



& WILDFIRE SAFETY

2022 Public Safety Power Shutoff (PSPS) Preparedness

July 13, 2022



Grid Hardening & Mitigation Efforts

Jonathan Woldemariam, Director of Wildfire Mitigation

SDG&E Committed to Risk Reduction



WMP Progress

45%

Reduced fault rate on the distribution system

84%

Reduced fault rate on the transmission system

100%

of HFTD drone inspections completed in 2022

100%

Ignition reduction when sensitive relay settings enabled

100%

Ignition reduction from fuses in HFTD

12,500

Trees per year with enhanced vegetation clearance

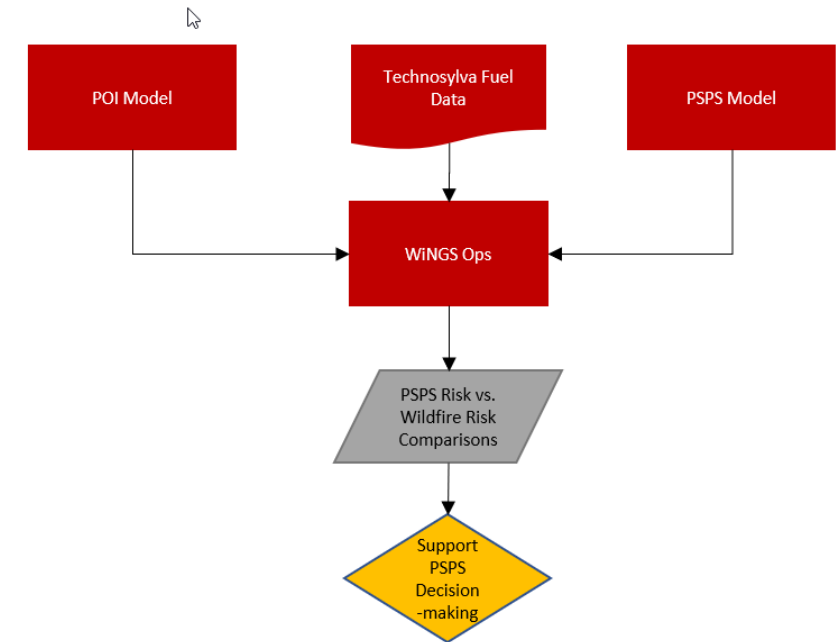
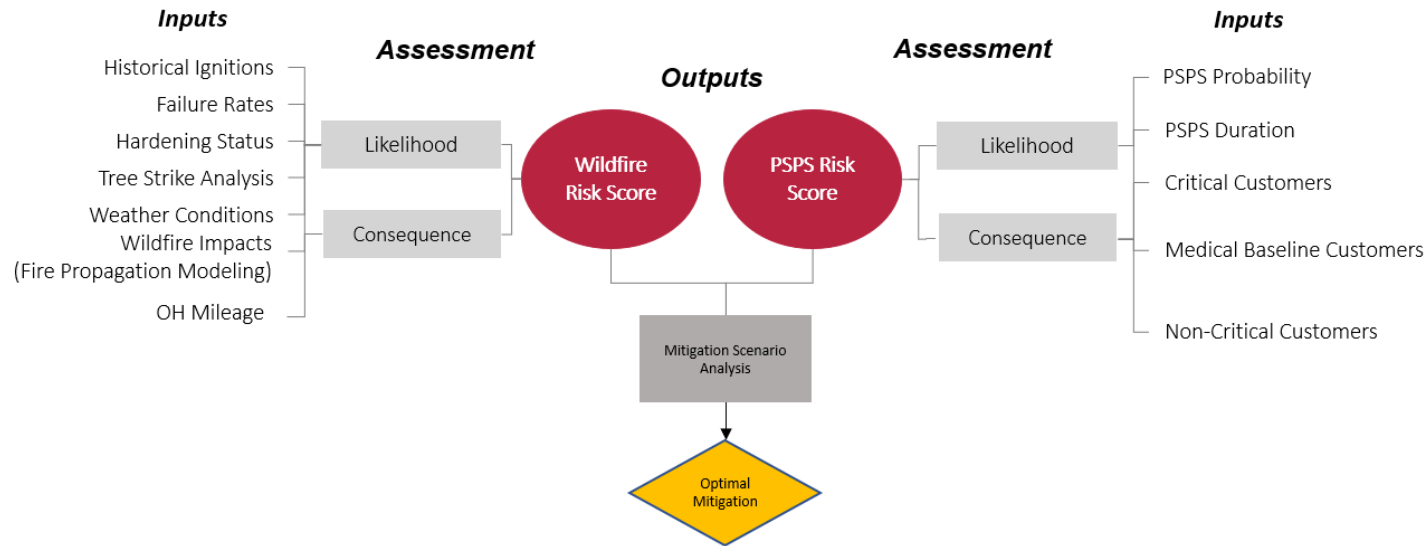
Reducing wildfire risk & PSPS impacts through:

