# 2021 San Diego Gas & Electric Co. (SDG&E) Public Safety Power Shutoffs (PSPS) Preparedness Staff Briefing #2

July 1, 2021



### Agenda

1:00 - 1:10 p.m. Introduction

Dru Dunton, California Public Utilities Commission

1:10 – 1:40 p.m. SDG&E Presentation Alex Kim, Jonathan Woldemariam, and Augie Ghio; San Diego Gas & Electric Co.

1:40 - 2:55 p.m. Q&A

2:55 – 3:00 p.m. Closing Remarks

### Thanks to our Presenters, Panelists and Hosts

The Wildfire Safety and Enforcement Branch (WSEB) would like to extend our thanks to:

- The electric Investor-Owned Utilities that have thoughtfully prepared their presentations to the CPUC regarding their readiness for the 2021 Wildfire/PSPS season.
- Panelists/Moderators from the CPUC, Cal OES, and CALFIRE for bringing your subject matter expertise to these fora.
- CPUC Information Technology Host Robert Stanford and Associates.

### **Presenters**

### San Diego Gas & Electric Co.:

Alex Kim, Director—Customer Programs (akim@sdge.com)

Jonathan Woldemariam, Director—Wildfire Mitigation & Vegetation Management (<u>jwoldemariam@sdge.com</u>)

Augie Ghio, Director—Emergency Management (<a href="mailto:aghio@sdge.com">aghio@sdge.com</a>)

### Panelists (Panelists may attend one or more of the second Staff Briefings, June 30-July 2)

Panelist/Moderator	Representing
Mike Massone	Cal OES, Response Operations at California
Vance Taylor	Cal OES, Office of Access and Functional Needs
Jeff Fuentes	CALFIRE, Utility Fire Mitigation, Office of the State Fire Marshall
Jack Chang	CPUC, Climate and Equity Initiatives Section, Energy Division
Jonathan Lakey	CPUC, Customer Generation, Energy Division
Nathan Sarina	CPUC, Electric Safety Reliability Branch
Agatha Wein	CPUC, Outreach, Executive Division
Naveed Paydar	CPUC, Outreach, Executive Division
Dani Tutt	CPUC, Resiliency and Microgrids, Energy Division
Pat Saxton	CPUC, Resiliency and Microgrids, Energy Division
David Van Dyken	CPUC, Risk Assessment and Safety Analytics, Safety Policy Division
Anil Balivada	CPUC, Service Quality and ETC, Communications Division
Michael Truax	CPUC, Transportation Electrification, Energy Division
Kenneth Holbrook	CPUC, Tribal Advisor, Executive Division
Tony Noll	CPUC, Wildfire Safety and Enforcement Branch, Safety and Enforcement Division

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### Purpose of 2021 IOU PSPS Preparedness Briefings

- Assess overall preparedness.
- Gauge the status of protections in place for vulnerable populations.
- Determine if actions have been taken to minimize the risk of wildfire.
- Evaluate readiness of notification and communications systems.
- Ensure that lessons learned have been implemented.

### Housekeeping

- Attendees are muted.
- Briefing is being recorded.
- 2<sup>nd</sup> briefing presentations are short and straight-through; hold questions until the end.
- Questions guidelines:
  - Keep them brief
  - More complex questions can be batched into a data request.
  - Questions about the implementation of Phase 3 Guidelines (D.21-06-034) and the OII into the 2019 PSPS (D.21-06-014) should be considered carefully because these decisions have been issued only recently and may be taken up in the Public Briefings.
- Response guidelines:
  - Keep them as brief and fact-based as time permits.
  - Full, accurate responses may require research. You are welcome to respond at a later time. I will be tracking follow-ups.
- Survey form distributed after the briefing via email using the Microsoft Teams platform.
- Recording A link to the recording will be included in the same email as the survey.





### 2021 Wildfire & PSPS Preparations

**CPUC Briefing #2** 

July 1, 2021

### Agenda

- 1. Communications Carriers
- 2. Critical Facilities
- 3. Medical Baseline
- 4. Public Education & Outreach
- 5. Website Usage
- 6. Mitigation: Backup Generators
- 7. Mitigation: Backup Storage
- 8. Mitigation: Grid Hardening
- 9. Virtual EOC Tours
- 10. Public Safety Partner Feedback
- 11. Public Safety Partner Portal



### **Communications Carriers**

There are six major communication carriers that hold 82% of total accounts.

