

Public Safety Power Shutoff Regional Resiliency Report

August 2021



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SUMMARY

On March 2, 2021, the Board of Supervisors approved a directive to the Chief Administrative Officer (CAO) to consult with stakeholders and produce a report and coordinated plan to increase regional resiliency during Public Safety Power Shutoff (PSPS) events.

The board action included the following recommendations brought forth by Supervisor Jim Desmond and Supervisor Joel Anderson:

1. Direct the Chief Administrative Officer to identify gaps in Public Safety Power Shutdown mitigations and opportunities to further reduce the impact on the region, including health and safety concerns, assistance in individuals with Access and Functional Needs, back-up power for road infrastructure and major intersections, and other actions to benefit areas frequently affected by a PSPS. This process shall involve consultation with stakeholders including county representatives, outside agencies, organizations and jurisdictions, and SDG&E.
2. Direct the Chief Administrative Officer, after consultation with stakeholders and through discussions with state representatives, to pursue funding to address these gaps from public and private sources.
3. Direct the Chief Administrative Officer to return to the Board within 120 days with a report and recommendations to further mitigate PSPS on the region.

As a result of the Board action, the County of San Diego Office of Emergency Services (OES) formed the 2021 PSPS Regional Resiliency Working Group comprising of a diverse set of regional partners who have experience with PSPS events. The working group held a series of meetings, conducted a public survey that yielded 2,305 responses, held a virtual public forum to review public survey results, and offered a public question-and-answer session. OES then compared existing PSPS mitigation gap solutions to identify remaining PSPS mitigation gaps and research opportunities to further improve operational area coordination. The methods and recommendations are contained in this report.

INTRODUCTION

HISTORY OF PSPS IN SAN DIEGO COUNTY

According to the California Public Utilities Commission (CPUC), electric utility infrastructure has historically been responsible for less than ten percent of reported wildfires. However, fires attributed to power lines comprise roughly half of the most destructive fires in California history. With the continuing threat of wildfire, utilities may proactively cut power to electrical lines that may fail in certain weather conditions to reduce the likelihood that their infrastructure could cause or contribute to a wildfire. This effort to reduce the risk of fires caused by electric infrastructure by temporarily turning off power to specific areas is called a Public Safety Power Shutoff (PSPS).

In 2012, the California Public Utilities Commission (CPUC) issued a ruling that granted electric utilities the authority, under California Public Utilities Code Sections 451 and 399.2(a), to shutoff electric power to protect public safety when certain emergency conditions exist. As a result, San

Diego Gas & Electric (SDG&E) has the authority to implement PSPS events within San Diego County, and indeed exercises this authority during extreme weather conditions.

In 2019, the National Weather Service San Diego office recorded four Red Flag Warnings that affected the County. SDG&E reported three notable PSPS events for the year. A PSPS event occurred on October 10-11, which affected 395 customers between 18-23 hours. The second event occurred October 20-November 1, which affected 1,032 customers and had an overall duration of 57 hours and 36 minutes. Last, on November 17-18, a PSPS event affected 21 customers and had an overall duration of 27 hours and 41 minutes.