- **Advanced risk modeling & situational awareness** leveraging artificial intelligence
- **Continued grid hardening** by increasing strategic undergrounding & covered conductor to achieve further reductions on distribution fault rate
- **Increased customer support** by expanding AFN support services & leveraging renewable resources
- **Ongoing preparation** through EOC exercises, community outreach, public education & public safety partnerships

Risk Assessment Overview



Wildfire Next Generation System (WiNGS)



2022 Year to Date Accomplishments

- Implemented new WRRM model to improve consequence modeling
- Significantly progressed automation of WiNGS Planning model
- Continued migration of risk models to Amazon Web Services (AWS)
- Improved model predictive power by incorporating additional data sources
- Upgraded WiNGS Ops and Planning dev environment to Azure Dev Ops

2022 Year-End Plan







- Implement model pipelines in AWS for enhanced automations
- Develop software application for improved user-model interactivity and visualizations
- Complete automation of WiNGS Planning model
- Deploy WiNGS Planning model to AWS
- Wind-based vegetation POF model deployed in AWS by 9/1

PSPS Mitigations – Projections & Results



Reduced Number of Customers Impacted

| 3-Year Proposed Total | 2022 Projected Total | 2021 Total | 2020 Total |
|-----------------------|----------------------|------------|------------|
| 30,830 | 7,145 | 9,961 | 13,724 |

| | 2022 Projections | YTD* 2022 Results | Since 2020 | | 2022 Projections | YTD* 2022 Results | Since 2020 |
|--|---|--|--|---|---|--|--|
|  PSPS Sectionalizing | 10 Locations 4,607 Customers | 6 Locations 7,508 Customers | 34 Locations 22,589 Customers |  Situational Awareness | 8 Camera Installations 20 Weather Station Upgrades | 3 Camera Installations 3 Weather Station Upgrades | 21 Camera Installations 76 Weather Station Upgrades |
|  Strategic Undergrounding | 65 Miles 2,533 Customers | 11.07 Miles 708 Customers | 41.5 Miles 518 Customers |  Covered Conductor | 60 Miles | 12.6 Miles | 43.1 Miles |
|  Microgrids | 2 Locations 5 Customers | 1 Location 1 Customer | 6 Locations 578 Customers |  Traditional Hardening | 5 Miles | 24.66 Miles | 438.5 Miles |

*YTD as of 6/30



Public Education/Notifications

Zoraya Griffin, Senior Communications Manager



Notifications & Communications



2021 Customer Feedback

- Increase amount of notifications/updates
- Accuracy of notifications/updates
- Simplification of PSPS webpage & PSPS App
- Understanding of the PSPS customer journey and available resources
- In-event translation service at CRC's
- Increase public education Spanish delivery