Communication Carriers in SDG&E Service Area as of June 25, 2021	% of Communication Carriers in SDG&E Service Area contacted to assess their needs for Backup Generation
10,109 accounts	100%



### **Critical Facilities**



### Critical facilities and infrastructure by category in SDG&E's service area

Emergency Services Sector: Police Stations	Emergency Services Sector: Fire Stations	Emergency Services Sector: Emergency Operations Centers	Emergency Services Sector: 9-1-1 Services	Government Facilities Sector: Schools	Government Facilities Sector: Jails and Prisons	Healthcare and Public Health Sector: Public Health Departments
79	262	33	N/A**	1,586	25	143
Healthcare and Public Health Sector: Medical Facilities	Energy Sector: Public and Private Facilities Vital to Service	Water and Wastewater Systems Sector	Communications Sector	Chemical Sector	Transportation Systems Sector	Total critical facilities (all categories)
310	323	521	10,109	303	4,516	18,730*

Data as of June 25, 2021

<sup>\*</sup> Totals represent critical facilities as defined in the Phase 1 and 2 decisions in R.18-12-005. Changes to SDG&E's list of critical facilities pursuant to the revised definition adopted in the Phase 3 decision in R.18-12-005 will be incorporated by Sept. 1, 2021.

<sup>\*\* 9-1-1</sup> Services are currently incorporated in the Emergency Operations Centers category.

### **Medical Baseline**

Sempra Energy utility®

SDG&E customers enrolled in the Medical Baseline Program for June 1, 2019 present

	Enrollment as of June 1, 2019 (approx.)	Enrollment as of June 1, 2020 (approx.)	Enrollment as of June 1, 2021 (approx.)
Total	51,000	57,000	66,000
HFTD	9,000	11,000	12,000

### **Public Education & Outreach**



#### **Diverse Communications & Outreach Channels**

- Dedicated PSPS education campaign
  - Service territory-wide, year-round campaign
  - Customized Tribal and AFN communications
  - Increase understanding of PSPS criteria what it is and why it's done
- Leverage 20+ diverse communication platforms
- More than 128 million impressions (engagements) forecasted
- Host 6 wildfire safety webinars and 5 wildfire safety fairs
- Partner with more than 200 community-based organizations
- Communicate in 21 prevalent languages in service territory and American
   Sign Language

#### **Call to Action Messaging**

- Update contact information
- Sign up for notifications
- Download PSPS app
- Prepare your home and family

#### **Key Tactics & Timeline**

MARKETING TACTICS	Q1	Q2	Q3	Q4
Print advertising				
Outdoor Advertising				
Television/Radio				
Social Media Advertising				
Digital Advertising				
Customized AFN campaign				
Website and video update				
Updated PSPS Notifications				
In-studio media interviews				
Strategic story pitching				
Social media (Organic)				
Print collateral				

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### **PSPS Marketing Product Examples**

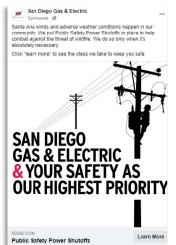


### SAN DIEGO GAS & ELECTRIC & WILDFIRE SAFETY

**Expanded campaign for 2021** 

#### **Social & Digital Media**









#### **Out-of-Home**



Bus Wrap



Ice Box Wrap



### **Website Usage**



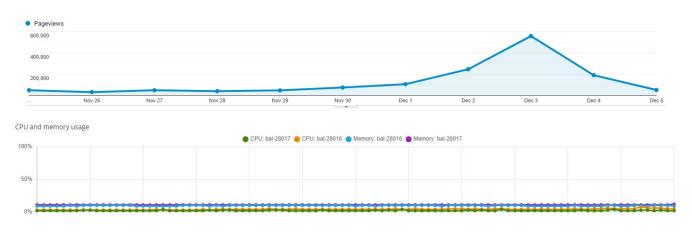
#### **Stability and Performance**

To address the increased demand:

- Host SDGE.com on AWS (cloud), including elasticity and scalability to increase web servers as traffic and bandwidth increase
- Utilize a Content Delivery Network (CDN) that caches the page to different regions. This improves reliability and page load times
- Created "load balanced" servers to route traffic to different web servers
- Separated application and database servers to ensure peak performance