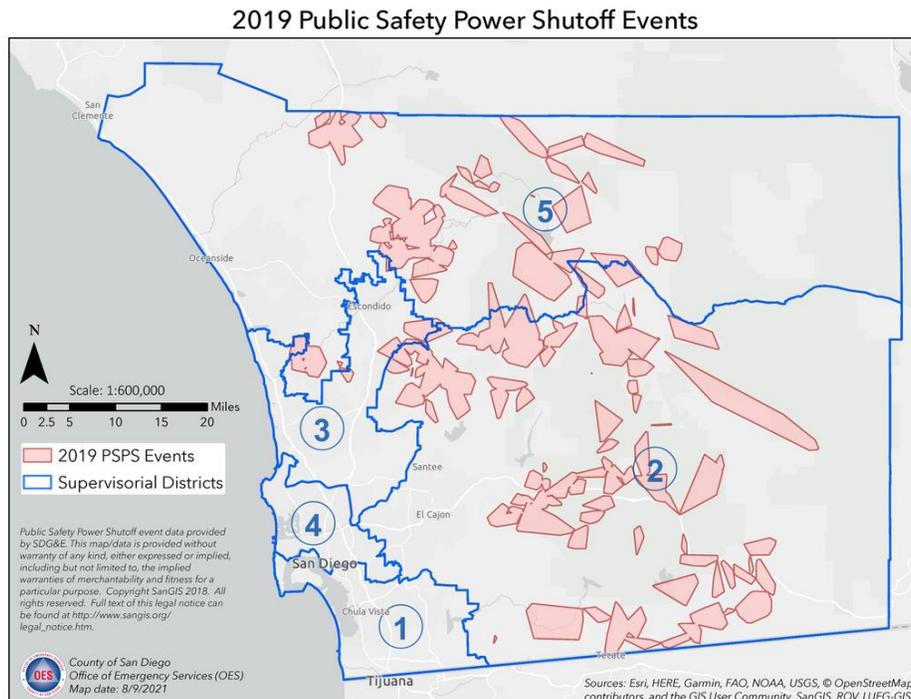


Figure 1: Map of 2019 PSPS Events in relation to Supervisorial Districts.

In 2020, the National Weather Service San Diego office recorded seven Red Flag Warnings that affected the County. SDG&E reported three notable PSPS events for the year. A PSPS event occurred on September 8-9, which affected 49 customers for 13 hours and 30 minutes. The second event occurred October 26-27, which affected 4,373 customers and had an overall duration of eight hours and seven minutes. Finally, on December 23-24, a PSPS event occurred and affected 6,797 customers for a duration of 19 hours. SDG&E provides energy through 1.4 million meters. PSPS outages affected 0.8% of SDG&Es customers in 2020.

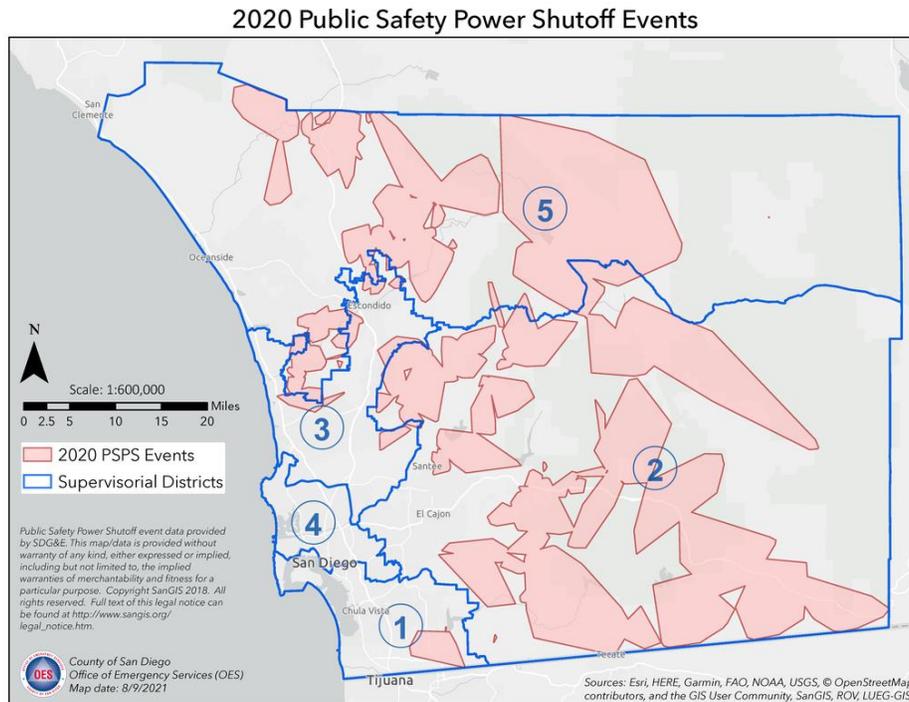


Figure 2: Map of 2020 PSPS Events in relation to Supervisorial Districts

Utility-initiated Public Safety Power Shutoffs have become increasingly common as a strategy to prevent wildfires related to downed powerlines. However, these PSPS events continue to adversely impact California residents with loss of refrigeration affecting foods and certain medications, inadequate heat and cooling in the home, lack of ability to use life-sustaining devices, inability to pump water from wells, and loss of cellular and broadband VoIP communication capabilities which might result in an inability to call 911 or to receive alert messages. Cities and counties have been impacted as well through school closures, loss of federal and state revenues for social service programs, and business impacts due to inventory loss of perishable products and loss of sales revenue.

