BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Examine Electric Utility De-Energization of Power Lines in Dangerous Conditions.

Rulemaking 18-12-005 (Filed December 13, 2018)

LIBERTY UTILITIES (CALPECO ELECTRIC) LLC'S (U 933-E) PUBLIC SAFETY POWER SHUTOFF 2022 POST-SEASON REPORT

Jordan Parrillo
Manager, Rates & Regulatory Affairs
Liberty Utilities (CalPeco Electric) LLC
701 National Avenue
Tahoe Vista, CA 96148
Telephone: (530) 721-7818
Lordan Parrillo@libertyutilities.com

Dated: March 1, 2023

Jordan.Parrillo@libertyutilities.com

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Liberty Utilities (CalPeco Electric) LLC ("Liberty") hereby submits its Public Safety Power Shutoff ("PSPS") 2022 Post-Season Report pursuant to Commission Decision 21-06-034 in Phase Three of R.18-12-005.

Respectfully submitted,

/s/ Jordan Parrillo

Jordan Parrillo Manager, Rates & Regulatory Affairs Liberty Utilities (CalPeco Electric) LLC 701 National Avenue Tahoe Vista, CA 96148 Telephone: (530) 721-7818

Dated: March 1, 2023 Jordan.Parrillo@libertyutilities.com

Attachment A		
Public Safety Power Shutoff 2022 Post-Season Report		

Section I, Background: Overarching Regulation

1. Each electric investor-owned utility must file a comprehensive [prior year] Post-Season Report, no later than March 1 of each year, in R.18-12-005 or its successor proceeding. The report must follow a template provided by SED no later than 60 days after SED posts a [prior year] Post-Season Report template on the Commission's website. Parties may file comments on these reports within 20 days after they are filed and reply comments within 10 days after the final date to file comments.

[Authority: Decision (D.) 21-06-034; Guidelines at p. A15, Section K-3]

2. The [prior year] Post-Season Report must include but will not be limited to: f. Annual report, as applicable, required by Ordering Paragraph 66 of D.21-06-014.

[Authority: D.21-06-034; Guidelines at p. A15, Section K-3.f]

3. To the extent a required item of information is also required to be included in the electric investor-owned utility's Wildfire Mitigation Plan, the [prior year] Post-Season Report may refer to the electric investor-owned utility's Wildfire Mitigation Plan rather than repeat the same information; such reference must specify, at minimum, the page and line number(s) for where the required information is contained within the electric investor-owned utility's Wildfire Mitigation Plan. In cases where this reference is to data, a summary table of the data shall be provided in the report.

[Authority: D.21-06-034; Guidelines at p. A17, Section K-3]

Section II: Amendments to Post-Event Reports

A. Regulatory Requirements

1. Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company must provide aggregate data, as identified above [D.21-06-014, Ordering Paragraph (OP) 65], in an annual report, including aggregate data that may not have been available at the time the utility filed the 10-day post-event report and must contact the Commission's Safety and Enforcement Division if the utility requires additional guidance to ensure adequate reporting on the requirement to provide information on affected customers in the 10-day post-event reports.

[Authority: D.21-06-014; OPs 65 and 66]

N/A

2. Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), and San Diego Gas & Electric Company (SDG&E) must address, among other things, each element of Resolution ESRB-8 reporting requirements, as clarified herein, in the 10-day post-event reports, including the below [OP 65] and, if no information is available, PG&E, SCE, and

SDG&E must respond to these Resolution ESRB-8 reporting requirements by indicating the reason this information is not available.

[Authority: D.21-06-014; OPs 65 and 66]

N/A

B. Direction

- 1. Provide any information missing [including, but not limited to the specific topics listed below] from any Post-Event Report for Public Safety Power Shutoffs (PSPS) in 2022 by:
 - a. Identify the date name of the PSPS.
 - b. Identify the Section of the Post-Event Report template for which the missing information will be added.
 - c. Provide the missing information under that heading.

[Authority: D.21-06-014; OPs 65 and 66]

N/A

2. Community Resource Centers:

Provide aggregate data, including aggregate data that may not have been available at the time the utility filed the 10-day post-event report:

a. Address and describe each Community Resource Center during a de-energization event.

[Authority: D.21-06-014, OPs 65 and 66]

N/A

3. Notification:

Provide aggregate data that may not have been available at the time the utility filed the 10-day post-event report:

- a. Identify who the utility contacted in the community prior to de-energization and whether the affected areas are classified as High Fire Threat District Tier 1, Tier 2, or Tier 3 (as defined in General Order 95, Rule 21.2-D22);
- b. Explain why notice could not be provided at least two hours prior to a de-energization if such notice was not provided.

[Authority: D.21-06-014, OPs 65 and 66]

N/A

4. Restoration:

Provide aggregate data, as identified in OP 65, in an annual report, including aggregate data that may not have been available at the time the utility filed the 10-day post-event report:

a. Provide a detailed description of the steps the utility used to restore power.

[Authority: D.21-06-014, OPs 65 and 66]

N/A

Section III: Decision-Specified

A. Education and Outreach

1. Include the results of the most recent education and outreach surveys not yet previously reported on, as an attachment to the Post-Season Report. See D.21-06-034, Sections E-1.1. – E.1.4. for specific requirements on the surveys.

[Authority: D.21-06-034, Guidelines at p. A7, Section E-1]

Refer to attachments: "Attachment 1 - Liberty Wildfire Messaging Awareness – Wave 1" and "Attachment 2 - Liberty Wildfire Messaging Awareness – Wave 2."

B. Medical Baseline and Access and Functional Needs

- 1. Describe in detail all programs and/or types of assistance, including:
 - a. Free and/or subsidized backup batteries
 - b. Self-Generation Incentive Program Equity Resiliency Budget
 - c. Community Microgrid Incentive Program [sic] ["Microgrid Incentive Program" per D.21-01-018]
 - d. Hotel vouchers
 - e. Transportation to CRCs
 - f. Any other applicable programs or pilots to support resiliency for persons with access and functional needs and vulnerable populations.

Liberty has the following programs that provide PSPS support for persons with access and functional needs ("AFN") and vulnerable populations. More information on most programs can be found in Liberty's 2023 Plan to Support AFN Populations During PSPS.

- a. Free and/or subsidized backup batteries: On February 11, 2022, Liberty filed its Customer Resiliency Program ("CRP") application with the Commission. The proposed CRP includes a behind-the-meter ("BTM") battery storage program that will be offered to Liberty's critical needs customers, including medical baseline ("MBL") customers and critical facilities. Liberty is actively working to obtain regulatory approval of the program.
- b. Self-Generation Incentive Program Equity Resiliency Budget: N/A
- c. Community Microgrid Incentive Program: N/A
- d. **Hotel Vouchers**: Liberty does not have a specific hotel voucher program in place. In the past, however, Liberty has accommodated requests from customers for lodging during significant

- outage events on an as-needed basis. Liberty has ordered gift cards for use during PSPS events on an as-needed basis for food, lodging, or other customer needs. Liberty looks to continue partnerships with local organizations to remain aware of community needs.
- e. **Transportation to CRCs**: Liberty does not currently partner with transportation/paratransit services and plans to seek existing transportation/paratransit services available to customers in 2023.

f. Other applicable programs:

- i. Community-Based Organization ("CBO") Partners: Liberty seeks opportunities to provide PSPS preparedness information through established CBOs throughout the year. Liberty proactively sent PSPS and wildfire mitigation preparedness information via email to CBOs, city, county, and school contacts throughout its service territory in 2022 and discusses this information during physical site visits and virtual meetings with CBOs. Liberty also continues to grow and expand CBO networks throughout its service territory, providing materials and resource information for CBOs to share within the communities they serve.
- ii. Community Engagement: Liberty hosts community meetings throughout its service territory to educate customers on the PSPS determination and notification process. When applicable, Liberty will co-host meetings with public safety partners and AFN advocacy groups. Liberty discusses PSPS preparation with CBOs during physical and virtual meetings throughout the year. Liberty also provides PSPS materials to CBOs, cities, counties, and schools.
- iii. **AFN Outreach**: Liberty executes customer outreach to share information about PSPS awareness through a variety of methods, including community events, website resources, social media, bill inserts, targeted outreach to multi-family dwellings and mobile home parks, radio ads (including multicultural media), digital ads, print ads, and through call center staff. Liberty plans to execute AFN identification outreach through a variety of channels throughout 2023, including CBO outreach and targeted customer outreach to encourage AFN self-identification, customer program enrollment, and increased awareness of AFN resource availability where applicable.
- iv. **In-Language/Accessible Materials**: Liberty provides PSPS toolkit information in English, Spanish, French, German, Chinese, Vietnamese, and Tagalog. Liberty looks to continually improve accessibility of materials throughout 2023.
- v. Community Resource Centers ("CRCs"): Liberty continues to establish agreements with community partners and facilities throughout its service territory in preparation for PSPS events. Liberty has CRC agreements established throughout its service territory and continues to seek additional options to meet customer needs during potential PSPS events. Liberty has established an internal working group comprised of representatives from a variety of departments, including Emergency Management and Wildfire Mitigation, to focus on CRC planning. The group meets regularly to develop plans, determine priorities, and execute required action for CRC preparedness in 2023. This internal group continues to develop a thorough approach to CRC execution and collaborates externally with community stakeholders.

- vi. **Tribal Engagement**: Liberty maintains a working relationship with the Washoe tribal community, the only tribal community in Liberty's service territory. Liberty includes the Washoe Tribe as an essential public safety partner and has worked closely with tribal contacts regarding PSPS event preparation and the establishment of a CRC on tribal land during Liberty's potential PSPS event in September 2021. The Washoe Tribe has continued to provide helpful insights throughout 2022, not only through regular contact, but also through participation in survey efforts. Partnering with the Washoe Tribe has proven beneficial to the effectiveness of PSPS information sharing throughout the tribal community. Liberty will continue to develop a mutually supportive working relationship with the Washoe Tribe in 2023.
- vii. 211 Care Coordination and Referral Service: Liberty has engaged 211 contacts where available and plans to seek additional collaboration throughout 2023. 211 offers support to residents in most counties Liberty serves, excluding residents in Sierra and Plumas counties. Liberty implemented a webpage dedicated to 211 customer resource information during 2021. Liberty does not currently participate in 211 Care Coordination contracts.
- viii. **Preparation Exercises and Training**: In preparation for wildfire season, Liberty will conduct internal training for its Incident Management Team in May 2023 and a full scale PSPS exercise in June 2023. The full-scale exercise and the planning meetings leading up to the exercise will include Cal OES, CPUC, CAL FIRE, and OEIS, along with other public safety partners, including government, critical facilities, and local AFN contacts.
 - ix. Meals on Wheels: Liberty has investigated resources throughout its service territory to establish relationships with Meals on Wheels providers to provide funding for shelf stable food items to be distributed to Liberty clients, supporting PSPS preparedness. Liberty received positive responses and provided support in Markleeville, Coleville, North Lake Tahoe/Truckee, and Loyalton. Liberty plans to pursue this effort in 2023 and further expand network of Meals on Wheels contacts.
- 2. Identify and describe the costs and associated funding source(s) for all partnerships, each unique program and form of assistance (e.g., backup batteries as distinct from hotel vouchers), and any other efforts aimed at mitigating the impacts of [PSPS] events on persons with access and functional needs and vulnerable populations.

The costs associated with Liberty programs aimed at mitigating the impacts of PSPS events on persons with access and functional needs and vulnerable populations are tracked within three of Liberty's Wildfire Mitigation Plan ("WMP") initiatives: "WMP-EP-05: Customer Support in Wildfire and PSPS Emergencies," "WMP-CO-01: Public outreach and education awareness for wildfires, PSPS, outages from protective equipment and device settings, and vegetation management," and "WMP-GDOM-GO-03: Personnel work procedures and training in conditions of elevated fire risk." Costs are tracked as either labor or non-labor related costs. In 2022, Liberty's costs for WMP initiative WMP-EP-05 included \$12,640 of labor costs and \$51,951 of non-labor costs. Liberty's costs for WMP initiative WMP-GDOM-GO-03 included \$83,637 of non-labor costs. Liberty's costs for WMP initiative WMP-GDOM-GO-03 included \$196,782 of labor costs and \$96,510 of non-labor costs. Not all costs captured in these WMP initiatives are specifically associated with mitigating the impacts of PSPS events on persons with access and functional needs and vulnerable populations.

3. Funding source(s) shall specify applicable utility balancing accounts or other accounting mechanisms, and non-utility funding sources, if applicable.

The costs associated with Liberty programs aimed at mitigating the impacts of PSPS events on persons with access and functional needs and vulnerable populations are charged to the following Liberty balancing accounts: "8800-WMP-EXPENSE" and "WFMP-EXPENSE." Labor and non-labor related costs are broken down within this account using individual cost codes.

4. Identify any communities or areas not served by utility partnerships with CBOs that provide assistance to persons with access and functional needs or vulnerable populations in preparation for or during a [PSPS] event.

[Authority: D.21-06-034, Guidelines at p. A16, Sections K-3.d]

None.

C. Mitigation

- 1. For each proactive de-energization event that occurred during the prior calendar year:
 - a. Circuit-by-circuit analysis of mitigation provided from backup power and microgrids.

[Authority: D.21-06-034, Guidelines at p. A15, Section K-3.a.i.]

N/A

D. Public Safety Partners

1. Identification of all requests for selective re-energization made by public safety partners during a de-energization event, whether each such request was granted or denied, and the reason for granting or denying each such request.

[Authority: D.21-06-034, Guidelines at p. A16, Section K-3.c.]

N/A

E. Transmission

- 1. Description of the impact of de-energization on transmission.
- 2. Evaluation of how to mitigate and prepare for those impacts in future potential de-energization events.
- 3. Identify and describe all studies that are part of such analysis and evaluation.

4. Identify all efforts to work with publicly owned utilities and cooperatives to evaluate the impacts of de-energization on transmission

[Authority: D.21-06-034, Guidelines at pp. A15-A16, Section K-3.b.]

Liberty did not initiate any proactive de-energization events in 2022. Liberty does not own transmission lines that serve other non-Liberty customers. Therefore, any decision to de-energize Liberty-owned transmission would impact only Liberty customers (apart from a very small number of PG&E customers fed from Liberty's distribution lines near Echo Summit).