2022 Enhancements

- Expanded notifications
- Release of SDG&E Alexa Skill
- PSPS webpage simplification & streamline
- Increased public education – PSPS customer journey experience
- Increased resources/assistance promotion – Wildfire Safety Fairs, CRCs, in-event communications
- CRC onsite translation services available, including ASL
- Customized Tribal communications and channel expansion
- Increased year-round local media engagement
- Dedicated Spanish communications team
- Increased testing of public awareness



Public Awareness & Communications



Augmented and diverse communications tools used to inform customers before and during PSPS events



Before Event

Year-long public education campaign • TV, Radio, streaming radio, social media, digital, print PSAs • Online Influencers • Wildfire Safety Fairs & In-community events • In-community newsletters, newspapers, community social media pages • Community bulletins/posters, Community Stores, Supermarkets, Laundromats, Barber Shops • Airport, train and bus depots video monitor messaging • Athletic Events- stadium ads • Increased media and journalist education effort • Message amplification by CBOs & partners • Public education in-language & accessible communications • Simplified PSPS & Wildfire Safety webpages • Power outage & preparedness videos • Multiple customer & CBO surveys & research • Dedicated Spanish communications team



During Event

Leverage 20+ diverse communications platforms • Hyper-local targeting via Nextdoor • Media & journalist outreach • PSPS mobile app & radio PSAs • In-community & roadside signage & flyer distribution • Message amplification by CBOs & partners • Customer notification refinement to accommodate in-language & AFN customers



PSPS Website Overview

Key Features and Content

- **Address lookup tool**
 - Customers can input their address and see if they are at risk, de-energized, patrolling or re-energized.
- **Map with affected areas** (heat map technology; AFN)
- **Customers and communities** at risk and shut off
 - Updated in real-time as customers are de- and re-energized
- **Community Resource Centers (CRCs)**
 - CRC look-up (customers input their address to find closest CRCs)
 - Addresses, amenities, hours and more information.
- **AFN** resources, landing page and personalized experience.

2022 Enhancements and Outlook

- **Accessibility:** Partnered with Center for Accessible Technology (C4AT) to build best-in-class accessible website and mobile app; implemented AudioEye tool.
- Utilized **customer feedback** from 2021 event, e.g. adding Google map links to CRCs and font size for customers affected.
- Improved **mobile experience**, better layout elements, font sizing.
- Website is built on Amazon Web Service's (AWS) cloud infrastructure.
 - Web servers auto-scale based on traffic and bandwidth needs increase.
- Utilizes a Content Delivery Network (CDN) and Web Application Firewall (WAF) to ensure stability and performance ("Black Friday" performance)
- Coded "lite" to help low-bandwidth customers

Public Safety Power Shutoff
Forecasted weather conditions could affect the power lines that serve local communities. We are actively monitoring the potential for adverse weather conditions. These conditions may require us to turn off the power for public safety. If we do turn off power, it will stay off until we can safely restore it. Find more information at the [Public Safety Power Shutoff](#) page.

For real-time outage information, check out our [Outage Map](#).

Public Safety Power Shutoffs
We are actively monitoring the potential for adverse weather conditions. These conditions may require us to turn off the power for public safety.

Are you impacted? Enter your address to find out:

Current Customers Affected

| Communities Shut Off | Number of Customers Shut Off |
|--|------------------------------|
| <ul style="list-style-type: none"> • Descanso • Dulzura • Jamul (portions of) • Potrero • Valley Center | 2,726 |

Potential Customers Affected

| Potential Communities | Potential Number of Customers |
|--|-------------------------------|
| <ul style="list-style-type: none"> • Boulder • Crestwood • Jacumba • Pine Valley • San Marcos (portions of) | 5,293 |

Community Resource Centers
The following CRCs are open from 8 a.m. to 6 p.m.

| Community | Facility | Address |
|-----------|-----------------------------------|---|
| Descanso | Descanso Branch Library | 9545 River Dr, Descanso, CA 91916 |
| Potrero | Potrero Community Center | 24550 Highway 94, Potrero, CA 91963 |
| Jacumba | Jacumba Highland Community Center | 44645 Old Highway 80, Jacumba, CA 91934 |

Resources for Individuals with Access and Functional Needs
We have partnered with 2-1-1 San Diego and 2-1-1 Orange County to assist individuals with access and functional needs (AFN), for more information dial 2-1-1 or visit their website: 211sandiego.org or 211oc.org.