On 10/25/2019, Governor Gavin Newsom launched the \$75 million “Local Government Public Safety Power Shutoff Resiliency Program” as a funding opportunity to mitigate the impacts of utility initiated PSPS events on California’s public health, safety, and commerce. As part of the program, all 58 California counties were allocated funding based on county size and experience with PSPS. The County of San Diego received an award notification in the amount of \$1,214,656, and budgeted funds to the following projects:

Project	Cost
SDCFPD: installation of fire station generators	\$665,000
Libraries: installation of library generators	\$415,000
Sheriff’s Department: generator pad design and automatic transfer switch (ATS)	\$120,000
Total Cost:	\$1,200,000

Further breakdown of the County of San Diego’s 2019 “Local Government Public Safety Power Shutoff Resiliency Program” award budget and projects:

Project Request (Fire Stations)	Cost
Julian Fire Station 56 (generator)	\$160,000
San Pasqual Fire Station 84 (generator)	\$160,000
Palomar Mountain Fire Station 79 (generator)	\$45,000
Lake Morena Fire Station 42 (generator)	\$100,000
Deerhorn Fire Station 37 (generator)	\$100,000
Sunshine Summit Fire Station 59 (generator)	\$100,000
Total for Fire Stations: \$665,000	

Project Request (Libraries)	Cost
Two Libraries (Descanso and Potrero) (generators)	\$415,000
Total for Libraries: \$415,000	

Project Request (Sheriff’s Department)	Cost
Sheriff’s Department HQ (generator pad and transfer switch)	\$120,000
Total for Sheriff’s Department: \$120,000	
TOTAL FUNDING GRANTED: \$1,200,000*	

**Remaining \$14, 656 of funding is categorized as OES unearned revenue and will be awarded to other eligible county expenditures.*

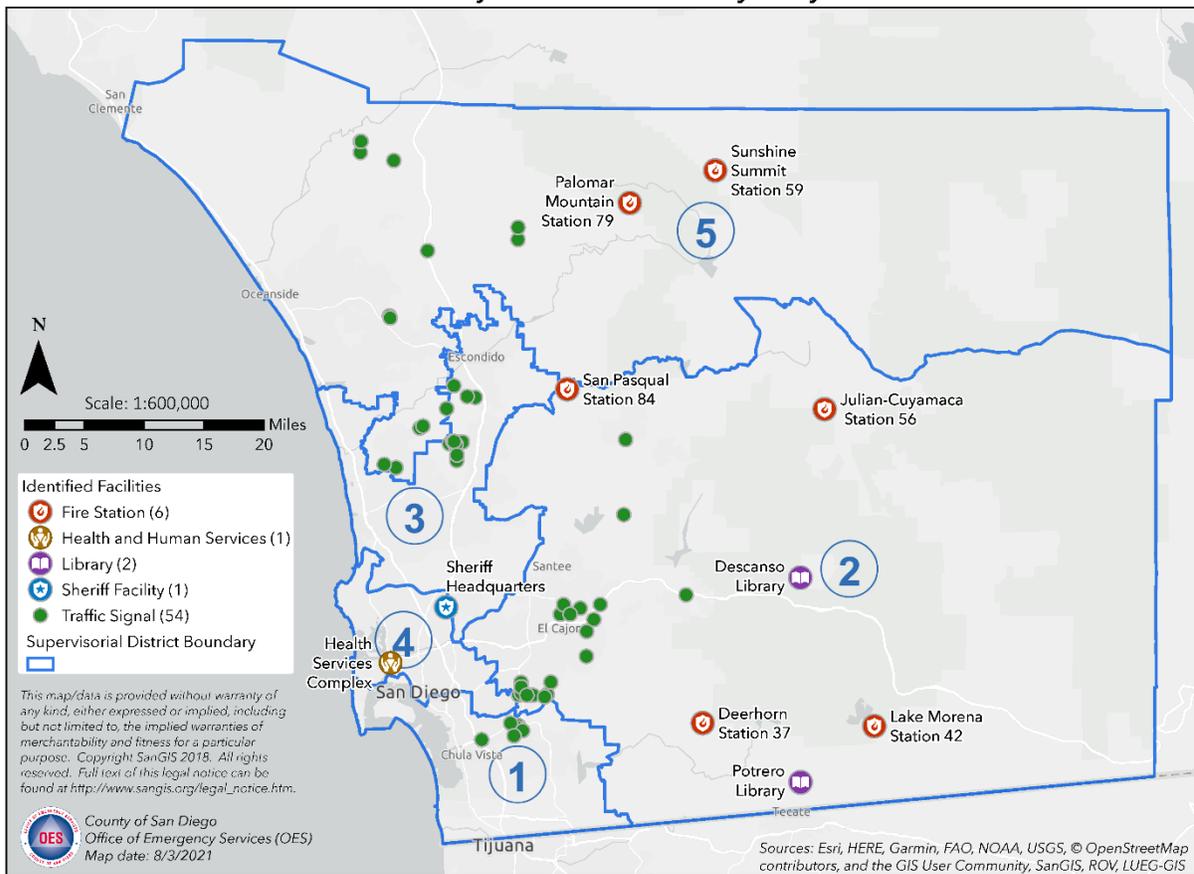
In Fiscal Year 2020-21, the name of the “Local Government Public Safety Power Shutoff Resiliency Program” was changed to the “Community Power Resiliency Allocation Program.” The purpose of the “Community Power Resiliency Allocation Program” is to fund activities such as developing and conducting plans that better prepare communities for public safety power shutoff events and to secure necessary equipment, such as, generators, fuel storage and other backup energy sources for essential facilities and backup emergency communications equipment.