Liberty will continue to work with NV Energy and local POUs to prepare and coordinate on issues in advance of each PSPS season. Liberty's power provider is NV Energy, which is part of the NV Energy Balancing Authority Area. NV Energy has a program for proactive de-energization called Public Safety Outage Management ("PSOM"). The de-energization of transmission sources owned by NV Energy is not a Liberty PSPS event because the decision to de-energize is determined by NV Energy, which owns the transmission lines, and by NV Energy alone. In the event that an NV Energy de-energization impacts Liberty's power lines and customers, Liberty will follow established PSPS protocols when it comes to PSPS communications to the extent possible. Liberty will coordinate closely with NV Energy liaisons and will communicate relevant information to government entities, public safety partners, critical infrastructure providers, and customers. Liberty has worked closely with NV Energy's operations and emergency management staff to coordinate communications and share information regarding fire weather observations. Additionally, Liberty has regular meetings with NV Energy, Truckee Donner Public Utilities District, and public safety partners to discuss the impacts of an NV Energy de-energization to Liberty customers.

Section IV: Safety and Enforcement Division-Specified

1. Discuss how your meteorology and fire science predictive models performed over the year. What changes will you make to improve performance?

During the 2022 fire season, Liberty's meteorology and fire science predictive models performed qualitatively well. Incoming elevated wind events were identified several days of advance warning allowing mitigations below PSPS to be taken as appropriate. To determine how well the meteorology models performed quantitatively, Liberty began archiving (in 2021) comparisons of weather station observations and weather forecast data at stations in and around its service territory. To improve the accuracy of its weather forecasting – particularly for wind gust – Liberty intends to analyze this data archive and develop bias correction procedures to improve wind gust forecast accuracy in advance of 2023 fire season. Another enhancement planned for short term implementation is development of subdaily FPI ratings to better account for changes in fire potential throughout the day (current FPI ratings are daily).

2. What were the challenges in quantifying risks and benefits in terms of determining the scope (size and duration) of the PSPS you conducted?

N/A

3. Explain your communication to customers about the cost/benefit analysis you perform to determine whether to utilize protective equipment and device settings or PSPS during a weather event.

Liberty has not communicated to customers about cost/benefit analyses performed to determine whether to utilize protective equipment and device settings or PSPS during a weather event.

4. Explain how you fully incorporated public safety partners in your exercise planning. How many were invited to, and attended each planning meeting? Describe your communication efforts-dates and methods-to solicit participation.

Public Safety Partners were fully integrated into the planning and execution of Liberty exercises in 2022. Communication with Liberty's Public Safety Partners is ongoing throughout the year, and participation was solicited through email invitations to the events which were held virtually. A similar process will be followed in 2023 with the exception that the planning meetings/exercises will be conducted in a "hybrid" environment, or partially virtual and partially in person. Public Safety Partners were invited to and represented at the following planning meetings and exercises:

Date	Topic	Participants
4/7/2022	Exercise Concepts and Objectives Meeting	CPUC, Cal OES, CAL Fire
4/21/2022	Exercise Initial Planning Meeting	CPUC, Cal OES, CAL FIRE, Town of
		Truckee, Nevada County, Placer County,
		Connecting Point, Verizon, T-Mobile,
		AT&T, Tahoe Donner Public Utility
		District
5/12/2022	PSPS Midterm Planning Meeting	CPUC, Cal OES, CAL FIRE, Town of
		Truckee, Placer County, Connecting
		Point, Nevada County, Verizon, T-
		Mobile, Frontier Communications,
		AT&T, Tahoe Donner Public Utility
		District, North Tahoe Fire
6/9/2022	PSPS Final Planning Meeting	CPUC, Cal OES, CAL FIRE, Town of
		Truckee, Placer County, Connecting
		Point, Nevada County, Verizon, T-
		Mobile, Frontier Communications,
		AT&T, Tahoe Donner Public Utility
		District, North Tahoe Fire
6/15/2022	PSPS Tabletop Exercise	CPUC, Cal OES, CAL FIRE, Town of
		Truckee, Placer County, Connecting
		Point, Nevada County, Verizon, T-
		Mobile, Frontier Communications,
		AT&T, Tahoe Donner Public Utility
		District, North Tahoe Fire
6/23/2022	PSPS Functional Exercise	CPUC, Cal OES, CAL FIRE, Town of
		Truckee, Placer County, Connecting

Point, Nevada County, Verizon, T-
Mobile, Frontier Communications,
AT&T, Tahoe Donner Public Utility
District, North Tahoe Fire, Reax
Engineering

5. Recap the lessons learned from all of your de-energization exercises, the resulting action items, their implementation, and observed consequences.

A synopsis of lessons learned from Liberty's de-energization exercises in 2022, the resulting action items, and their implementation and consequences are provided in: "Attachment 3 – POSTR1 Section IV.5."

6. Discuss how you fully implemented the whole community approach into your de-energization exercises.

Liberty continues to successfully integrate public safety partners, community-based organizations, and critical infrastructure into the exercise planning process and the exercises. In addition to planning and exercising, they provide input subsequent to the exercise that is included in the after-action review and exercise documentation. Emergency Management works closely with the Liberty Community Outreach Coordinators to participate in meetings with city, county, and state officials; key CBOs; and its Wildfire Safety Community Advisory Council. This approach allows Emergency Management to be familiar with community partners and their concerns throughout the year

7. Discuss the complaints you received (as documented in POSTR4) and any lessons learned and implementation of changed business practices.

Liberty did not initiate any proactive de-energization events in 2022 and did not receive any complaints regarding PSPS.

8. How did your PSPS notifications, to both customers and public safety partners / local governments perform over the year? What changes will you make to improve performance?

Liberty did not initiate any proactive de-energization events in 2022. Liberty's internal PSPS Table-Top exercises on May 25, 2022, and August 4, 2022, served as key training tools for identifying potential gaps or problems with existing notification plans.

9. How did your Public Safety Specialists and Public Affairs Representatives deconflict and synchronize operational direction given to local government's Office of Emergency Services? What lessons did they learn in 2022 and what corrective actions are planned?

Liberty does not have Public Safety Specialists or Public Affairs Representatives. However, during PSPS events, individuals who are tasked with communication for public safety partners, including local

governments' Office of Emergency Services, assume similar roles. Because Liberty has never executed a PSPS, it has not experienced any instances during which representatives needed to deconflict operational direction to local governments' Office of Emergency Services. In order to help synchronize communication during PSPS events, Liberty's Liaison Officer provides daily situational briefings to Public Safety Partners which includes Office of Emergency Services from local governments. Partners are also given the direct line to the Liaison Officer in the event that questions or concerns require an immediate response.

10. What process did your Public Safety Specialists follow to provide situational awareness and ground truth to your EOC? How did the EOC incorporate their input?

Liberty does not have Public Safety Specialists. Situational awareness is provided primarily by Liberty's fire science consultant, who designed Liberty's PSPS forecasting and monitoring tools. Leading up to a potential event, Liberty's fire science consultant provides weather and model observations directly to the EOC multiple times per day. The Incident Commander utilizes the information for PSPS decision-making. Additionally, Liberty will have operational personnel proactively patrolling power lines leading up to an event. Field staff will report safety concerns to the Operations Section Chief if the observe unsafe conditions.

Attachment 1			
Liberty's Wildfire Messaging Awareness (Wave 1)			
Liberty's Wildfire Messaging Awareness (Wave 1)			
Liberty's Wildfire Messaging Awareness (Wave 1)			





Wildfire Messaging Awareness

Prepared by

Jakob Lahmers - <u>Jakob.Lahmers@mdcresearch.com</u> MDC Research



Objectives & Methodology

The **overall objective** of this research was to measure the public's awareness of messaging related to wildfire preparedness and safety. Specific research objectives include:

- Measure awareness of Liberty Utilities (Liberty) messages related to wildfire preparedness
- Identify recall of specific message topics
- Identify recall of message channels
- Measure recall and understanding of Public Safety Power Shutoff or PSPS
- Evaluate sources customers are most likely to turn to for information about PSPS
- Explore actions taken by customers to prepare for wildfire season
- Measure awareness of Liberty's efforts to reduce the risk of wildfires
- Evaluate PSPS notifications perception

Target Audience

- Liberty residential and business customers in California
- Liberty critical customers

Methodology

- Customers were surveyed at random from Liberty customer records, targeted for either phone or web administration
- Surveys available to customers in English and Spanish
- A total of 324 surveys, including 30 from critical customers, were completed between June 13 and June 29, 2022

Phone: 80 completed surveys

Web: 244 completed surveys



Key Findings

Communications

- **66% are aware of wildfire safety communications**, down from 74% in November 2021.
- Liberty remains the primary source for wildfire preparedness information, and vegetation management and personal preparedness are the most common messages recalled.
- Email remains the most cited channel for wildfire preparedness communication; bill inserts, TV news, direct mail, and social networking make up the next most common tier.
- 67% recall seeing, hearing or reading the phrase "Public Safety Power Shutoff or PSPS," similar to the last wave. TV News (40%) and email (36%) remain the most common sources of PSPS communication.
- 46% say they would first turn to the Liberty website for information about a PSPS event. And 82% understand the following statement about PSPS: "for areas at a higher risk of fast-spreading catastrophic wildfires, the utility will proactively shut off power during extreme and dangerous weather."
- Notifications via text and email are considered most effective forms of communication from Liberty. Larger font is considered the most helpful element of communications that could be incorporated.

Actions Taken

- Similar to last year, 86% have taken action to prevent wildfires or to prepare their home or business for the event of a wildfire. Trimming vegetation around properties remains the most common action taken, followed by creating defensible space.
- 56% are aware of Liberty's efforts to prune vegetation around power lines in higher-risk areas. Recallers are significantly more likely than Non-Recallers to be aware of all of Liberty's efforts.
- 63% are aware they can update their contact information with Liberty, and three quarters of those have done so, in line with last year's findings.
- Similar to November 2021, 40% say they know whether their address is in PSPS area, and 26% are aware of a PSPS map on Liberty's website.

AFN and Critical Customers

- 79% of customers can be considered AFN.
- Of the resources available to the public, customers are most likely to be aware of **LIHEAP**, **special payment arrangements**, **and CARE**; 36% have not investigated any of the resources and 23% report no need.
- Only 4% of AFN customers have heard of AFN Self-Identification.
- Among those reporting that they rely on electricity for medical needs, 45% are aware of additional notices from Liberty.
- 97% of respondents indicated it would not be helpful to receive communications in a language other than English.



Recommendations

- Evaluate the communication strategy. While awareness of wildfire communications remains high, there has been a decline between November 2021 and June 2022.
- Continue the use of email and bill inserts for information about wildfire safety and preparation. Text messages are the most preferred method for communications; however, consider caution about using this channel for anything other than emergencies, otherwise the urgency of messages could be lost over time.
- Consider focusing messages around preparing an emergency readiness plan and emergency kit. Trimming vegetation and creating defensible space are the most common actions taken, and only one in ten have created a readiness plan or emergency kit.
- Evaluate methods of driving customers to the Liberty website. The website is in the second tier of information sources but is perceived to be clear and useful among users. Driving customers to the website should be the first priority, followed by continuing to provide clear and useful information.
- Continue leveraging email and bill inserts, and consider TV news, to educate consumers about PSPS.
 - Evaluate the strategy used to educate those with medical conditions requiring electricity, as over half are not aware of additional notices prior to a PSPS event.
 - Also consider additional effort to educate customers about self-reporting their AFN status and any additional resources available to them.
- Be proactive with PSPS notifications. More than half agree that notifications should be sent if there is any possibility of a PSPS. Few are concerned about false alarms, and most appreciate the extra warning and reminder about preparation.



Wildfire Safety Communications Awareness

• Two thirds have seen or heard communications about wildfire safety in the past year; awareness declined from three quarters in November 2021

Communication Awareness Recallers 66% 74% 59% √ 100

	Recallers (n=213)	Non-Recallers (n=111)
Gender	Male – 48% Female – 48%	Male – 38% Female – 53%
Age	18-54 – 19% 55-64 – 19% 65+ – 58%	18-54 – 34% 55-64 – 23% 65+ – 31%
Median Income	\$108K	\$99K
Home Ownership	Rent – 9% Own – 88%	Rent –15% Own – 73%
Primary Language is not English	11%	13%
Responded they Rely on Electricity for Medical Needs	20%	20%





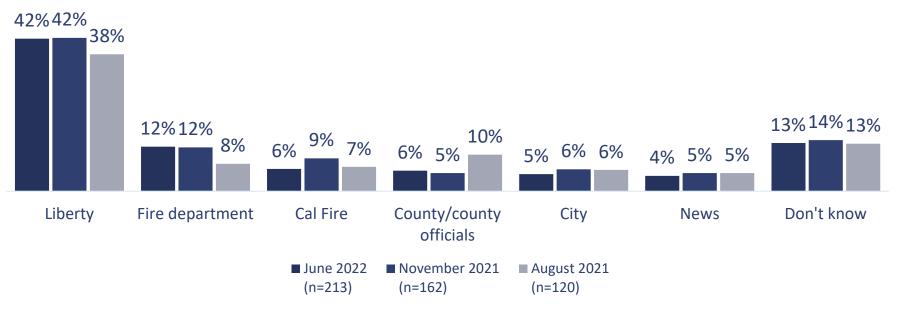
Communication Recall (among those aware of communications)

Sources of Wildfire Preparedness Communications

- Of those aware of communications, four in ten mention Liberty as the source of wildfire preparedness communication, in line with previous waves of the study
- About one in seven (13%) are not aware of the source of communication, consistent with November 2021 (14%)

Wildfire Preparedness Communications Sources

(among those who recall communication)







Wildfire Preparedness Communications Messages

- Of those who recall communications, over half recall messages about vegetation management (56%), followed by personal preparedness (55%)
- Compared to the previous wave, mentions of weather stations have decreased significantly, from 18% to 6%

Communications Messages Recalled (among those who recall communication)			Aug 2021 (n=120)
Vegetation Management	56	% 52%	48%
Personal Preparedness	55	% 56%	59%
Public Safety Power Shutoff	37%	48%	38%
Liberty's Wildfire Mitigation Plan	33%	31%	33%
Notifications & Updating Customer Information	31%	28%	31%
Local Emergency Services – Resources	30%	30%	18%
Local Emergency Services – Support Tools	18%	24%	14%
Medical Needs	18%	20%	18%
California Public Utility Commission designation of high wildfire threat areas	16%	23%	13%
Community Resource Centers available for information and support	15%	18%	13%
System Hardening	10%	15%	12%
Weather Stations	6% 🕂	18%	11%



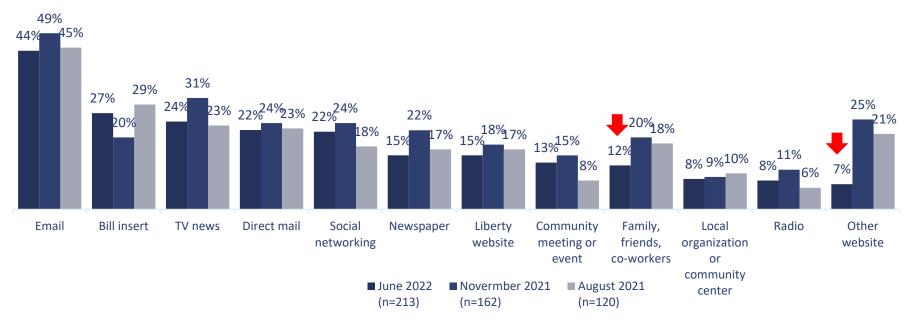


Information Channels for Wildfire Communications

• Email remains the most common channel for wildfire preparedness communication with just under half mentioning it (44%), followed by bill insert (27%), and TV news (24%); significantly fewer mention family, friends co-workers compared to November 2021 (12% vs. 20%)

Information Channels for Wildfire Preparedness Communications

(among those who recall communication)







Information Channels for Wildfire Communications (cont.)

