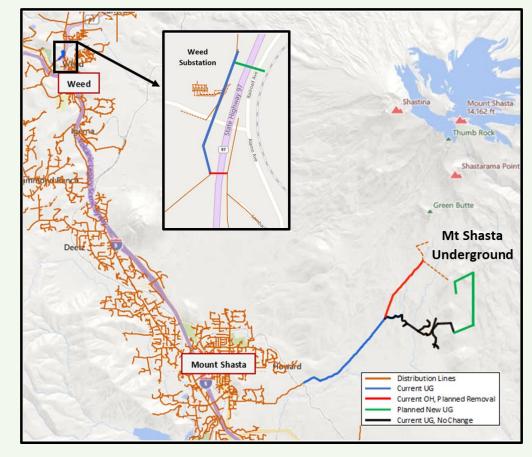
2023

Grid Hardening Update

2022 CC Planned Work



2022 Undergrounding Scoped



Two projects identified for potential underground [Mt. Shasta & Weed]

- Heavy tree canopy with limited access
- High elevation with high pole loading requirements
- No customer meter replacements required

Medical Baseline, AFN, & Customer Resources

PACIFICORP

Medical Baseline & AFN Customer Identification

CARE Program – Updated in 2021

- \checkmark All applications and re-certification forms were updated with the following:
- Check this box if someone in your household has a disability, or requires accessibility, financial or language support during a public safety power outage. Pacific Power will provide an additional notification prior to a public safety power shut off. For more information, visit pacificpower.net/wildfire.
- Forms are mailed to residential and master-meter customers to enroll in the discounted rate schedule or to re-certify and remain on the rate.

Medical Customers

- Due to the pandemic, customers . can self-certify as a medical customer with no documentation.
- All medical customers are coded . as AFN customers.
- All customers receiving an . application for medical certification will receive information and will be able to identify as an AFN customer.

Program (CARE) If you or a family member is on life support or ba may be eligible for a 20 percent discount on your Patific Power bill through CARE, CARE walable to residential customers who me comi requirements. d to maintain life or ha n that would be adversel antee that power well not be interrupte wither-related outgess, other nces outside of our control, or servi I nonpayment, it does list you in managing your rid what is normally allow

Medical Baseline

Program



California Alternate

Rates for Energy

acific Prover munication is a big part of staving safe

Outage preparedness

open at any time. That's why it's importa-

food and water for all people and pets is

rish batteries, solar phone diargers, fr ssertial phone numbers and cash.

Do not use candies if onverse equipment

A storm, wildline or other emergency car

a plan ready, year round, in cas

coowarnet or by chone at 1-888-221-707

2022 Update

- Since February 2022, there has been **an increase of 133** total AFN customers (28 percent)
- PacifiCorp continues to seek improvements to identifying the electricity dependent customers with AFN through defining. mapping, and enabling self-identification, and has mapped their respective databases to code customer accounts accordingly
- As a part of the planning process, the team worked to identify the targeted individuals and benchmark with state agencies to create an informed estimate of the number and types of individuals with disabilities and others with AFN residing in the community
- All medical baseline customers are identified as AFN customers.

	July 2022 AFN C	ustomer Counts	
PSPS De- Energization Zone	Medical Baseline AFN	Non-Medical Baseline AFN	Total
Inside	26	108	134
Outside	103	363	466
Total	129	471	600

Backup Generation Programs

NEW Website and Reference Material

MY ACCOUNT OUTAGES & SAFETY SAVINGS & ENERGY CHOICES

DICES Q 📞 📽 SIGN IN



Backup electric power

An electric generator can be a valuable addition to your preparedness plan in the event of a power outage. Because generators are not connected to the power grid, they can help keep lights on and appliances operating, as well as charge important electronic devices.

We can help you determine if a portable generator or portable power station is right for your home and learn how to safely use these sources of backup power generation.



Choose your state for more about generators, safety and possible rebates

IS BACKUP POWER RIGHT FOR YOU?

USE BACKUP POWER SAFELY

CALIFORNIA GENERATOR REBATES

Steps to help select backup power

A portable electric generator or a portable power station can help provide electricity to the appliances, devices and systems that you need most in an emergency. But they can also be loud, costly and potentially pose safety hazards. If you decide that a portable generator is right for you, it is essential to learn how to safely operate the device prior to an emergency. Generators also require proper storage, access to fuel and regular safety checks.