On 10/2/2020, County of San Diego OES received an allocation notification in the amount of \$607,328 for the Fiscal Year 2020-21 “Community Power Resiliency Allocation Program” with specific guidance and requirements. This guidance required OES to allocate at least 50% percent of the award to support one or more of the resiliency areas: schools, election offices, food storage reserves, and/or COVID-19 testing sites. On 10/20/2020, the County of San Diego OES Director submitted the Notification of Subrecipient Allocation to the Governor’s Office of Emergency Services and identified COVID-19 testing sites as the specified resiliency area.

OES, in consultation with Health and Human Services Agency (HHS), San Diego County Fire Protection District (SDCFPD) and Department of Public Works (DPW), identified eligible projects and finalized the project funding on 2/17/2021. Funding was budgeted as follows:

Project	Cost
HHSA: backup generator design costs for the Health Services Complex (3851 Rosecrans Street), which houses the primary laboratory for COVID-19 testing	\$303,664
SDCFPD: installation of backup generators at three fire stations	\$151,832
DPW: replace backup batteries for 54 traffic signals at major intersections in the unincorporated areas	\$151,832
Total Cost:	\$607,328

Community Power Resiliency Projects



LEGISLATION

Since PSPS events are often governed by the CPUC's decisions and state legislation, County of San Diego OES regularly engages with utilities and other PSPS stakeholders to anticipate changes in legislation and community impacts. Through the County's office of Strategy and Intergovernmental Affairs, we closely monitor and engage in legislation in conjunction with the statewide advocacy groups.

Current, proposed legislation that could impact future PSPS activities include:

AB 418 (Valladares, Amended 5/24/2021):

- Would establish the Community Power Resiliency program to be administered by the California Office of Emergency Services (Cal OES) to support local governments' efforts to improve resiliency in response to power outage events and would require the office to allocate funds to local governments, special districts, and tribes for various purposes relating to power resiliency.
- Would require certain entities to either describe the portion of their emergency plan that includes power outages or confirm that power outages will be included when the entity revises any portion of their emergency plan in order to be eligible for funding.
- Cities, special districts, and tribes would be allocated funds on a competitive basis, under this bill's provisions, while counties would be allocated a noncompetitive amount to be divided between all counties based upon population.
- The program contained in this bill was included, with funding, in Budget Trailer Bill AB 128 which was chaptered on 6/28/21.

AB 1403 (Levine, Amended 6/9/2021):

- Would additionally include a de-energization event within conditions constituting a state of emergency, and this bill would declare it is to take effect immediately as an urgency statute. This bill is very similar to SB 52.

SB 52 (Dodd, Amended 4/12/2021):

- Would define a de-energization event as a planned power outage and would make a de-energization event one of the conditions constituting a local emergency, with prescribed limitations. This bill is very similar to AB 1403.

SB 99 (Dodd, Amended 7/5/21):

- Known as the Community Energy Resilience Act of 2021, this bill would implement a grant program for local governments to develop community energy resilience plans and expedite permit review of distributed energy in order to help ensure continuous electricity service during power outages. The California State Association of Counties (CSAC) supports this bill on behalf of all counties.