• A handful of "other websites" were mentioned by respondents; CalFire was the most common, mentioned by 3 customers

Other websites include:

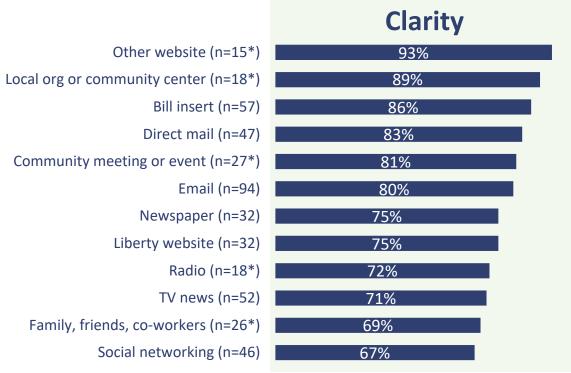
- Alpine Country
- CalFire (3 mentions)
- Dollar Point Association
- El Dorado County
- National Forest Service
- Nextdoor
- North Tahoe Fire District

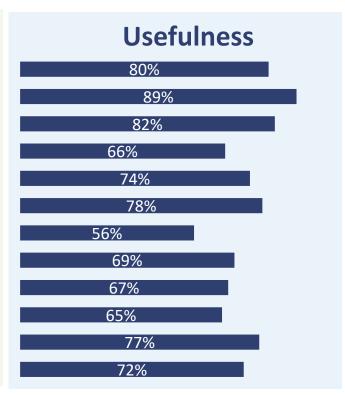
- PG&E
- South Lake Tahoe City
- Tahoe Daily Tribune
- Tahoe Truckee Community Foundation
- Town of Truckee
- Truckee Meadows Fire Protection District
- Washoe Tribe



Information Usefulness and Clarity

• In terms of clarity, other websites are rated the highest; however, in terms of usefulness, local organizations or community centers (89%), bill inserts (82%), and other websites (80%) are rated highest



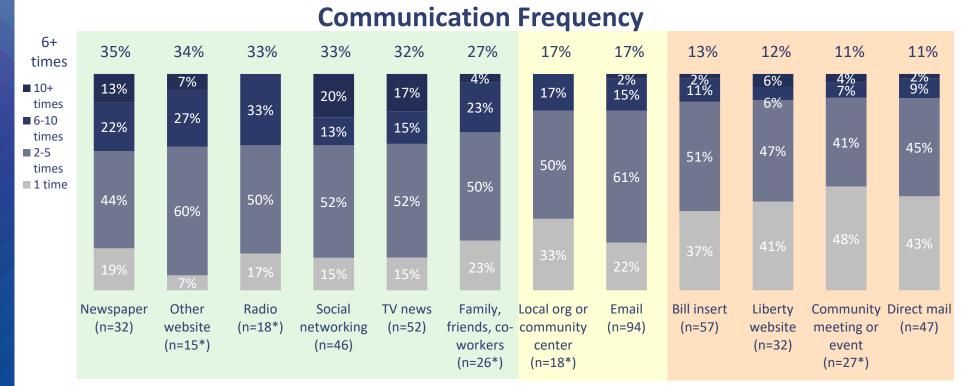




*Small sample size (n<30)

Communication Frequency

• Just over one third say they have seen at least six messages about wildfire preparedness in the newspaper (35%), followed by other websites (34%), radio (33%), social networking (33%), and TV news (32%)



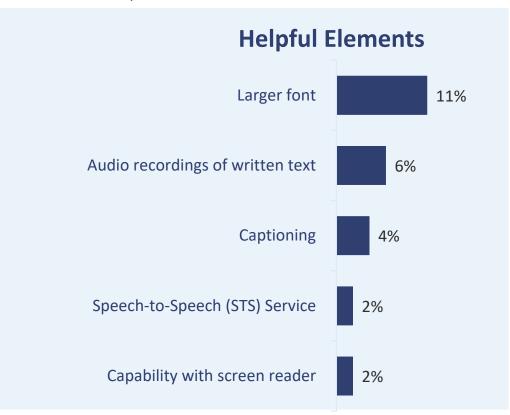


*Small sample size (n<30)

Effective and Helpful Communication

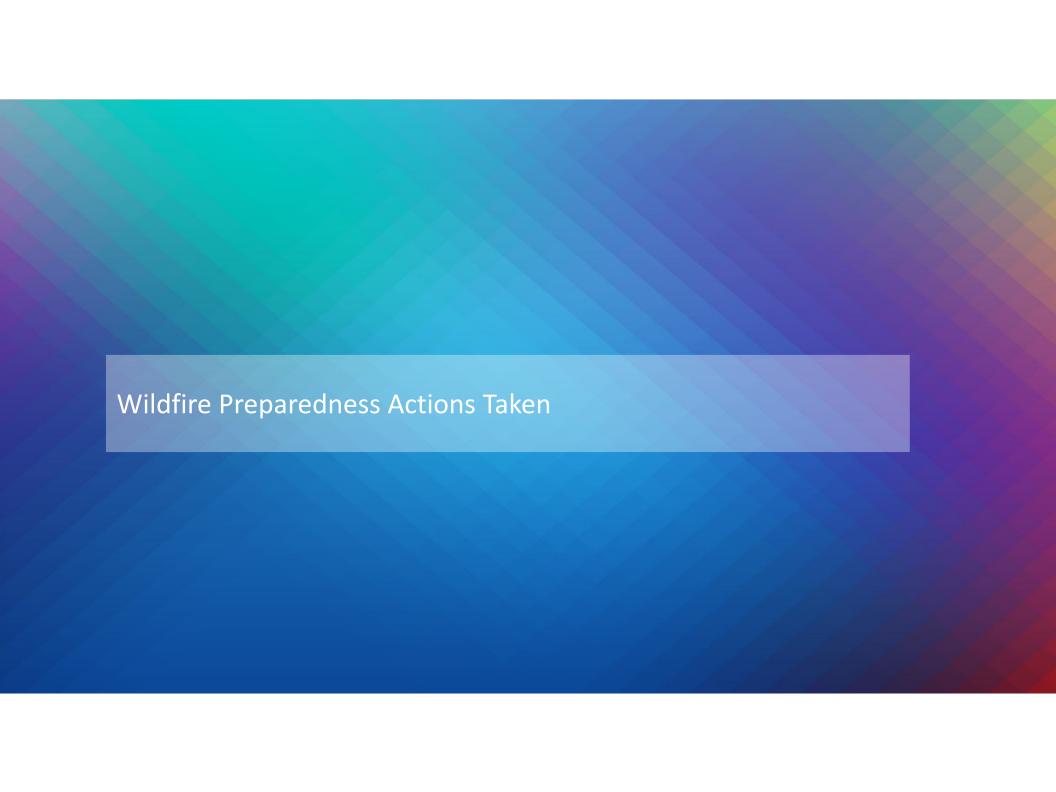
• Notifications via text are considered the most effective form of communication from Liberty (44%) followed by email (30%); larger font was considered the most helpful (11%) element that could be incorporated







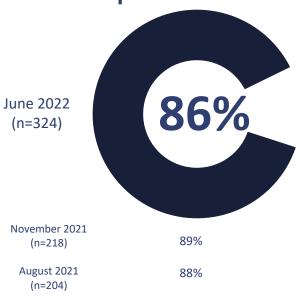
*Small sample size (n<30)



Wildfire Preparedness

- Nearly nine in ten (86%) have taken actions to prevent or prepare their home or business in the event of a wildfire, consistent with previous results (89%)
- Trimming vegetation around their home or property remains the most common action taken, mentioned by 68% of respondents
- The percentage who prepared an emergency readiness plan increased compared with November 2021 (11% vs 5%)

Took Actions to Prevent or Prepare for a wildfire



Actions Taken (among those taking action)	June 2022 (n=280)	November 2021 (n=194)	August 2021 (n=180)
Trimmed vegetation around home or property	68%	67%	71%
Created defensible space	39%	38%	31%
Prepared an emergency readiness plan and contact information	11%	5%	4%
Prepared an emergency kit	8%	12%	6%
Clearing roof/gutter	4% 🛖	1%	



Q6A



Awareness of Liberty's Efforts

- Consistent with previous results, more than half are aware of Liberty pruning vegetation around power lines in higher-risk areas (56%)
- Significant decreases in awareness were noted with enhancing utility corridor access (22% vs 31%), Investing in covered conductors (10% vs 16%), and Installing local weather monitoring points (8% vs 16%)
- Recallers remain significantly more likely to mention all of Liberty's efforts

Awareness of Liberty's Efforts to Reduce Wildfire Risk

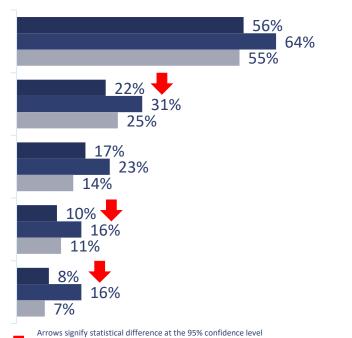
Pruning vegetation around power lines in higher-risk areas

Enhancing utility corridor access and clearance

Performing more frequent inspections by air and ground to ensure facilities are able to operate as expected

Investing in covered conductors, wood pole alternatives, and additional control devices

Installing local weather monitoring points and sharing data collected by local weather and fire teams



compared to the previous wave



■ June 2022

(n=324) ■ November 2021

(n=218)

(n=204)

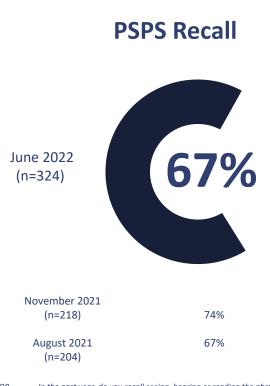
■ August 2021

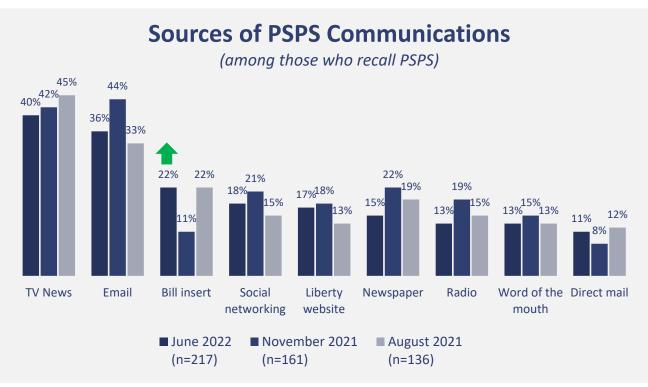




PSPS Awareness

- Two thirds (67%) say they recall seeing, hearing or reading the phrase "Public Safety Power Shutoff or PSPS," in line with previous waves; **Recallers** remain significantly more likely than Non-Recallers to be aware of PSPS (73% vs 55%)
- TV news is the leading source of PSPS communications (40%), followed by email (36%); mentions of bill inserts increased significantly since last wave (22% vs 11%)







Q8A

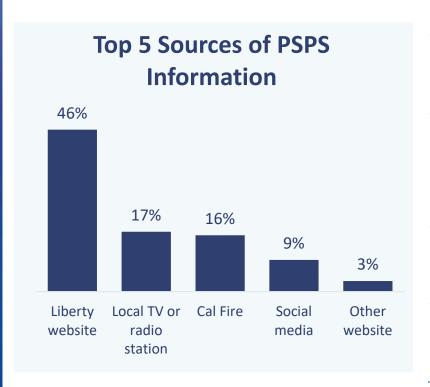




Arrows signify statistical difference at the 95% confidence level compared to the previous wave

PSPS Awareness & Understanding

- The Liberty website remains the most mentioned source for information about PSPS
- Awareness and understanding remains consistent with the previous wave; eight in ten understand that a PSPS means "for areas at a higher risk of fast-spreading catastrophic wildfires, the utility will proactively shut off power during extreme and dangerous weather" (82%)



PSPS Understanding	June 2022 (n=217)	November 2021 (n=161)	August 2021 (n=136)
For areas at a higher risk of fast-spreading catastrophic wildfires, the utility will proactively shut off power during extreme and dangerous weather.	82%	82%	79%
Before considering a Public Safety Power Shutoff the utility assesses several factors: dry trees and other fuel, winds, extremely low humidity, weather conditions, population density, real-time on-the-ground observations and input from local public safety and health agencies.	63%	65%	71%
The likelihood of a Public Safety Power Shutoff is reduced when the utility takes steps to harden the electric grid.	43%	43%	46%
A Public Safety Power Shutoff is a last resort by the utility in an effort to prevent a fast-moving, hard to fight wildfire to help ensure customer and community safety.	42%	52%	58%
Skinterfa (n. 247, Beauty Book) Arrows signify statistical difference at the	95%		