#### Web Traffic/Web Server Analytics

Early December 2020 PSPS events



As site traffic increased, CPU and memory performance was not affected

### **PSPS Website**

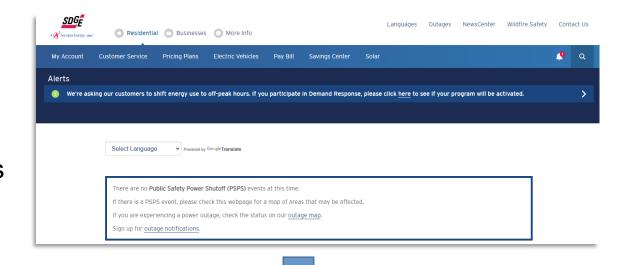


During a PSPS event, updated information is available at SDGE.com/PSPS



#### When there is no event:

- Background information including video
- De-energization and restoration policies
- PSPS process
- Notification explanation
- PSPS resources
- CRC information
- FAQ
- Reports from prior PSPS events
- AFN information



There are no **Public Safety Power Shutoff (PSPS)** events at this time.

If there is a PSPS event, please check this webpage for a map of areas that may be affected.

If you are experiencing a power outage, check the status on our <u>outage map</u>.

Sign up for outage notifications.



Demonstration of SDG&E Website Accessibility

### **PSPS** Website

When PSPS customer notifications are issued 48 hours prior to an event, the PSPS dashboard is launched in parallel at sdge.com/Ready



#### When there is an active event

- Customers can find an address look-up tool
- Map with affected areas
- Customers and communities at risk and shut off
- AFN resources and 2-1-1 contact information
- Available Community Resource Centers (CRC)

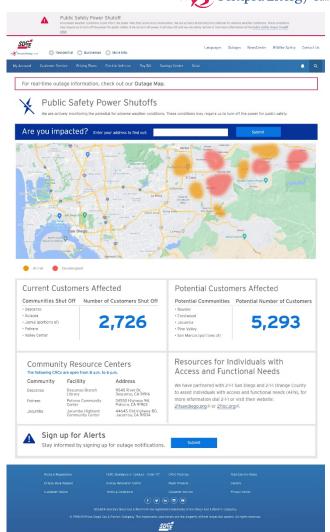


#### Public Safety Power Shutoff

Due to a Fire Weather Watch issued by the National Weather Service, we notified approximately 2,700 customers of potential Public Safety Power Shutoffs beginning Friday morning. Find more information at the Public Safety Power Shutoff page.



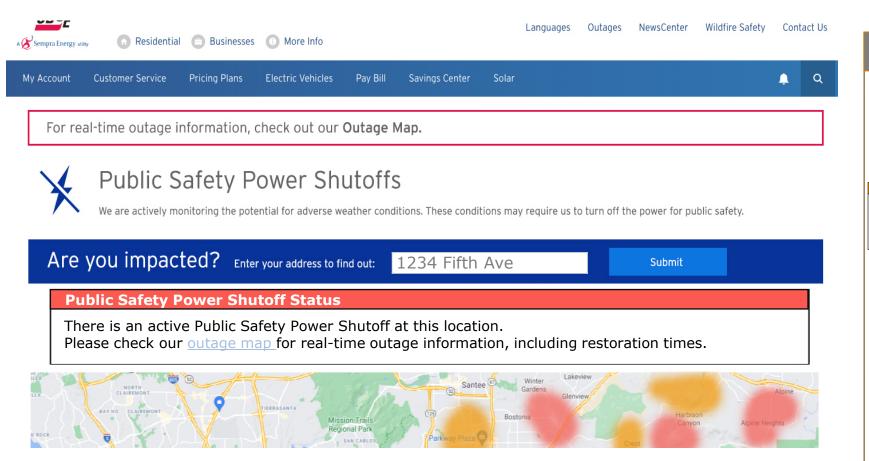




### **PSPS Website – Address Lookup**



#### An address look up feature is available to customers to confirm PSPS outages



#### Potential address look-up results

#### **Public Safety Power Shutoff Status**

This location is currently **not at risk** of being impacted by a Public Safety Power Shutoff, though surrounding areas may be.

Please check out our outage map for real-time outage information.

#### **Public Safety Power Shutoff Status**

This location is currently at risk of being impacted by a Public Safety Power Shutoff.

Please check out our outage map for real-time outage information.

#### **Public Safety Power Shutoff Status**

There is an active Public Safety Power Shutoff at this location.