Sign up for Alerts
Stay informed by signing up for outage notifications.

© 1998-2019 San Diego Gas & Electric Company. The trademarks used herein are the property of their respective owners. All rights reserved.





AFN/MBL & Customer Resources

Danielle Kyd, AFN Customer Strategy Manager

AFN Expanded Support in 2022



Data

Enhanced database of individuals with AFN + self-identification campaign



PSPS Support

Renewed and expanded partnership opportunities



Accessibility

24/7 on-demand American Sign Language (ASL) comms., fully accessible websites & notifications



Community Partners

45 dedicated High Fire Threat District partners - increased support



Medical Baseline

Trained In Home Support Services Staff to increase outreach & dedicated marketing campaigns



Marketing + Research

Robust marketing campaign & dedicated AFN research panel

AFN PSPS Support



Community Resource Centers

Enhanced support including privacy screens, signage, dedicated parking and on-site ASL interpretation



Tribal Communities

Southern Indian Health Council (SIHC) & Indian Health Council (IHC) partners provide resiliency items, generators and other needs to tribal communities



Centralized Resource Hub

211 San Diego and 211 Orange County connect customers to resources and direct support from 1,000+ orgs (24/7/365, in 200+ languages)



Food Support

SD Food Bank & Feeding SD partners provide mobile food pantries at rural, tribal and PSPS sites, with warm food provided as needed



Transportation

FACT paratransit partnership provides accessible transportation to customers' location of choice



Hotel Stays

Salvation Army partnership provides no-cost hotel stays



Community - Based Organization Coordination

- Enhanced PSPS engagement efforts targeting trusted CBOs located in or reach customers in HFTD
- Wildfire Safety Fairs located in Ramona, Julian, Alpine and Valley Center
- Mini-Wildfire Safety Fairs in targeted communities within HFTD





Community Resource Centers (CRCs)

Mark Mezta, Fire Science & Climate Adaptation Manager

2022 CRC Operational Strategy



Locations and Support Offerings:

- 11 indoor CRCs are available*
- 3 new mobile CRCs available for deployment
- **Standard Services** are provided at each location
 - Warm meals
 - Cell phone charging
 - Power inverters
 - Blankets

*Net change from 2021 is zero. Boulevard replaced Jacumba due to greater community benefit.



Comprehensive Site List: <https://www.sdge.com/wildfire-safety/community-resource-centers>






Backup Generation Programs

Jon Kochik, Customer Integrated Solutions Manager

Backup Generator & Battery Programs



| Program | Generator Grant Program | Generator Assistance Program | Standby Power Programs |
|---------------------------------------|---|---|---|
| <p>Overview</p> | <p>Portable backup battery provided to qualifying MBL or AFN customers in the HFTD at no charge (active Jun-Dec)</p>  | <p>Portable fuel generator & backup battery (portable power station) rebates for qualifying HFTD customers, additional rebate for CARE customers (active Jun-Dec)</p>  | <p>Provides a permanent generator to customers that have a high risk of experiencing a PSPS</p>  |
| <p>2022</p> | <ul style="list-style-type: none"> • Target: 600 - 700 batteries • Including AFN with disabilities, temp-sensitive and self-identified • Online customer request form • Continuing to evaluate program options for 2022 and 2023 | <ul style="list-style-type: none"> • Target: 1,250 rebates • Update rebate process to allow purchase at additional retailers • Include more models with safety features to qualified product list • Higher rebates for portable power stations | <ul style="list-style-type: none"> • On track towards 3yr target of 900 • Integrate & test non-fossil fuel solutions • Continue to expand mobile home parks, schools, critical facilities & Community Resource Centers candidates |
| <p>Program Results to Date</p> | <ul style="list-style-type: none"> • 3,802 delivered since 2019 • Streamlined process for active PSPS deliveries and Indian Health Council • 98% of customers very satisfied, 94% very prepared | <ul style="list-style-type: none"> • 2,040 rebates provided since 2020 • 88% of customers are somewhat to very satisfied with rebate process | <ul style="list-style-type: none"> • 558 residential generators installed, with 296 currently in process • 6 commercial installed, with 15 currently in process • Began installation of Mobile Home Park resilience solution (solar + battery) |