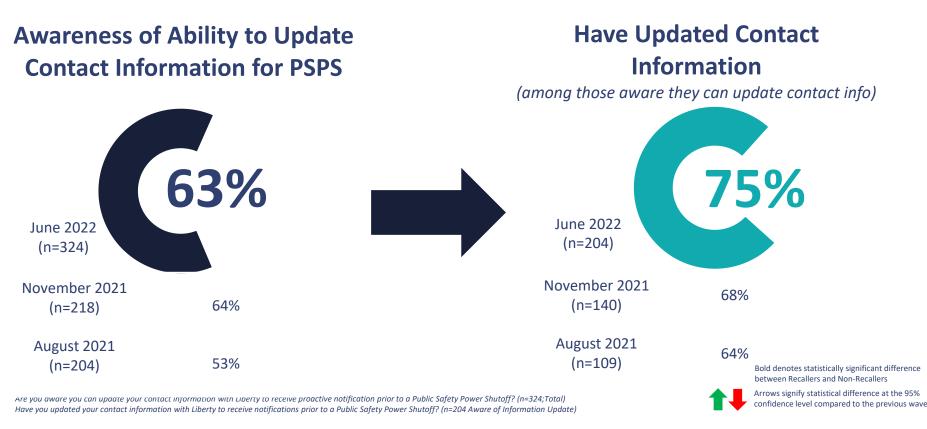




Q10

Contact Information for PSPS

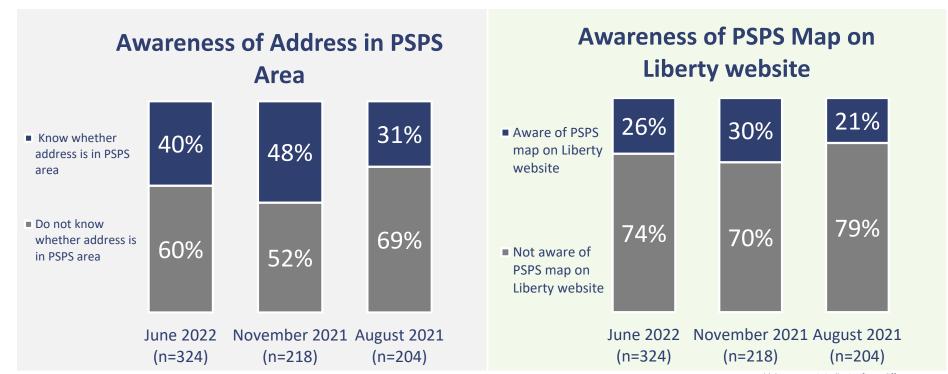
- Just under two thirds (63%) are aware they can update their contact information with Liberty; awareness among **Recallers** is significantly higher than among Non-Recallers (**70%** vs 49%)
- Three quarters (75%) of those aware they can update their information have done so





Awareness of PSPS Location Status

• Two out of five know whether their address is in a PSPS area (40%); awareness remains higher among **Recallers** than Non-Recallers (48% vs 25%)





Q13

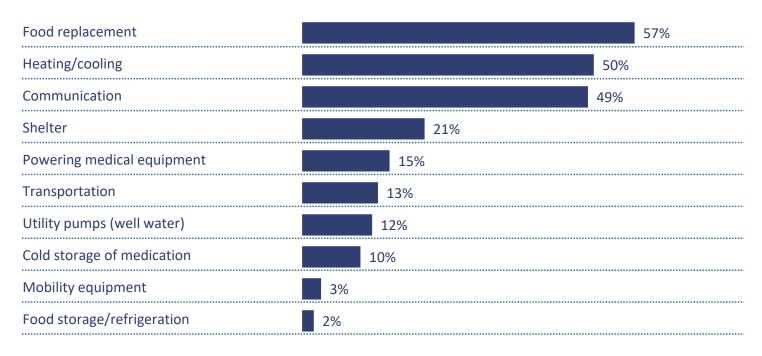
Bold denotes statistically significant difference between Recallers and Non-Recallers



Concerns about Extended Outage

• The largest concerns and perceived challenges in the event of an extended power outage include food replacement (57%), heating/cooling (50%), and communication (49%)

Concerns or Challenges of an Extended Power Outage





Medical Needs and Language Preferences

One in five (20%) responded that they rely on electricity for medical needs

Among **critical customers** the percentage is significantly higher than randomly selected customers (80% vs 20%)

Nearly half (45%) of those relying on electricity for medical needs are aware Liberty provides additional notices prior to a PSPS event.

Approximately one in ten (11%), indicate that another language other than English is primarily spoken; English remains preferred for communications for nearly all respondents (97%)

Two percent mentioned Spanish as their preferred language

All but ten respondents (97%) stated it would not be helpful for them or somebody in their household to receive communications in another language



Does anyone in your home or business rely on electricity for medical needs/equipment? (n=324; Total)

Q14A Are you aware that Liberty provides additional notices prior to a Public Safety Power Shutoff to households that have medical needs/equipment? (n=65; Rely on electricity for medical needs) Q15

Is your primary language other than English? (n=218; Total)

Would it be helpful for you or anyone else in your household to receive communications in another language? (n=324; Total)

What is your preferred language to receive communications? (n=324, Total)



Outreach and Engagement Satisfaction

- · Customers remain generally satisfied with the outreach and engagement they receive
- Findings are in line with results from November 2021

				Top-	3-Вох
Outreach and Engag				November 2021 (n=218)	August 2021 (n=204)
Availability of resources in your community	25%	36%	39%	40%	33%
What to expect in the event of a PSPS	28%	34%	38%	41%	33%
Where to find information to help you stay safe	28%	35%	37%	35%	29%
Amount of information and outreach you received	27%	37%	36%	41%	34%
What the utility does to mitigate wildfire risk	26%	38%	36%	39%	32%
In preparing you to act in the event of a wildfire	30%	37%	32%	35%	28%
■ Diss	satisfied (1-4)	■ 5-7	■ Satisfied (8-10)	Arrows signify statistica confidence level compa Bold denotes statistically	



between Recallers and Non-Recallers

PSPS Notifications

- On average, customers indicate receiving 1.2 PSPS notifications and experiencing 0.5 PSPS outages
- Just over half (54%) say that notifications should be sent if there is any possibility of a PSPS
- One third who have received more notifications than PSPS events said that "false alarms" didn't affect them, and one in ten mention being more prepared and appreciating notifications

PSPS Notifications None 23% Don't know 55% June 2022 (n=324)

PSPS Notifications Perception	June 2021 (n=324)
Notifications should be sent if there is any possibility of a PSPS	54%
Notifications should only be sent if there is a high likelihood of a PSPS	35%
Notifications should only be sent if a PSPS is certain to occur	12%
"Folso Alexes" Improct	

"False Alarms" Impact

"There is always anxiety, but I would rather have time to prepare and need it than have it happen and be unprepared."

"It put our household on a heightened state of alert and preparation, which I believe was beneficial." "I would rather know of the possibility, no matter how slight, so I can plan accordingly."

"Time allocated in packing, travel and preparedness was unnecessary, but still grateful to have the alert and warning."



QOSAT2 How many Public Safety Power Shutoff (PSPS) notifications have you received in the past year? (n=324; Total)

QOSAT4 Which of the following statements best describes how you feel about Public Safety Power Shutoff (PSPS) notifications? (n=324; Total)

QOSAT5 In what ways did "false alarm" Public Safety Power Shutoff (PSPS) notifications, where you received a notification but did not have a PSPS, affect you, personally? (n=38; Received more notifications than events)

PSPS Experience

• One quarter of survey participants report experiencing a PSPS event in the past year.



Among those who report experiencing a PSPS event...

- 61% felt they received adequate notification and information to prepare for the event
- 38% are aware of Community Resource Centers set up during PSPS; not a single survey participants visited a Community Resource Center during an event
- Only one participant (~1% of those reporting experiencing PSPS)
 engaged with a CBO or resource networks specifically the Red
 Cross; this participant reported engaging in-person, 3+ days into the
 outage



Did you experience a Public Safety Power Shutoff (PSPS) this year? (n=324;Total)

Did you receive adequate notification and information to prepare for the Public Safety Power Shutoff? (n=85; Report experiencing a PSPS event)

Are you aware of Community Resource Centers set up during the Public Safety Power Shutoff? (n=85; Report experiencing a PSPS event)

PS1D Did you visit a Community Resource Center? (n=32; Aware of Community Resource Centers)

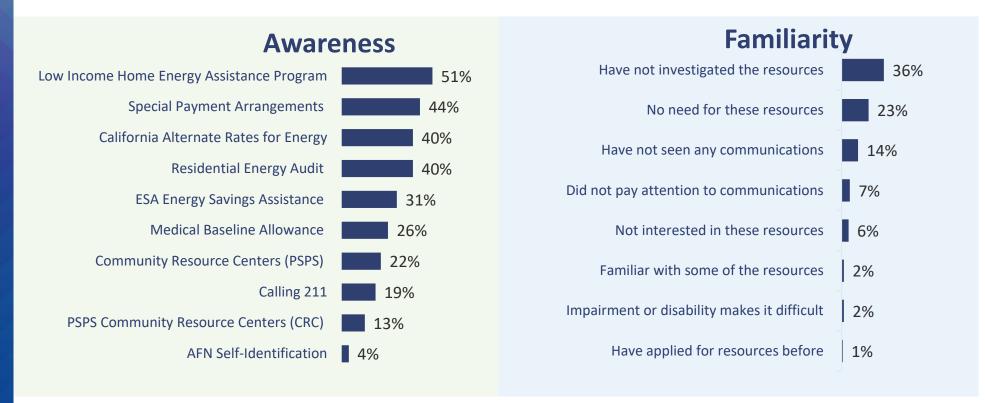
During the power outage, did you engage with any community-based organizations (CBOs) or resource networks to assist in meeting your needs with food replacement, transportation, translation services, etc.? (n=85; Report experiencing a PSPS event)
What local Community Based Organizations (CBOs) or resource networks did you engage with? (n=1; Engaged CBO/resource networks)

How did you engage with the CBO or resource networks you mentioned? (n=1; Engaged CBO/resource networks)

At what point during the outage did you engage the CBOs or resource networks? (n=1; Engaged CBO/resource networks)

Awareness and Familiarity of Resources

- Of the resources available to the public, more than half indicated they were aware of the Low-Income Home Energy Assistance Program (51%), followed by Special Payment Arrangement (44%) and California Alternative Rates (40%)
- Six in ten report they either have not investigated the resources or have no need



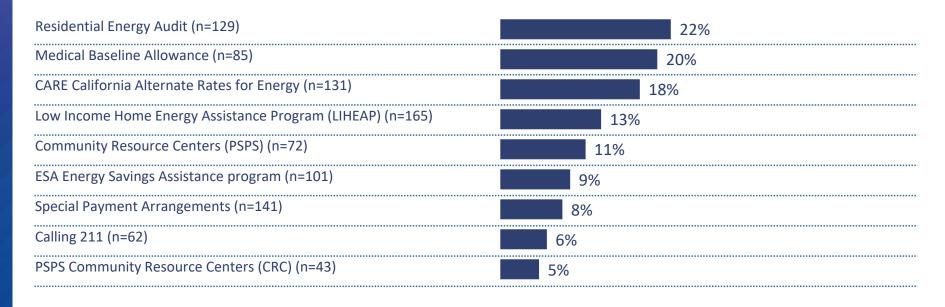


Resources Used

• Of those who are aware of the resources available, Residential Energy Audit, Medical Baseline Allowance, and CARE are the most frequently used

Resources used

(among those who are aware)

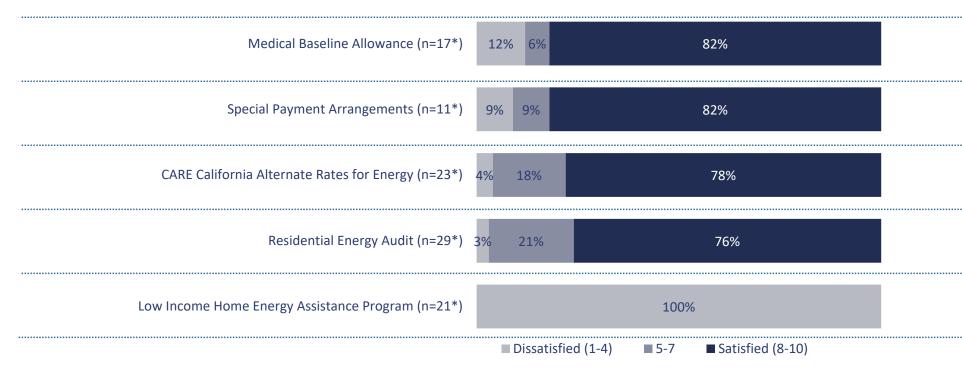




Satisfaction of Resources Used

- Customers using Medical Baseline Allowance, Special Payment Arrangements, CARE, and Residential Energy Audit are highly satisfied
- All using LIHEAP are dissatisfied, giving 1-4 ratings