Types of generators for home use

https://www.pacificpower.net/outages-safety/storm-emergency-preparedness/backup-generators.html

Generator Rebate Program

- Rebate offered on the purchase of a portable generator or portable power station to customers who:
 - Reside in Tier 2 or Tier 3 area
 - Additional rebate to Access and Functional Needs (AFN) customers



Free Portable Battery Program

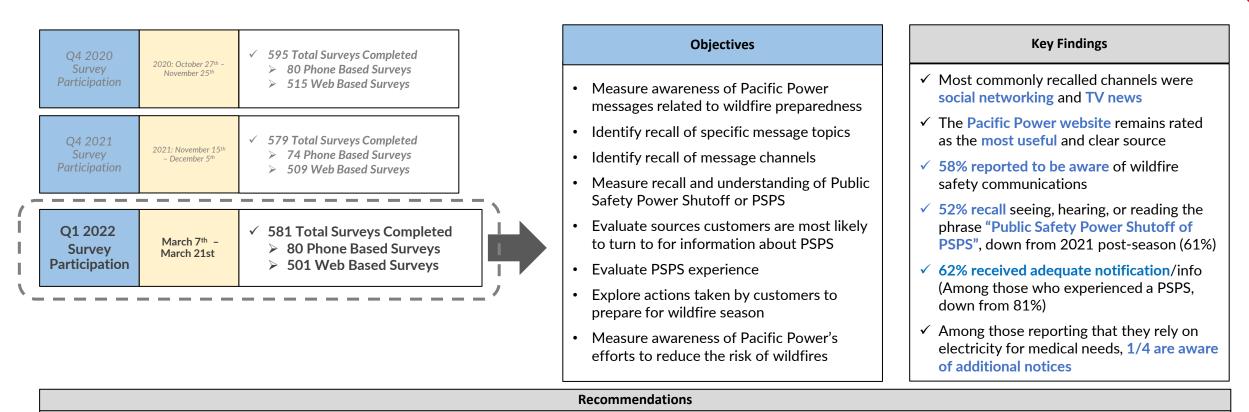
 Implemented in 2021 to provide back-up batteries – at no cost – to medical baseline customers

Program Includes:

- Technical assessment of needs
- Free-to-the customer portable batteries
- Training
- Customer Support



Customer Pre-Season Survey



- Continue utilizing TV news and social media to reach customers; evaluate email cadence, as email is no longer among the top information channels.
- Focus media and social media communications on driving customers to the website, as well as leveraging bill inserts to communicate quick highly important information, and to
 refer customers to the website for more detail.
- Focus communications on PSPS, how to be prepared and respond to an outage (including an emergency kit and readiness plan), and the steps Pacific Power is taking.
- ✓ Evaluate the current off-season messaging plan.
 - Awareness of PSPS is down in March 2022 and mirrors May 2020, which awareness is much higher in previous August and November waves.
 - Consider off-season messaging around steps Pacific Power is taking to mitigate risk and help customers prepare.

CBO Pre-Season Survey

CBO Surveys

- CBOs are surveyed twice annually, pre-season and post-season, to assess the company's engagement and communication efforts.
- The survey is structured as a 30-minute conversation, so it is a much more robust feedback forum than a general questions and answers survey.
- Feedback is then incorporated into the company's ongoing communication and outreach efforts, where applicable.
 - Example: Some CBOs conveyed they can share company PSPS and wildfire safety brochures. Sending bulk informational packets to CBOs has now become a standard practice in the company's wildfire safety communication outreach.

Latest CBO Survey

Q1 2022 Survey Participation March 7th -March 21st Solution Solution Solution March 21st Solution March

Current Communications Fire departments and emergency services organizations are highly engaged with Pacific Power when it comes to wildfire response and preparation, as well as preparation for PSPS events. Broad-based CBOs often receive communications and resources from Pacific Power related to CARE and low-income resident support, but typically not related to wildfire preparation or PSPS Most communications and resources received about wildfires (from any organization, including government or fire agencies) are focused on evacuation preparedness (e.g., where to go), personal preparedness (e.g., brush clearing), and less about how to prepare for an outage due to PSPS Organizations are not aware of Pacific Power's Generator Rebate Program, although providing access to generators did emerge as an important priority

 Social media, and Facebook in particular, are commonly used for communications, along with inperson meetings, print flyers, and door to door interactions to alert those with medical needs (in the event of a fire); traditional CBOs also interact with clients when they visit the office (when not restricted due to the pandemic)

Spreading	the Word
-----------	----------

- ✓ Traditional CBOs are willing to help spread the word about wildfire preparedness, safety, and PSPS events
- ✓ English and Spanish are the primary languages required
- ✓ The most effective ways Pacific Power can support CBOs and emergency agencies in preparing the community include:
 - ✓ Sharing/creating content that can be shared on social media, either by linking to Pacific Power or for CBOs to post
 - Providing information for those with medical needs to ensure they are able to adequately prepare for a PSPS event or evacuation
 - Providing educational resources about how to prepare for an outage
 - ✓ Educating the community and CBO emergency response agencies about the Generator Rebate program



Thank You!