SB 533 (Stern, Amended 7/1/2021):

- Would require an electrical corporation's wildfire mitigation plan to identify circuits that have frequently been de-energized to mitigate the risk of wildfire and the measures taken, or planned to be taken, by the electrical corporation to reduce the need for, and impact of, future de-energization of those circuits, including replacing, hardening, or undergrounding any portion of the circuit or of upstream transmission or distribution lines.

The County of San Diego continues to analyze and track PSPS-related legislation and the impacts to our communities. This legislation will directly impact strategies to address PSPS mitigation gaps and opportunities to further improve operational area coordination. At the time this report was printed, all of the above bills were either in Appropriations committees or awaiting Floor votes.

The San Diego County Board of Supervisors directive led to the formation of the 2021 PSPS Regional Resiliency Working Group, with members from the County of San Diego, State of California, federal, city and tribal governments, the Fire Chiefs Association, SDG&E, County Water Authority, County Office of Education, non-governmental organizations (NGOs), mobile providers, and the Air Pollution Control District. Additionally, OES publicized and conducted a public survey regarding PSPS experiences and received 2,305 survey results. On 7/30/2021, OES hosted a virtual PSPS Public Forum, reviewed findings from the survey and offered a question-and-answer session. The working group and PSPS-affected public members provided valuable feedback resulting in recommendations to the Board of Supervisors.

METHODS

OES used two methods throughout the project. First, OES formed the 2021 PSPS Regional Resiliency Working Group and held a series of four meetings to collaborate on PSPS gap mitigation solutions and discuss opportunities to further improve operational area coordination. The Working Group also helped design the public survey.

Working Group members included:

- County of San Diego Departments: Office of Emergency Services, Department of Public Works, Sheriff's Department, Libraries, Department of Environmental Health and Quality (DEHQ), San Diego County Fire Protection District/Community Emergency Response Team (CERT), Department of Public Health, and Aging and Independence Services (AIS)
- County Water Authority
- Governor's Office of Emergency Services (Cal OES)
- California Department of Transportation (Caltrans)
- California Highway Patrol (CHP)
- Voluntary Organizations Active in Disaster (VOAD)
- American Red Cross (ARC)
- 2-1-1 San Diego
- SDG&E

- U.S. Military (Camp Pendleton)
- Southern California Tribal Chairmen’s Association (SCTCA)
- City of Escondido
- City of Poway
- National Weather Service (NWS)
- County Office of Education
- Consulate of Mexico in San Diego
- Farm Workers Coalition
- Fire Chiefs Association
- San Diego Regional Center
- Chaldean Community representatives
- Afghan Community representatives
- FirstNet/AT&T
- Supervisorial Districts 1,2,3,4,5 representatives

The 2021 PSPS Regional Resiliency Working Group conducted meetings on:

- 5/6/2021: Kick Off Working Group Meeting
- 5/27/2021: 2nd Working Group Meeting
- 6/24/2021: 3rd Working Group Meeting
- 7/15/2021: 4th Working Group Meeting.

OES facilitated all Working Group meetings and focused on key themes including: PSPS policy, coordination/communication, outreach, equipment and critical infrastructure, and recovery. All member feedback and suggestions were captured and incorporated into the recommendations.

PUBLIC SURVEY METHODS

County of San Diego OES created, then distributed the public survey to partners via email on 6/19/2021 and the County of San Diego Communications Office posted an article on the County News Center with the survey on 6/30/2021. The survey instructions asked participants to provide PSPS stakeholder and community feedback. The virtual PSPS Public Forum to review survey results was held on 7/30/2021. OES will continue to collect public feedback on PSPS impacts and mitigation opportunities on the OES public website at: <https://www.sandiegocounty.gov/oes/>.

RESULTS

PUBLIC SURVEY RESULTS

The PSPS public survey recorded 2,305 total responses and response to every question was not mandatory. OES staff reviewed then noted particularly helpful responses to three survey questions. The following voluntary survey responses displayed detailed, majority feedback:

- 1) Survey question #7 revealed the survey respondent majority indicated they were not provided sufficient resources to maintain safety for life, property, and the environment during a PSPS event.