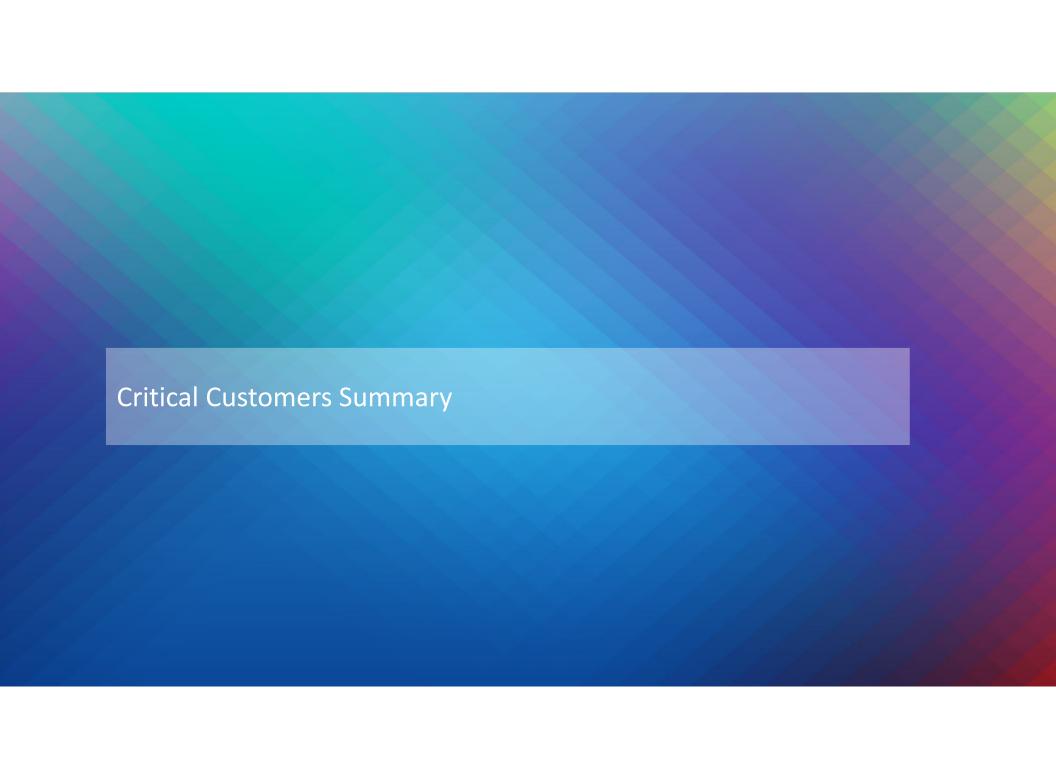
Resource Satisfaction





On a scale of 1 to 10, with 1 being not at all satisfied and 10 being very satisfied, how satisfied are you with the resources you've used in the past:

*Small sample size (n<30)



Key Metrics: Random vs Critical Customers

	Random Customer (n=294)	Critical Customer (n=30)
Aware of Wildfire Safety Communications	66%	67%
Aware of Communications from Liberty (among those aware)	44%	20%
Took Action to Prevent or Prepare for a Wildfire	87%	77%
Recall PSPS	67%	70%
Would Turn to Liberty Website for PSPS Info	46%	38%
Aware of Ability to Update Contact Info for PSPS	62%	73%
Know if Address is in PSPS Area	39%	53%
Satisfied with Availability of Resources in Community for Wildfire Safety Info	38%	47%
Aware of Additional PSPS Notices for Those with Medical Need (among those with medical need)	27%	75%
Aware of AFN Self-Identification	4%	3%



*Caution small sample size

Bold denotes statistically significant difference between Random and Critical Customers

Demographic Profiles: Random vs Critical Customers

	Random Customer (n=294)	Critical Customer (n=30)
Gender	Male – 46% Female – 48%	Male – 33% Female – 67%
Age	18-54 – 24% 55-64 – 21% 65+ – 48%	18-54 – 27% 55-64 – 17% 65+ –57%
Median Income	\$117K	31K
Home Ownership	Rent – 10% Own – 84%	Rent – 23% Own – 77%
Primary Language is not English	11%	13%
Responded they Rely on Electricity for Medical Needs	14%	80%



*Caution small sample size

Bold denotes statistically significant difference between Random and Critical Customers

Key Metrics: AFN vs. Non-AFN

	AFN Customer (n=256)	Non-AFN Customer (n=68)
Aware of Wildfire Safety Communications	68%	56%
Aware of Communications from Liberty (among those aware)	41%	47%
Took Action to Prevent or Prepare for a Wildfire	85%	91%
Recall PSPS	65%	74%
Would Turn to Liberty Website for PSPS Info	44%	50%
Aware of Ability to Update Contact Info for PSPS	63%	62%
Know if Address is in PSPS Area	42%	34%
Satisfied with Availability of Resources in Community for Wildfire Safety Info	41%	32%
Aware of Additional PSPS Notices for Those with Medical Need (among those with medical need)	45%	
Aware of AFN Self-Identification	4%	7%



*Caution small sample size

Bold denotes statistically significant difference
between Random and Critical Customers

Demographic Profiles: AFN vs. Non-AFN

	AFN Customer (n=256)	Non-AFN Customer (n=68)
Condon	Male – 47%	Male – 35%
Gender	Female – 49%	Female – 53%
	18-54 – 16%	18-54 –56%
Age	55-64 – 17%	55-64 – 32 %
	65+ - 62%	65+ –0%
Median Income	\$92K	\$160K
Haman Oranganahin	Rent – 12%	Rent – 10%
Home Ownership	Own – 83%	Own – 82%
Primary Language is not English	14%	
Responded they Rely on Electricity for Medical Needs	25%	



*Caution small sample size

Bold denotes statistically significant difference between Random and Critical Customers



CBO Interviews

Four in-depth interviews were conducted with community-based organizations (CBOs) in the Liberty territory.

- Interviews lasted 30 minutes and were conducted using Microsoft Teams
- Participants were paid \$100 as a "thank you" for their time and feedback
- All interviews were recorded
- Interviews were scheduled using a "warm handoff" from Liberty





CBO Interviews

Current Communications

- Recall of communications or information from Liberty about fire safety or PSPS preparedness are limited; most only recall standard customer communications related to wildfire safety or PSPS or mention being overlooked as resources since it's not generally within the scope of their business'
- CBOs do engage with Liberty for support with financial assistance, and general community engagement, but not much in terms of wildfire awareness and preparation
- Many report that wildfire safety, preparedness, and PSPS communications are outside the scope of their charter; they would be willing to help spread the word, but typically do not have the available resources to do so without further support
- Social media was commonly mentioned as way to reach the community, along with email, or direct outreach by Liberty; there is an opportunity for them to spread the word through normal interactions with their client base within the community, such as holding educational events
- Consistent with the previous wave, outreach through public school systems is another way they engage with the community, and suggest that it could be beneficial for Liberty to take advantage of that resource

Spreading the Word

- CBOs are willing to help spread the word about wildfire preparedness, safety, and PSPS events, if provided the necessary resources
 - They are willing to help by holding events, handing out flyers, pointing customers to online resources, sharing information via social media, or handing out printed materials
 - Most serve communities particularly vulnerable to PSPS events (such as food insecure, elderly, those with medical conditions, homeless, and victims of domestic violence), and they are willing to help share information and resources during typical interactions with the community
- English and Spanish are the primary languages required
 - English is most common, but there is a significant Spanishspeaking population in the community
 - Materials need to be reviewed to ensure they are culturally relevant
 - An example included English messaging indicated a "voluntary evacuation" while the Spanish version declared a "mandatory evacuation"
 - Additionally, written communications should be simple and easy to understand for people with all levels of reading comprehension



CBO Interviews

Useful Information/Resources

- The most effective ways Liberty can support CBOs in preparing the community include:
 - Sharing/creating content that can be shared on social media, either by linking to Liberty or providing content for CBOs to post
 - Sharing accurate information about PSPS events, and providing timely updates as circumstances change
 - Identifying those with medical needs and providing them information to ensure they are able to adequately prepare for a PSPS event or evacuation
 - Providing educational resources about how to prepare for a fire/outage, including evacuation plans (e.g., where to go), prepping a "go" bag, and information about shelters
 - Providing generators and battery backup supplies for temporary shelters (e.g., in schools) that do not have these resources
 - It is important to help people understand where to go in the event of an evacuation or outage, and to make them aware of resources if they do not have transportation or are reliant on electricity for medical needs
- CBOs indicate they can proactively reach out to the community using social media, but they are best equipped to provide links to agencies that are able to provide direct support

PSPS Events

- One of the primary pain points around PSPS events is the constantly changing nature of the situation
 - CBOs perceive inconsistent or inaccurate information about PSPS events, as there are warnings but no events, etc.
 - · Provide as much early notice as possible
 - CBOs state that they would prefer to receive as much communication as possible during the fire season, and if there is any possibility of an event; during the off-season, communication frequency should be monthly or quarterly
 - After the recent fire season, the community is highly concerned about the risk, and generally understanding about the dynamic nature of PSPS and the inconveniences associated
- Specific information about how to prepare for an outage/PSPS event is most useful/relevant
 - General fire safety information is least impactful, as other agencies are already providing that information
 - Information most useful in advance of a PSPS event includes evacuation plans and the content required for a "go" bag
 - Special attention should be paid to those with medical needs and limited transportation options
- In the event of an evacuation, CBOs stress the need for food, water, blankets, and chargers that can be distributed at a shelter, and backup power for temporary shelters





Respondent Profiles

Gender	Total (n=324)	Recallers (n=213)	Non- Recallers (n=111)
Male	44%	48%	38%
Female	50%	48%	53%
Age			
18 to 24			
25 to 34	4%	1%	9%
35 to 44	10%	8%	13%
45 to 54	11%	10%	13%
55 to 64	20%	19%	23%
65 or over	49%	58%	31%
Prefer not to say	6%	4%	12%

Renter/Homeowner	Total (n=324)	Recallers (n=213)	Non- Recallers (n=111)
Own	83%	88%	73%
Rent	11%	9%	15%
Prefer not to say	5%	2%	9%
Household Income			
Less than \$20,000	5%	5%	5%
\$20,000 to \$39,999	9%	9%	8%
\$40,000 to \$59,999	5%	5%	5%
\$60,000 to \$89,999	10%	10%	11%
\$90,000 to \$129,999	10%	11%	8%
\$130,000 to \$199,999	13%	14%	11%
\$200,000 or more	14%	14%	14%
Prefer not to say	34%	33%	37%



What is your age category? (n=324; Total)

Do you own or rent your home? (n=324; Total)

Which of the following best describes your annual household income? (n=324; Total)

Respondent Profiles – AFN Criteria

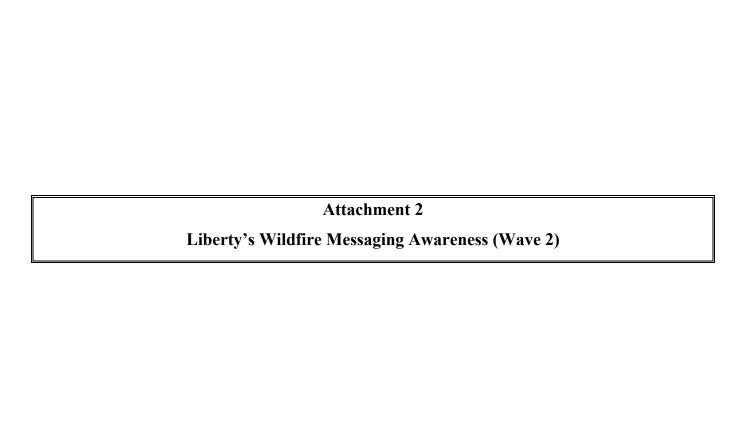
	Total (n=324)	Recallers (n=213)	Non-Recallers (n=111)
AFN (NET)	79%	82%	73%
Age 65+	49%	58%	31%
<\$40K income	14%	14%	14%
Chronic conditions or injuries	18%	19%	16%
Physical, developmental, or intellectual disability	11%	12%	10%
Limited access to transportation	9%	10%	8%
Non-English language needs	12%	11%	14%
Medical need	20%	20%	20%



A11

Q15 Is a language other than English primarily spoken in your household? (n=324 Total)
Q18 What is your age category? (n=324 Total)

Do any of the following apply to you or anyone in your household? (n=324 Total)
Which of the following best describes your annual household income? (n=324 Total))





Wildfire Messaging Awareness

Prepared by

MDC Research
Jakob Lahmers - <u>Jakob.Lahmers@mdcresearch.com</u>





Objectives & Methodology

The **overall objective** of this research was to measure the public's awareness of messaging related to wildfire preparedness and safety. Specific research objectives include:

- Measure awareness of Liberty Utilities (Liberty) messages related to wildfire preparedness
- Identify recall of specific message topics
- Identify recall of message channels
- Measure recall and understanding of Public Safety Power Shutoff or PSPS
- Evaluate sources customers are most likely to turn to for information about PSPS
- Explore actions taken by customers to prepare for wildfire season
- Measure awareness of Liberty's efforts to reduce the risk of wildfires
- Evaluate PSPS notifications perception

Target Audience

- Liberty residential and business customers in California
- Liberty critical customers

Methodology

- Customers were surveyed at random from Liberty customer records, targeted for either phone or web administration
- Surveys available to customers in English and Spanish
- A total of 325 surveys, including 30 from critical customers, were completed between November 3 and November 19
 - Phone: 80 completed surveys
 - ☐ Web: 245 completed surveys



Key Findings

Communications

- **67% are aware of wildfire safety communications**, consistent with 66% in June 2022
- Liberty remains the primary source for wildfire preparedness information, and vegetation management and personal preparedness are the most common messages recalled.
- **Email** remains the most cited channel for wildfire preparedness communication; bill inserts, TV news, direct mail, and social media make up the next most common tier.
- The Liberty website is considered the clearest and most useful resource for information about wildfire preparedness.
- 67% recall seeing, hearing or reading the phrase "Public Safety Power Shutoff or PSPS," as was seen in the last wave. TV News (44%) and email (30%) remain the most common sources of PSPS communication, and mention of social media increased significantly from 18% in June to 26% in November.
- 38% say they would first turn to the Liberty website for information about a PSPS event. And 87% understand the following statement about PSPS: "for areas at a higher risk of fast-spreading catastrophic wildfires, the utility will proactively shut off power during extreme and dangerous weather."
- Notifications via text and email are considered most effective forms of communication from Liberty. Larger font is considered the most helpful element of communications that could be incorporated.

Actions Taken

- Similar to June 2022, 88% have taken action to prevent wildfires or to prepare their home or business for the event of a wildfire. Trimming vegetation around properties remains the most common action taken, followed by creating defensible space.
- 60% are aware of Liberty's efforts to prune vegetation around power lines in higher-risk areas. Recallers are significantly more likely than Non-Recallers to be aware of the majority of Liberty's efforts.
- Recall of Liberty's efforts to enhance utility corridor access and clearance, performing frequent inspections, investing in covered conductors, and installing local weather monitoring points have all increased since June.
- 60% are aware they can update their contact information with Liberty, and three quarters of those have done so, in line with June 2022 findings.
- Similar to June 2022, 37% say they know whether their address is in PSPS area, and 28% are aware of a PSPS map on Liberty's website.