Public Safety Partner Coordination

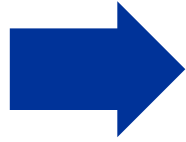
Elaine Mezta, Emergency Management Program Manager

Partner Outreach and Engagement



Local Government Outreach

- Listening Sessions
- Webinars
- EOC Tours
- Quarterly Contact Update
- Notifications Exercise



Tribal Outreach

- Tribal Emergency Manager EOC Tour
- Listening sessions
- Survey and focus groups
- Feedback implementation



Liaison Functions

- Trained Liaison Officers to embed in local EOCs
- Ability to host partner Agency Representatives
- Coordination with local governments, public safety partners and tribes

PSPS Portal – Partner View



SDGE PARTNER PORTAL | Manage Content | Partner Accounts | Logout

Page Updated: 2:56 PM, Sun 5/30/21

Public Safety Power Shutoffs are in effect.

▲ Potentially Impacted
● Currently Impacted

5,293 Customers | 655 Medical Baseline (MBL) | N/A Critical Facilities | 1,538 Customers | 112 Medical Baseline (MBL) | 97 Critical Facilities

Impacted Areas

Filter by Status
Copy All Outage Information

| Community Name | Status | Devices Affected | Copy |
|--------------------------|---------------------------------------|---|----------------|
| Alpine | ■ | 10 devices (2 currently impacted, 8 potential outage) | 📄 |
| East San Juan Capistrano | ■ | 10 devices (2 inspecting, 3 currently impacted, 5 potential outage) | 📄 |
| Fallbrook | ■ | 11 devices (8 inspecting, 3 currently impacted) | 📄 |
| Oceanside | ■ | 8 devices (8 potential outage) | 📄 |
| San Clemente | ■ | 3 devices (3 currently impacted) | 📄 |

All dates and times are approximate.

Outage Map

Search capability

Can show only one status at a time

Expandable rows

SDGE PARTNER PORTAL | Manage Content | Partner Accounts | Logout

Page Updated: 2:56 PM, Sun 5/30/21

Public Safety Power Shutoffs are in effect.

▲ Potentially Impacted
● Currently Impacted

5,293 Customers | 655 Medical Baseline (MBL) | N/A Critical Facilities | 1,538 Customers | 112 Medical Baseline (MBL) | 97 Critical Facilities