Please check out our <u>outage map</u> for real-time outage information, including restoration times.

#### **Public Safety Power Shutoff Status**

There is an active Public Safety Power Shutoff at this location. Patrolling has started, and we are determining when power can be restored.

Please check out our outage map for real-time outage information.

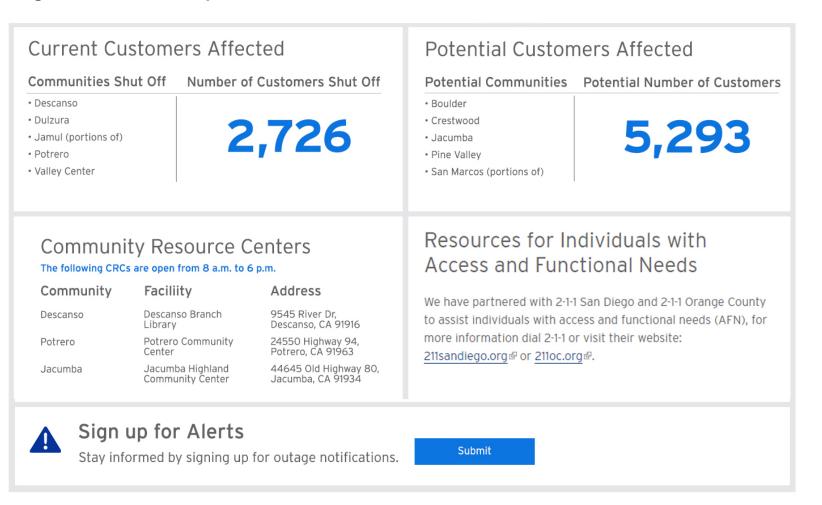
#### **Public Safety Power Shutoff Status**

Power has been restored to this location.

### **PSPS Website - Event Information**



During a PSPS, the public can access a dashboard with event and resource information





### Mitigation: Backup Generators

Sempra Energy utility®

Backup generators provided to critical facilities customers in 2019, 2020 and planns

2019	2020*	2021**	Total (actual + planned)
0	4	4	4

<sup>\*</sup> Includes temporary generators

for 2021

<sup>\*\*</sup> Includes microgrids.

### **Mitigation: Battery Storage**

Number of battery storage devices provided to customers through SDG&E's General or Grant Assistance Program in 2019, 2020 and planned for 2021, as well as the maximum performance in hours

	2019	2020	2021 (planned)	Total (actual + planned)
Number of customers provided with devices	65	1,420	2,000	3,485
Maximum performance (hours)*	3,055	66,740	94,000	N/A

\*Using CPAP as an example, 65 Wh CPAP with fully charged Yeti 3000x = 47 hours of runtime per clarge. Source: Goal Zero Tech Specs Yeti 3000X Portable Power Station | Goal Zero / Goal Zero

www.sdge.com/ggp



### Mitigation: Grid Hardening

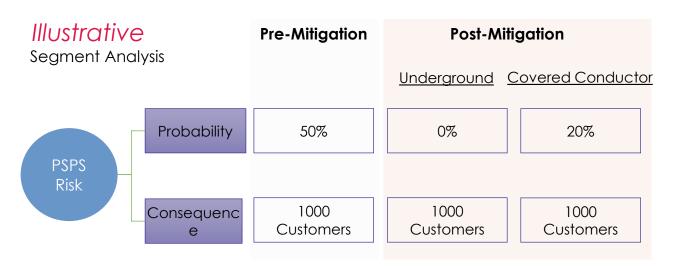


#### **Near Term**

- PSPS Sectionalizing devices can reduce scope of PSPS
- Backup power programs can reduce the impact of PSPS to customers

#### **Long Term**

 WiNGS-informed grid hardening strategies to reduce wildfire risk and PSPS impacts



#### **Key Considerations**

- Circuit topology may require multiple segments on a circuit to be hardened in order to realize full benefits
- Full segment hardening is necessary to maximize benefits to customers
- Hardening projects take 18 24 months to implement
- Circuit hardening status is a key consideration in PSPS decision-making

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## Overhead Distribution Hardening Efficacy



Before Hardening			After Hardening				
	Avg Faults	Avg years	Fault Rate*	Avg Faults	Avg years	Fault Rate*	Reduction in Fault Rate
	1.73	17.68	9.24	0.12	2.33	4.92	46.8%