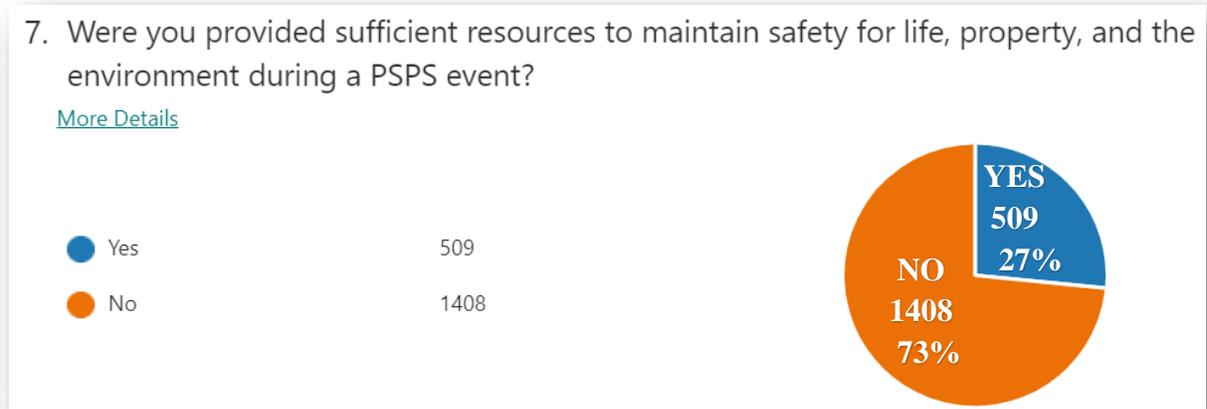


Figure 3: PSPS public survey question #7.

- 2) The survey respondent majority additionally indicated, on survey question #11, they were not sufficiently contacted following a PSPS event to inform them of the end of the power outage.

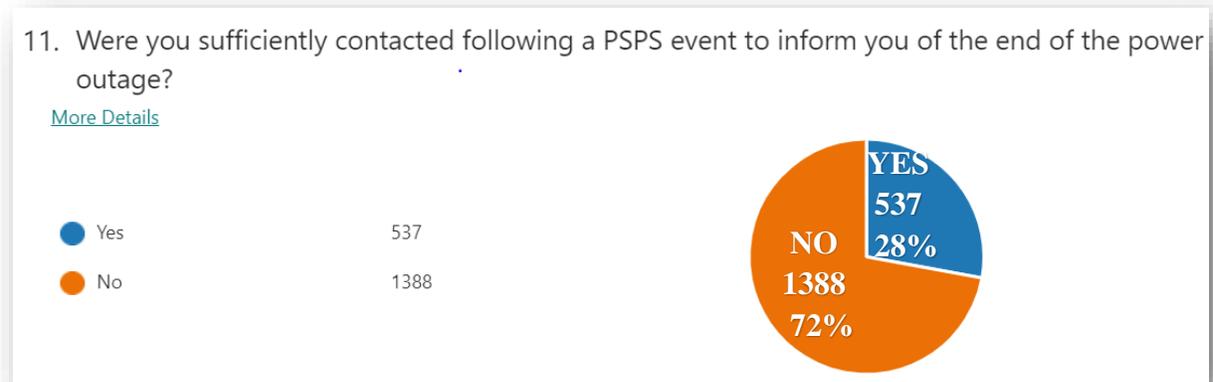


Figure 4: PSPS public survey question #11.

- 3) Survey Respondents were provided the open-ended opportunity, on question #14, to share any issues and/or opportunities experienced regarding personal safety, property or environment following a PSPS event. 609 responses were recorded, then analyzed by OES staff.

14. Please share any issues or opportunities you experienced regarding your safety, property or environment FOLLOWING a PSPS event.

[More Details](#)

609

Responses

Latest Responses

Figure 5: PSPS public survey question #14.

Some open-ended style survey questions, such as question #14, enabled detailed public feedback:

TOPIC	PUBLIC FEEDBACK
SDG&E Claims Process	The PSPS public survey identified opportunities to improve the SDG&E claims process. The claims process is used to report damages likely caused by PSPS events such as loss of food or medication during extended PSPS events.
Insufficient Alternate Power	Portable power stations (battery plus inverter systems), while sufficient for low demand powered medical equipment, may be insufficient for medical equipment requiring more power through long-term outages.
General Power Needs	The PSPS public survey captured frequent comments related to power needs. Top mentions among these were insufficient safety lighting, inability to charge electric vehicles, unable to work remotely, loss of air conditioning, unable to power well pumps and loss of aquarium fish due to the inability to oxygenate water.
Solar Panel Limitations	Many residents commented on the inability of rooftop solar panels to provide backup power during a PSPS event. Solar panels cannot act as an alternate power source without the addition of batteries to store the energy produced. This information should be included in all outreach materials.