Impacted Areas

Filter by Status
Copy All Outage Information

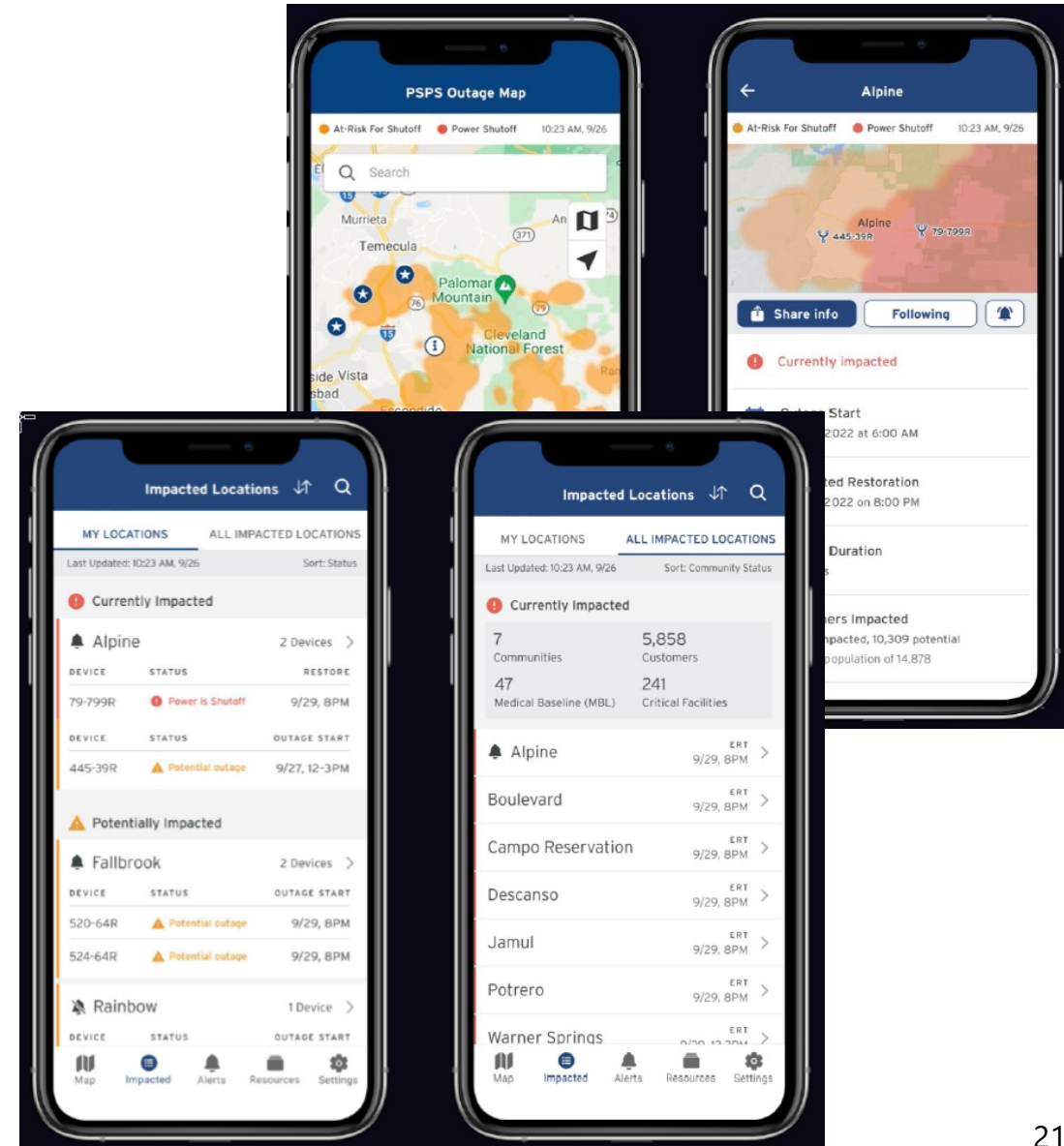
| Community Name | Status | Devices Affected | Copy |
|--------------------------|---------------------------------------|---|--------------------------------|
| Alpine | ■ | 10 devices (2 currently impacted, 8 potential outage) | 📄 |
| Sectionalizing Device | Status | Ext Outage Start Date/Time | Ext Restoration Date/Time |
| 73-765R | ● Currently impacted | Sun 5/30/21 at 3:30 PM PT | Mon 5/31/21 at 1:00-5:00 PM PT |
| 1166-18R | ● Currently impacted | Sun 5/30/21 at 3:30 PM PT | Mon 5/31/21 at 1:00-5:00 PM PT |
| 145B-454 | ▲ Potential outage | Sun 5/30/21 at 3:00 - Mon 5/31/21 at 4:00 PM PT | Mon 5/31/21 at 1:00-5:00 PM PT |
| 357-1299R | ▲ Potential outage | Sun 5/30/21 at 3:00 - Mon 5/31/21 at 4:00 PM PT | Mon 5/31/21 at 1:00-5:00 PM PT |
| 367-147R | ▲ Potential outage | Sun 5/30/21 at 3:00 - Mon 5/31/21 at 4:00 PM PT | Mon 5/31/21 at 1:00-5:00 PM PT |
| 73-643R | ▲ Potential outage | Sun 5/30/21 at 3:00 - Mon 5/31/21 at 4:00 PM PT | Mon 5/31/21 at 1:00-5:00 PM PT |
| 7B-26R | ▲ Potential outage | Sun 5/30/21 at 3:00 - Mon 5/31/21 at 4:00 PM PT | Mon 5/31/21 at 1:00-5:00 PM PT |
| AL-12KV-355 | ▲ Potential outage | Sun 5/30/21 at 3:00 - Mon 5/31/21 at 4:00 PM PT | Mon 5/31/21 at 1:00-5:00 PM PT |
| AL-12KV-357 | ▲ Potential outage | Sun 5/30/21 at 3:00 - Mon 5/31/21 at 4:00 PM PT | Mon 5/31/21 at 1:00-5:00 PM PT |
| LL-12KV-1166 | ▲ Potential outage | Sun 5/30/21 at 3:00 - Mon 5/31/21 at 4:00 PM PT | Mon 5/31/21 at 1:00-5:00 PM PT |
| East San Juan Capistrano | ■ | 10 devices (2 inspecting, 3 currently impacted, 5 potential outage) | 📄 |
| Fallbrook | ■ | 11 devices (8 inspecting, 3 currently impacted) | 📄 |