AFN and Critical Customers

- 81% of customers can be considered AFN.
- Of the resources available to the public, customers are most likely to be aware of LIHEAP, special payment arrangements, and CARE; 36% have not investigated any of the resources and 22% report no need.
- Only 2% of AFN customers have heard of AFN Self-Identification.
- Among those reporting that they rely on electricity for medical needs, 41% are aware of additional notices from Liberty.
- 97% of respondents indicated it would not be helpful to receive communications in a language other than English.



Recommendations

Continue efforts to promote actions taken by Liberty to mitigate the risk of wildfires and PSPS.

- Recall of messages around system hardening, enhanced utility corridor access, frequent inspections, investments, and weather monitoring have all increased since June 2022, and are consistent with November 2021 findings.
- Qualitative research suggests it important to demonstrate the steps Liberty is taking to prevent fires and PSPS, and to position PSPS as a last resort, and only used for the most dangerous conditions.

Leverage emails and bill inserts to drive customers to the Liberty website. The website is considered most clear and useful, but email and bill inserts remain the most recalled communication channels, and they can direct customers to the website for additional information or details.

Remind customers of the importance of having an emergency readiness plan and emergency kit. Only 10% of customers have prepared an emergency kit, and the percentage who prepared an emergency readiness plan declined from 11% in June to 2% in November.

PSPS recall and understanding remain strong, and consistent with past results. TV news and email remain the primary sources of information about PSPS, and recall of social media has increased significantly since June.

- Qualitative research suggest local Facebook Groups are commonly used in the communities served by Liberty and present an opportunity for education and another channel for communications about PSPS events if needed.
- Qualitative research also suggests educational content about PSPS can be pushed out throughout the year if not done too frequently (e.g., quarterly but not monthly), but late April/early May should be prioritized to coincide with fire prevention week and the traditional start of the higher risk fire season.

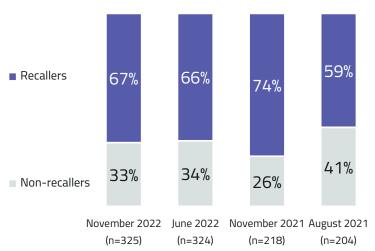
Be proactive with PSPS notifications. More than half agree that notifications should be sent if there is any possibility of a PSPS. As conditions change, keep customers informed leading up to the predicted event.



Wildfire Safety Communications Awareness

• Just over two thirds have seen or heard communications about wildfire safety in the past year, consistent with June 2022

Communication Awareness



Have you seen or heard any communications about wildfire safety in the past year? (n=325; Total)

	Recallers (n=218)	Non-Recallers (n=107)
Gender	Male – 44% Female – 45%	Male – 49% Female – 47%
Age	18-54 – 23% 55-64 – 20% 65+ – 51%	18-54 – 33% 55-64 – 17% 65+ – 46%
Median Income	\$101K	\$92K
Home Ownership	Rent – 12% Own – 83%	Rent –18% Own – 79%
Primary Language is not English	15%	11%
Responded they Rely on Electricity for Medical Needs	17%	18%



Arrows signify statistical difference at the 95% confidence level compared to the previous wave Bold denotes statistically significant difference between Recallers and Non-Recallers

Communication Recall

(among those aware of communications)

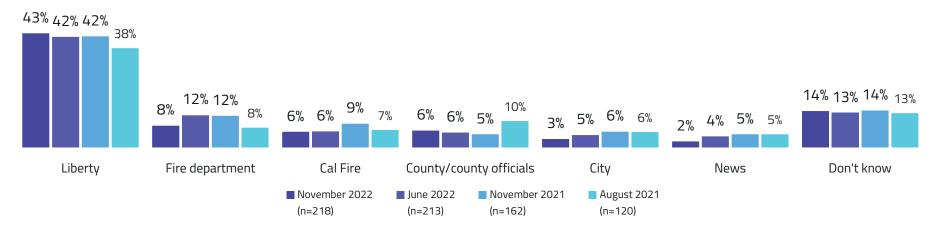


Sources of Wildfire Preparedness Communications

- Of those aware of communications, four in ten mention Liberty as the source of wildfire preparedness communication, in line with previous waves of the study
- One in seven (14%) are not aware of the source of communication, consistent with June 2022 (13%)

Wildfire Preparedness Communications Sources

(among those who recall communication)



Who was the communication about wildfire preparedness from? (n=218; Aware of Communication)

Arrows signify statistical difference at the 95% confidence level compared to the previous wave



Wildfire Preparedness Communications Messages

- Of those who recall communications, almost three in five recall messages about vegetation management (59%), followed by personal preparedness (56%)
- Compared to the previous wave, mentions of system hardening have increased significantly, from 10% to 20%

Communications Messages Recalled (among those who recall communication)		June 2022 (n=213)	Nov 2021 (n=162)	Aug 2021 (n=120)
Vegetation Management	59%	56%	52%	48%
Personal Preparedness	56%	55%	56%	59%
Public Safety Power Shutoff	41%	37%	48%	38%
Liberty's Wildfire Mitigation Plan	40%	33%	31%	33%
Notifications & Updating Customer Information	28%	31%	28%	31%
Local Emergency Services – Resources	24%	30%	30%	18%
Local Emergency Services – Support Tools	21%	18%	24%	14%
California Public Utility Commission designation of high wildfire threat areas	21%	16%	23%	13%
System Hardening	20% 👚	10%	15%	12%
Community Resource Centers available for information and support	19%	15%	18%	13%
Medical Needs	17%	18%	20%	18%
Enhanced Wildfire Safety Settings	17%	Ado	led November 2	022
Weather Stations	9%	6%	18%	11%

What were the messages of the communications you saw or heard about wildfire preparedness? (n=218; Aware of Communication)

Arrows signify statistical difference at the 95% confidence level compared to the previous wave

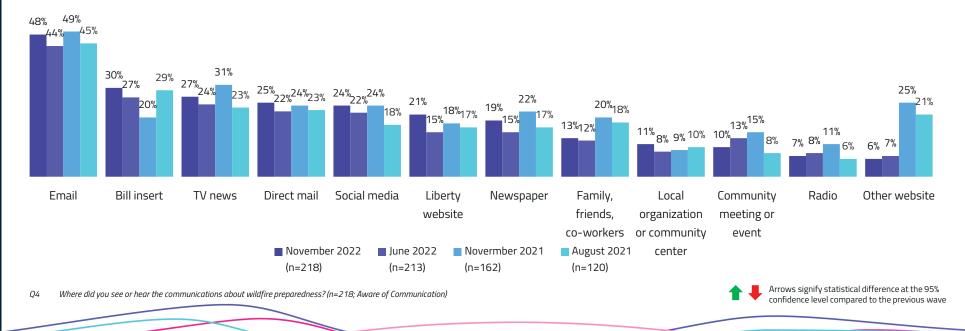


Information Channels for Wildfire Communications

• Email remains the most common channel for wildfire preparedness communication with just under half mentioning it (48%), followed by bill insert (30%), and TV news (27%); mentions of all communication channels remain statistically consistent with June 2022

Information Channels for Wildfire Preparedness Communications

(among those who recall communication)





Information Channels for Wildfire Communications (cont.)

• A handful of "other websites" were mentioned by respondents

Other websites include:

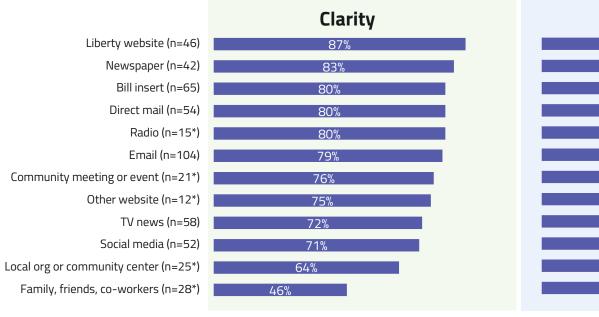
- Dollar Point Association
- Eastern Sierra Fire & Ice
- Kilo
- National Fire Protection Association
- North Tahoe Fire District

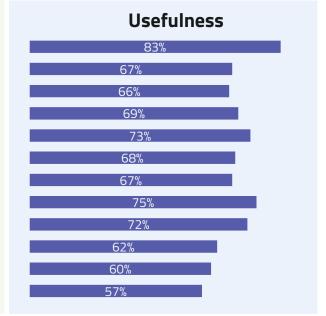
- South Tahoe Now
- Tahoe Living With Fire
- Truckee Donner Public Utility District
- Town of Truckee
- Yahoo



Information Usefulness and Clarity

- In terms of clarity, the Liberty website is rated the highest (87%) followed by newspapers (83%)
- In terms of usefulness, the Liberty website is rated the highest (83%) followed by other websites (75%)





Q4A How useful was the information about wildfire preparedness from each of these sources? (n=218; Aware of Communication)
 Q4B How would you rate the clarity of the information about wildfire preparedness from each of these sources? (n=218; Aware of Communication)

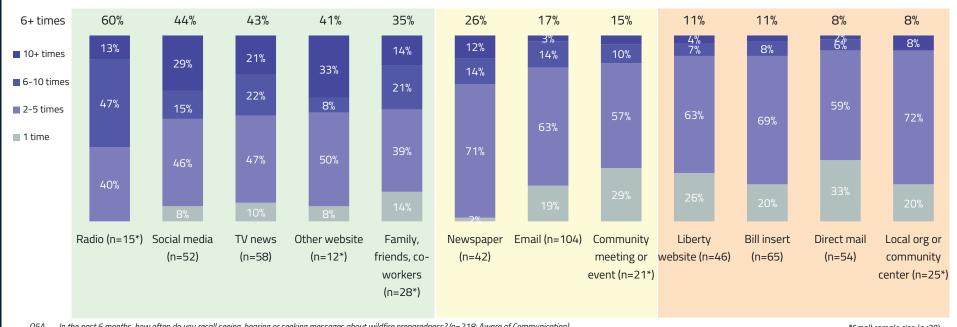
*Small sample size (n<30)



Communication Frequency

• Just over three in five say they have seen at least six messages about wildfire preparedness on the radio (60%), followed by social media (44%), TV news (43%), other websites (41%), and family, friends, co-workers (35%)

Communication Frequency



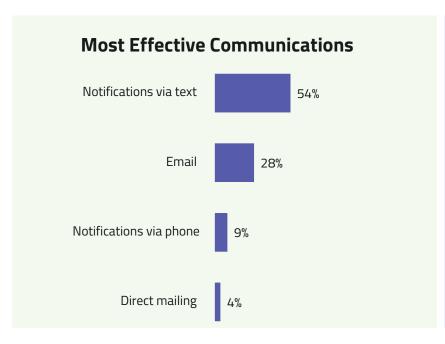
Q5A In the past 6 months, how often do you recall seeing, hearing or seeking messages about wildfire preparedness? (n=218; Aware of Communication)

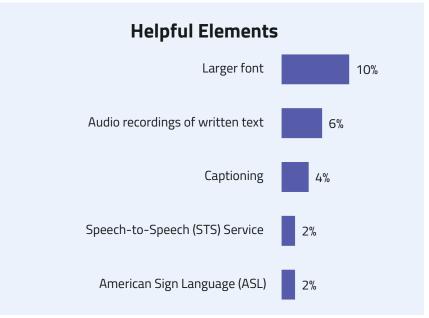
*Small sample size (n<30)



Effective and Helpful Communication

• Notifications via text are considered the most effective form of communication from Liberty (54%) followed by email (28%); larger font was considered the most helpful (10%) element that could be incorporated





What method of communication from Liberty do you find most effective? (n=325)

A12 Regardless of how communications from Liberty are received, which, if any, of the following would be helpful for you? (n=325)

Wildfire Preparedness Actions Taken



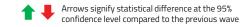
Wildfire Preparedness

- Nearly nine in ten (88%) have taken actions to prevent or prepare their home or business in the event of a wildfire, consistent with previous results (86%)
- Trimming vegetation around their home or property remains the most common action taken, mentioned by 68% of respondents
- The percentage who prepared an emergency readiness plan decreased compared with June 2022 (2% vs 11%)

Took Actions to Prevent or Prepare for a wildfire 88% June 2022 (n=280) 86% November 2021 (n=218) 89% August 2021 (n=204) 88%

November 2022 (n=286)	June 2022 (n=280)	November 2021 (n=194)	August 2021 (n=180)
68%	68%	67%	71%
43%	39%	38%	31%
10%	8%	12%	6%
4%	4%	1%	
2% 🖶	11%	5%	4%
	2022 (n=286) 68% 43% 10%	2022 (n=286) (n=280) 68% 68% 43% 39% 10% 8%	2022 (n=286) 2022 (n=280) 2021 (n=194) 68% 68% 67% 43% 39% 38% 10% 8% 12% 4% 4% 1%

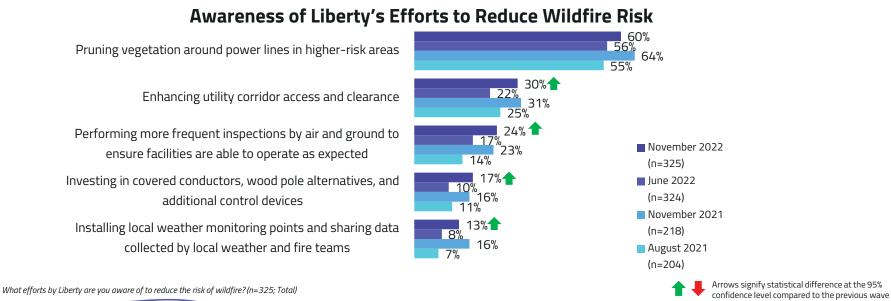
Q6 In the past year, have you taken any actions to prevent or prepare your home or business in the event of a wildfire? (n=325; Total)
Q6A What actions have you taken in your home or business to prevent or prepare in the event of a wildfire? (n=286; Took actions)