WORKING GROUP SURVEY RESULTS

The following PSPS improvement suggestions were provided by the 2021 PSPS Regional Resiliency Working Group:

 = Recommendations that can be implemented using existing resources.

 = Recommendations needing additional resources and funding to implement.

POLICY

TOPIC	RECOMMENDATIONS
Energy Rebate Programs	Encourage residents to pursue available generator options and consider renewable resources to reduce our carbon footprint.
Utility Undergrounding Permitting Process	Review the plan check and permit process for utility undergrounding for opportunities to improve.

COORDINATION

TOPIC	RECOMMENDATIONS
Generator Regulations	Collaborate with partners to educate the public about generator usage, regulations, and regulation flexibilities during PSPS events. Track any legislation related to generator usage requirements at the local level.
Community Volunteer Teams	Investigate the feasibility of existing, trained volunteer teams assisting with Access and Functional Needs (AFN) welfare checks and SDG&E Community Resource Centers (CRCs). Volunteer teams could include Community Emergency Response Teams (CERT), or the Sheriff's You Are Not Alone (YARA) program.
AlertSanDiego	Research and implement an amendment to the county's non-disclosure agreement to expand the capability of outreach, notification, and alert and warning capability by sharing SDG&E customer contact information with AlertSanDiego.
Non-Profit Partnerships	Explore partnerships with existing, non-profit organizations that promote the re-planting of native, fire-resistant vegetation before and after wildfires.

OUTREACH

TOPIC	RECOMMENDATIONS
Underserved Communities	Identify and target outreach programs and events to underserved communities in high fire threat areas using equity, diversity, and inclusion methods.
Multi-Agency Communication	Promote 2-1-1 during PSPS. 2-1-1 is utilized by SDG&E during a PSPS event to identify and respond to unmet customer needs.
Multi-Agency Communication	Collaborate with stakeholders to familiarize the public with PSPS terminology. Provide county residents with PSPS-related outreach material at an accessible comprehension level, with common PSPS term definitions (such as de-energization, Red Flag Warning, Evacuation Order, and Evacuation Warning).
Public Outreach Methods	Continue outreach methods to PSPS-affected populations to inform residents about resources that can be requested through 2-1-1 San Diego (2-1-1 is also supported by SDG&E).

EQUIPMENT

TOPIC	RECOMMENDATIONS
Critical Infrastructure Hardening	Research opportunities to install backup power alternatives for critical infrastructure and key County facilities.
Regional Radio Coverage	Research available options to strengthen and maintain regional VHF radio coverage.

RECOVERY

TOPIC	RECOMMENDATIONS
EOC Activation Funding	State or federal reimbursement for EOC operations usually occurs when local emergencies are of a sufficient size or complexity. PSPS events generally do not qualify for state or federal funding. Local jurisdictions expressed a need to research reimbursement funding for the activation of their Emergency Operation Centers (EOC) or other expenses associated with PSPS events.

These working group suggestions encompassed the public survey feedback and additional topics. Therefore, the 2021 PSPS Regional Resiliency Working Group suggestions became the overall PSPS improvement recommendations to the County of San Diego Board of Supervisors for review.

ALL RESULTS

OES staff compiled results from the working group and public member surveys, collaborated with SDG&E to compare existing PSPS mitigation gap solutions, then identified remaining PSPS mitigation gaps and opportunities to further improve operational area coordination. This collaborative project produced PSPS improvement suggestions recommended to the County of San Diego Board of Supervisors for review.

FUNDING OPPORTUNITIES

OES will continue to pursue funding opportunities from a variety of sources to implement some of the working group recommendations that have associated costs. Some funding sources may include further State funding through the Community Power Resiliency Program, FEMA Hazard Mitigation grant program, FEMA Building Resilient Infrastructure and Communities (BRIC) grant program, America Rescue Plan Act (ARPA) funding, and private donations. It is also important to note that the FEMA grant programs have a non-federal cost share that could be up to 25 percent of the total project cost.

RECOMMENDATIONS

OES staff recommends the County of San Diego Board of Supervisors review the PSPS improvement suggestions outlined in the “Working Group Survey Results” section of this report.

OES staff will collaborate with other County of San Diego departments and PSPS partners to explore the implementation and resource needs associated with the PSPS improvement recommendations.

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