Each community now has several rows nested underneath to display incoming sectionalizing device data

Public Safety Partner Mobile App



- Going live Sept. 2022
- Near real-time mapping capability with a link to secure GIS portal
- Ability to “follow” multiple jurisdictions
- Ability to customize push notifications
- Devices listed by community with impact information
- Resource page for additional resources
 - Social media kit
 - 24/7 contact information
 - Community flyer





Critical Infrastructure Coordination

Alex Moffat, Manager of Business Services

Critical Facilities & Infrastructure (CFI)



Meetings & Feedback

Partnerships

- Partnered with Telcos to ensure SDG&E's 800 numbers are not listed as SPAM

Webinars

- Two webinars planned with Critical Facilities & Infrastructure - late July & early August

Feedback

- Streamline outreach efforts for information gathering

Outreach & Resources

- Annual assessment of **1,400** unique CFI customers' emergency preparedness
 - Revised emergency preparedness survey
 - Updates to **27k+** CFI accounts (contacts, BUG capabilities, emergency preparedness)
 - Inform customers of resiliency and emergency preparedness
- Dedicated CFI website

Resources

- SDG&E does not provide emergency backup generation
- Emergency backup generation is considered during events where health, life or safety of the community is at risk



Exercise Lessons Learned

Jessica Kunert, Emergency Management Training Manager



2022 PSPS Opportunities



| Improvement Opportunity | 2022 Programmatic Responses |
|---|---|
| <ul style="list-style-type: none"> The primary public safety partner notification system degraded forcing the successful use of back-up processes with no impact to notifications. | <ul style="list-style-type: none"> The technical problem was identified and corrected. Currently updating documentation and training to ensure responders can activate secondary protocols. |
| <ul style="list-style-type: none"> Segments of the PSPS notification process were not completed in sequence. | <ul style="list-style-type: none"> Successfully piloted an approval process and codifying into documentation and training. |
| <ul style="list-style-type: none"> Increased number of new Emergency Operations Center responders. | <ul style="list-style-type: none"> Incorporated basic EOC procedures into Summer Readiness Training. Developing targeted training for new responders. |
| <ul style="list-style-type: none"> Limited sandbox environments strain exercise realism. | <ul style="list-style-type: none"> Developing a proposal to design training environments for applicable systems. |

Thank you