Awareness of Liberty's Efforts

- Consistent with previous results, more than half are aware of Liberty pruning vegetation around power lines in higher-risk areas (60%)
- Significant increases in awareness were noted with enhancing utility corridor access (30% vs 22%), performing more frequent air inspections (24% vs 17%) investing in covered conductors (17% vs 10%), and Installing local weather monitoring points (13%) vs 8%)
- **Recallers** remain significantly more likely to mention the majority of Liberty's efforts



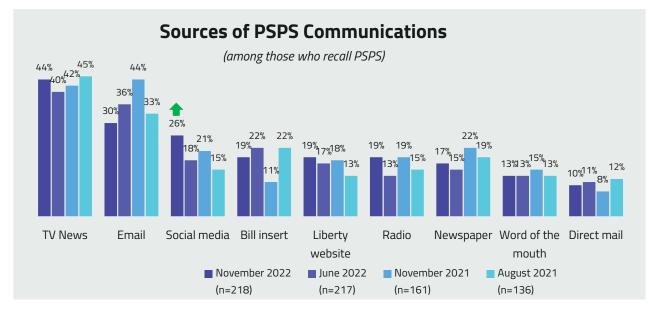




PSPS Awareness

- Two thirds (67%) say they recall seeing, hearing or reading the phrase "Public Safety Power Shutoff or PSPS," in line with previous waves; **Recallers** remain significantly more likely than Non-Recallers to be aware of PSPS (78% vs 46%)
- TV news is the leading source of PSPS communications (44%), followed by email (30%); mentions of social media increased significantly since last wave (26% vs 18%)





In the past year, do you recall seeing, hearing or reading the phrase 'Public Safety Power Shutoff or PSPS?' (n=325; Total)
Where do you recall seeing or hearing about Public Safety Power Shutoff information related to wildfire conditions? (n=218; Recall PSPS Communications)

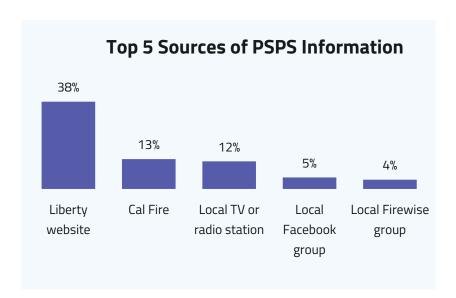
Arrows signify statistical difference at the 95% confidence level compared to the previous wave



PSPS Information & Understanding

- The Liberty website remains the most mentioned source for information about PSPS
- Awareness and understanding remains consistent with the previous wave; almost nine in ten understand that a PSPS means
 "for areas at a higher risk of fast-spreading catastrophic wildfires, the utility will proactively shut off power during extreme
 and dangerous weather" (87%)

 Nov June Nov August



PSPS Understanding	Nov 2022 (n=218)	June 2022 (n=217)	Nov 2021 (n=161)	August 2021 (n=136)
For areas at a higher risk of fast-spreading catastrophic wildfires, the utility will proactively shut off power during extreme and dangerous weather.	87%	82%	82%	79%
Before considering a Public Safety Power Shutoff the utility assesses several factors: dry trees and other fuel, winds, extremely low humidity, weather conditions, population density, real-time on-the-ground observations and input from local public safety and health agencies.	66%	63%	65%	71%
A Public Safety Power Shutoff is a last resort by the utility in an effort to prevent a fast-moving, hard to fight wildfire to help ensure customer and community safety.	49%	42%	52%	58%
The likelihood of a Public Safety Power Shutoff is reduced when the utility takes steps to harden the electric grid.	45%	43%	43%	46%
Taking steps to enhance situational awareness by tracking satellite information and monitoring weather conditions can reduce the likelihood of a Public Safety Power Shutoff.	38%	Added	Novembe	r 2022

Which one of the following would you most likely turn to first for information about Public Safety Power Shutoff? (n=218; Recall PSPS)
What is your understanding of a Public Safety Power Shutoff? (n=218; Recall PSPS)

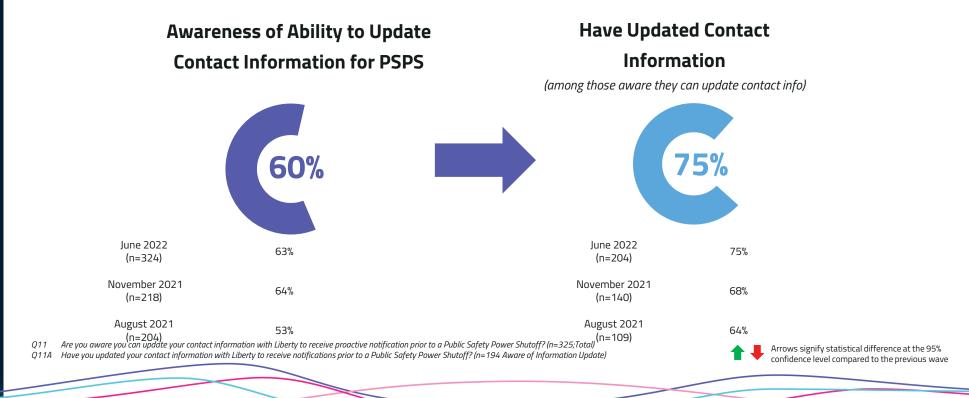


Arrows signify statistical difference at the 95% confidence level compared to the previous wave



Contact Information for PSPS

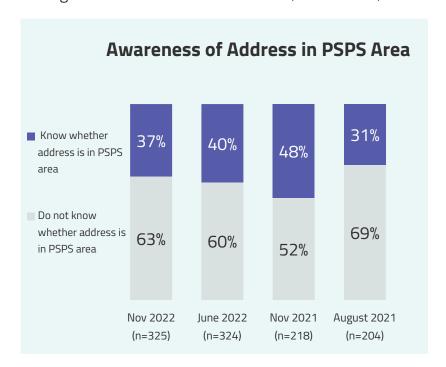
- Just under two thirds (60%) are aware they can update their contact information with Liberty; awareness among **Recallers** is significantly higher than among Non-Recallers (67% vs 44%)
- Three quarters (75%) of those aware they can update their information have done so

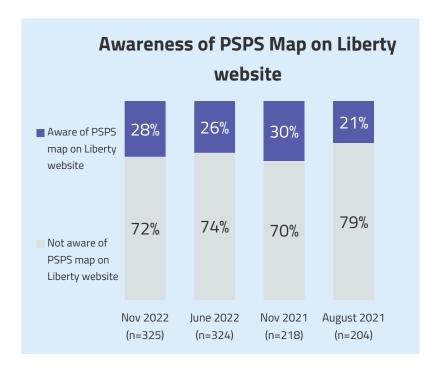


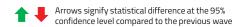


Awareness of PSPS Location Status

• Almost two out of five know whether their address is in a PSPS area (37%); awareness remains higher among **Recallers** than Non-Recallers (44% vs 22%)







Q12 Do you know whether your address is located in a Public Safety Power Shutoff area? (n=325; Total)

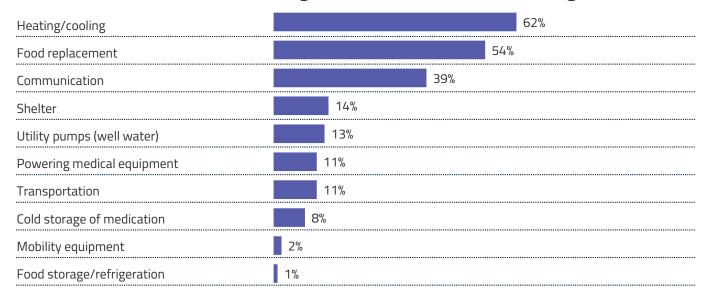
Q13 Are you aware of a map on Liberty's website where you can check whether your address is located in a Public Safety Power Shutoff area and the status? (n=325 total)



Concerns about Extended Outage

• The largest concerns and perceived challenges in the event of an extended power outage include heating/cooling (62%), food replacement (54%), and communication (39%)

Concerns or Challenges of an Extended Power Outage



In the event of an extended power outage, what are your most significant concerns or challenges? (n=325)





Medical Needs and Language Preferences

Almost one in five (17%) responded that they rely on electricity for medical needs

Among **critical customers** the percentage is significantly higher than randomly selected customers (**78%** vs 13%)

Over two in five (41%) of those relying on electricity for medical needs are aware Liberty provides additional notices prior to a PSPS event

Over one in ten (14%), indicate that another language other than English is primarily spoken; English remains preferred for communications for nearly all respondents (98%)

One percent mentioned Spanish as their preferred language

All but nine respondents (97%) stated it would not be helpful for them or somebody in their household to receive communications in another language

Q14 Does anyone in your home or business rely on electricity for medical needs/equipment? (n=325; Total)

Q14A Are you aware that Liberty provides additional notices prior to a Public Safety Power Shutoff to households that have medical needs/equipment? (n=56; Rely on electricity for medical needs)

Q15 Is your primary language other than English? (n=325; Total)

Q16 Would it be helpful for you or anyone else in your household to receive communications in another language? (n=325; Total)

Q16B What is your preferred language to receive communications? (n=325, Total)

Post-PSPS



Outreach and Engagement Satisfaction

- Customers remain generally satisfied with the outreach and engagement they receive
- When compared with June 2022, customers are significantly more satisfied with outreach about preparing to act in the event of a wildfire

					Top-3-Box	
Outreach and Engag				June 2022 (n=324)	November 2021 (n=218)	August 2021 (n=204)
Availability of resources in your community	22%	35%	43%	39%	40%	33%
Where to find information to help you stay safe	22%	35%	43%	37%	41%	33%
Amount of information and outreach you received	25%	31%	43%	36%	35%	29%
In preparing you to act in the event of a wildfire	23%	35%	42% 👚	32%	41%	34%
What to expect in the event of a PSPS	27%	33%	41%	41%	39%	32%
What the utility does to mitigate wildfire risk	23%	37%	41%	36%	35%	28%
	Dissatisfied	(1-4) 5-7	■ Satisfied (8-10)			

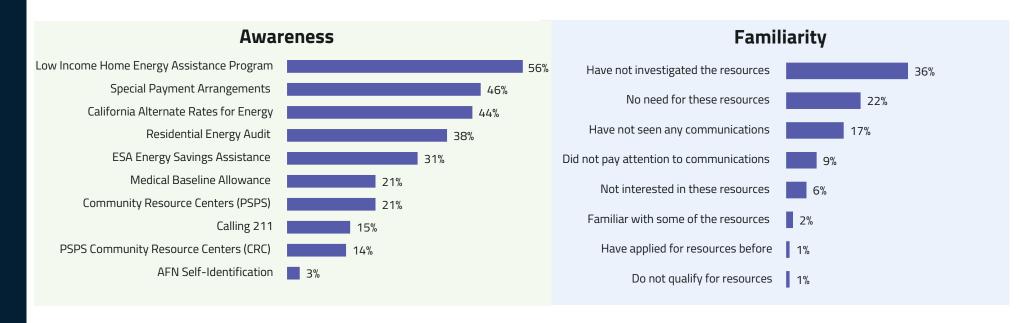
QSAT1 On a scale of 1 to 10, with 1 being not at all satisfied and 10 being very satisfied, how satisfied are you with the outreach and engagement you receive? (n=325; Total)

Arrows signify statistical difference at the 95% confidence level compared to the previous wave



Awareness and Familiarity of Resources

- Of the resources available to the public, more than half indicated they were aware of the Low-Income Home Energy Assistance Program (56%), followed by Special Payment Arrangement (46%) and California Alternative Rates (44%)
- · Six in ten report they either have not investigated the resources or have no need



Liberty supports a number of resources that are available to the public. Before today, which of the following resources have you heard of? (n=325) What statement best describes your familiarity with the resources you just reviewed? (n=325)

Arrows signify statistical difference at the 95% confidence level compared to the previous wave

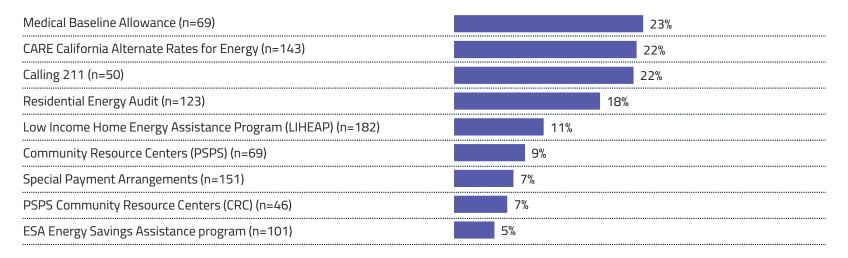


Resources Used

• Of those who are aware of the resources available, Medical Baseline Allowance, CARE, and Calling 211 are the most frequently used

Resources used

(among those who are aware)



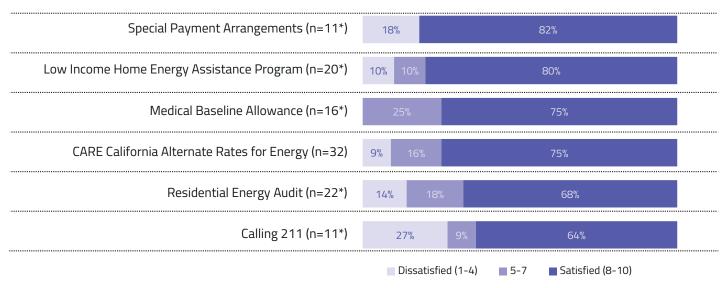
Arrows signify statistical difference at the 95% confidence level compared to the previous wave



Satisfaction with Resources Used

• Customers using Special Payment Arrangements, Low Income Home Energy Assistance Program, Medical Baseline Allowance, and CARE California Alternate Rates for Energy are highly satisfied

Resource Satisfaction



*Small sample size (n<30)

Arrows signify statistical difference at the 95% confidence level compared to the previous wave

10 On a scale of 1 to 10, with 1 being not at all satisfied and 10 being very satisfied, how satisfied are you with the resources you've used in the past?

Critical Customers Summary



Key Metrics: Random vs Critical Customers

	Random Customer (n=302)	Critical Customer (n=23*)
Aware of Wildfire Safety Communications	67%	65%
Aware of Communications from Liberty (among those aware)	44%	33%
Took Action to Prevent or Prepare for a Wildfire	88%	91%
Recall PSPS	68%	61%
Would Turn to Liberty Website for PSPS Info	35%	71%
Aware of Ability to Update Contact Info for PSPS	59%	65%
Know if Address is in PSPS Area	37%	39%
Satisfied with Availability of Resources in Community for Wildfire Safety Info	43%	52%
Aware of Additional PSPS Notices for Those with Medical Need (among those with medical need)	26%	72%
Aware of AFN Self-Identification	3%	
	*Caution small sample size	Bold denotes statistically significant diff between Random and Critical Customers



Demographic Profiles: Random vs Critical Customers

(n=302)	Critical Customer (n=23*)	
Male – 46%	Male – 35%	
	Female – 65%	
18-54 – 27%	18-54 – 22%	
55-64 – 19%	55-64 – 22%	
65+ - 49%	65+ -57%	
\$103K	\$55K	
Rent – 14%	Rent – 17%	
Own – 82%	Own – 83%	
14%	13%	
13%	78%	
	(n=302) Male – 46% Female – 44% 18-54 – 27% 55-64 – 19% 65+ – 49% \$103K Rent – 14% Own – 82%	

*Caution small sample size

Bold denotes statistically significant difference between Random and Critical Customers



Key Metrics: AFN vs. Non-AFN

	AFN Customer (n=263)	Non-AFN Customer (n=62)
Aware of Wildfire Safety Communications	70%	53%
Aware of Communications from Liberty (among those aware)	43%	42%
Took Action to Prevent or Prepare for a Wildfire	88%	87%
Recall PSPS	68%	65%
Would Turn to Liberty Website for PSPS Info	39%	30%
Aware of Ability to Update Contact Info for PSPS	59%	61%
Know if Address is in PSPS Area	38%	35%
Satisfied with Availability of Resources in Community for Wildfire Safety Info	45%	37%
Aware of Additional PSPS Notices for Those with Medical Need (among those with medical need)	41%	
Aware of AFN Self-Identification	2%	6%
	*Caution small sample size	Bold denotes statistically significant difference between AFN and non-AFN Customers



Demographic Profiles: AFN vs. Non-AFN

(n=263)	Non-AFN Customer (n=62)
Male – 47%	Male – 39%
Female – 46%	Female – 45%
18-54 – 17%	18-54 –66%
55-64 – 18%	55-64 – 23%
65+ - 61%	65+ -0%
\$87K	\$143K
Rent – 12%	Rent – 21%
Own – 84%	Own – 73%
17%	
21%	
	(n=263) Male – 47% Female – 46% 18-54 – 17% 55-64 – 18% 65+ – 61% \$87K Rent – 12% Own – 84%

Bold denotes statistically significant difference between AFN and non-AFN Customers



Four in-depth interviews were conducted with community-based organizations (CBOs) in the Liberty territory.

- Interviews lasted 30 minutes and were conducted using Microsoft Teams
- Participants were paid \$100 as a "thank you" for their time and feedback
- All interviews were recorded
- Interviews were scheduled using a "warm handoff" from Liberty





Current Communications

- Wildfire safety is top of mind in the community, and most CBOs recall some communications from fire or local public safety agencies
- Recall of communications or information from Liberty about fire safety or PSPS preparedness are limited; most only recall standard customer-facing communications related to wildfire safety or PSPS
- One senior organization did participate in PSPS-specific training, and noted that Liberty provides support for them to act as a generator/cooling station in the event of an outage
- CBOs do regularly engage with Liberty for support with financial assistance, and general community engagement
- Issues around wildfire safety, preparedness, and PSPS are outside the scope of most CBOs' charters, but they recognize the importance to the community and want to help with the resources they have available
- CBOs are currently using social media, in-person/phone interactions, and email to reach their client bases; while social media may not reach some members of the community (without cell/internet access), it is generally seen as the best form of mass communications with no/limited local TV/radio and only small local newspapers printing every week or two

Spreading the Word

- CBOs are willing to help spread the word about wildfire preparedness, safety, and PSPS events, if provided the necessary resources
 - They are willing to help by participating in or holding events, handing out flyers, pointing clients to online resources, sharing information via social media, or handing out printed materials
 - Most serve communities particularly vulnerable to PSPS events (such as food insecure, elderly, those with medical conditions, homeless, and victims of domestic violence), and they are willing to help share information and resources during typical interactions with the community
- Social media was commonly mentioned as way to reach the community, along with email, bill inserts, and in-person community outreach by Liberty
 - There are local and specific Facebook groups that can be used to target very local populations, which can be used to encourage word of mouth communications, similar to a phone tree concept
 - Social media does have some limitations with elderly, low-income, and rural community members, as they are less likely to have reliable internet access, so non-digital communications directly from Liberty (e.g., letters/bill inserts) are necessary to reach everyone
- English and Spanish are the primary languages required



Useful Information/Resources

- CBOs mention the need to communicate Liberty's efforts to mitigate wildfire risk and prevent the need for PSPS events
 - There appears to be some frustration about the idea that turning off the power is the best solution, and customers want to see that Liberty is taking steps to make that a last resort
 - Increasing awareness of efforts like tree trimming, powerline maintenance, and proactive weather monitoring may help customers understand that PSPS is something only used when absolutely necessary
- The most effective ways Liberty can support CBOs in preparing the community include:
 - Sharing/creating content that can be shared on social media, either by linking to Liberty or providing content for CBOs to post
 - Sharing accurate information about PSPS events, and providing timely updates as circumstances change
 - · Identifying those with medical needs and providing them information to ensure they are able to adequately prepare for a PSPS event or evacuation
 - Providing educational resources about how to prepare for a fire/outage, including evacuation plans (e.g., where to go), prepping a "go" bag, and information about shelters
 - Providing generators and battery backup supplies for temporary shelters (e.g., senior centers) that are in need of additional resources
 - Working with tourist-centered businesses (hotels, resorts, etc.) to reach visitors as well as seasonal workers who may not have an account with Liberty

PSPS Events

- One of the primary pain points around PSPS events is the constantly changing nature of the situation
 - Provide as much early notice as possible; this will allow people to make plans to stay with family, etc., arrange transportation, pick up last-minute supplies, charge batteries, etc.
 - CBOs state that they would prefer to receive as much communication as
 possible during the fire season, and if there is any possibility of an event;
 during the off-season, communication frequency should be monthly or
 quarterly, with a focus on late spring as fire season nears
 - After the recent fire season, the community is highly concerned about the risk, and generally understanding about the dynamic nature of PSPS and the inconveniences associated
- Specific information about how to prepare for an outage/PSPS event is most useful/relevant
 - Details on how to prepare, including having access to water, how to minimize food spoilage are all highly important
 - Information for emergency situations, including evacuation plans and the content required for a "go" bag
 - Special attention should be paid to those with medical needs and limited transportation options
- In additional to traditional email/social media or mass media communication channels, CBOs recommend incorporating a phone tree approach, where they can help reach the community and encourage community members to contact others

Demographic Profiles



Respondent Profiles

Gender	Total (n=325)	Recallers (n=218)	Non- Recallers (n=107)
Male	46%	44%	49%
Female	46%	45%	47%
Age			
18 to 24			
25 to 34	6%	5%	8%
35 to 44	10%	8%	13%
45 to 54	11%	11%	11%
55 to 64	19%	20%	17%
65 or over	49%	51%	46%
Prefer not to say	6%	6%	5%

Renter/Homeowner	Total (n=325)	Recallers (n=218)	Non- Recallers (n=107)
Own	82%	83%	79%
Rent	14%	12%	18%
Prefer not to say	3%	3%	4%
Household Income			
Less than \$20,000	5%	5%	6%
\$20,000 to \$39,999	9%	8%	10%
\$40,000 to \$59,999	6%	4%	10%
\$60,000 to \$89,999	14%	15%	11%
\$90,000 to \$129,999	11%	12%	10%
\$130,000 to \$199,999	11%	10%	12%
\$200,000 or more	16%	16%	16%
Prefer not to say	28%	30%	24%

Bold denotes statistically significant difference between Recallers and Non-Recallers

Q17 What is your gender? (n=325; Total)

Q18 What is your age category? (n=325; Total)

Q19 Do you own or rent your home? (n=325; Total)

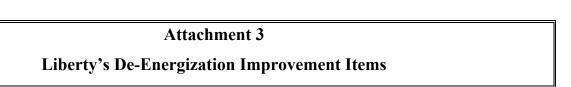
Q20 Which of the following best describes your annual household income? (n=325; Total)



Respondent Profiles – AFN Criteria

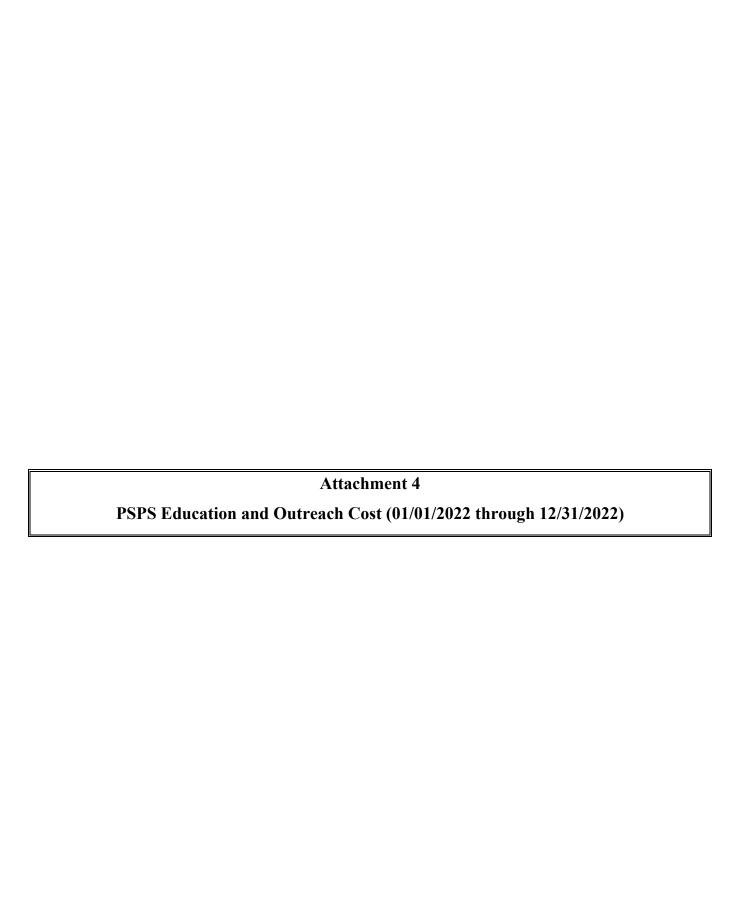
	Total (n=325)	Recallers (n=218)	Non-Recallers (n=107)
AFN (NET)	81%	85%	73%
Age 65+	49%	51%	46%
<\$40K income	14%	13%	16%
Chronic conditions or injuries	17%	18%	13%
Limited access to transportation	11%	10%	14%
Physical, developmental, or intellectual disability	10%	12%	6%
Non-English language needs	3%	1%	6%
Medical need	17%	17%	18%

Bold denotes statistically significant difference between Recallers and Non-Recallers



LIBERTY UTILITIES DE-ENERGIZATION IMPROVEMENT ITEMS

Observation	Corrective Action	Observed Consequences
Additional understanding of a NV Energy Public Safety Outage Management (PSOM) is needed. We should use "upstream event" because the term PSOM is confusing	Additional testing of PSOM implications in future exercises. Change our terminology to use "upstream event" instead of PSOM.	Greater ability to handle upstream events and more clarity in communications.
Exercise restoration times need to be more realistic. In real time we would have damage to repair, and it would take 24 hours minimum	In future exercises allow more time to test restoration. Include a scenario with line repair.	Better understanding and execution of PSPS restoration.
Include Critical Infrastructure in prioritization of power restoration.	In future exercises consider critical infrastructure in determining priority of re-energization. Update restoration reenergization scripts to include this.	More timely response to restoration of critical infrastructure.
Need additional Regulatory Affairs staff registered in the Cal OES system so there can be back up staff that can perform the function.	Register two additional Regulatory Affairs staff members in the Cal OES system so there are back up staff available.	Timely notifications to Cal OES and more depth in the Incident Management Team.
PSPS communications procedures require that a message go out to Medical Baseline Customers in the Potential PSPS Stage, but it is not noted in the PSPS playbook checklist	Add the requirement for notification of Medical Baseline Customers in the Potential PSPS stage to the PSPS playbook checklist.	Enhanced communication with Medical Baseline customers.
The Regulatory Affairs Liaison is responsible for sending the PSPS notifications to Cal OES and setting up the State Executive briefing, but it is not reflected in the playbook. Procedures for getting info for OES notification to Regulatory Liaison are not specified.	Update the playbook to reflect that Regulatory Affairs will be responsible for providing the online CalOES notification and setting up the State Executive Briefing. Specify procedures for getting report info to the Regulatory Liaison.	Timely execution of Cal OES requirements



Education and Outreach Cost

For Reporting Period: From 01/01/2022 Through 12/31/2022

	E&O Program Description and	Approximate Number of People			Costs Incurred By Other	
PSPS E&O Program Type	Method	Reached	Cost Incurred By IOU	Names of Entities (IOU, CBO, etc.)	Entities	Total Cost for (Prior Year)
Outreach Content Development	Digital and video content design, as well as strategic support for media outreach.	All customers in service territory	\$20,071	Randle Communications	\$0	\$20,071
E&O Surveys	Randomly targeted surveys conducted by web or phone to measure public awareness of messaging related to PSPS.	>400	\$43,138	Market Decisions Corporation, DBA MDC Research	\$0	\$43,138
Digital Outreach and Advertising	Distribution of website resources, digital ads, radio ads, and social media to inform customers of community events and resources.	All customers in service territory	\$18,301	Creative Concepts Media & Marketing	\$0	\$18,301
Print Outreach and Advertising	Distribution of bill inserts and print ads to inform customers of community events and resources.	All customers in service territory	\$2,128	ACP Publications & Marketing	\$0	\$2,128
						\$0
		-				\$0
						\$0
Total		0	\$83,637		\$0	\$83,637