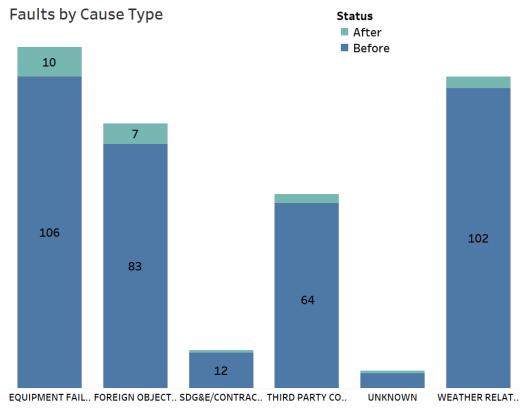
Overhead bare-conductor hardening reduces the risk of faults that can lead to ignition by 46.8%

- Utilized twenty years of reliability data
- Analyzed over 400 miles of hardened overhead distribution
  - Hardened defined as having both high-strength conductor and steel poles
- Results statistically significant at 95% confidence interval

# Overhead Hardening – Faults by Cause Type



Primary Cause	Unhardened	Hardened	Unhardened fault rate	Hardened fault rate	Rate Change
Equipment Failure	106	10	2.64	1.89	28.3%
Foreign Object In Line	83	7	2.07	1.32	35.9%
SDG&E/Contractor Contact	12	1	0.30	0.19	36.7%
Third Party Contact (Non-SDG&E)	64	3	1.57	0.57	63.8%
Unknown	5	1	0.12	0.19	-51.9%
Weather Related	102	4	2.54	0.76	70.2%
ALL TYPES	372	26	9.24	4.92	46.8%



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### **PSPS Reduction Over Time**



Risk-informed grid hardening measures support long-term vision of reducing PSPS impacts

Mitigation	How it Reduces PSPS	Outcomes	
<b>Covered Conductor</b>	Allows utility to raise threshold <sup>1</sup> for de-energization		
Undergrounding	Reduces necessity of shut-off	Scope of PSPS	
PSPS Sectionalizing	Enables more targeted de-energization	Coope on the	
Microgrids	Keeps communities energized during shut-off	Francisco of DCDC	
Fixed Backup Power	Keeps customers energized during shut-off	Frequency of PSPS	
Resiliency Grant Programs	Provides backup solutions to keep critical appliances/equipment energized during shut-off	Duration of PSPS	
Resiliency Assistance Programs	Provides instant rebates to customers to purchase backup generators to reduce their PSPS impacts		

<sup>1)</sup> Adjustments to de-energization thresholds based on new mitigations such as covered conductor are still under development

### 2021 PSPS Mitigation Measures & Impact Reduction



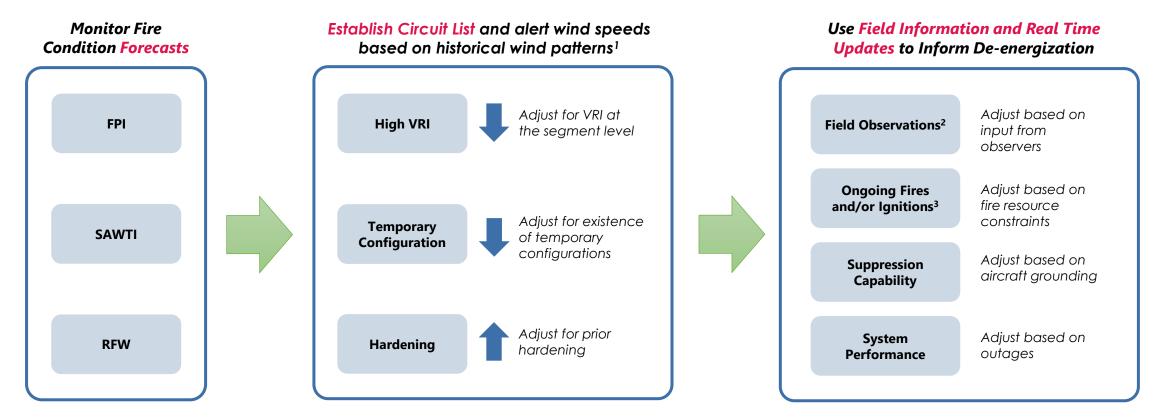
WMP Program	2021 Number of Locations	2021 Customer PSPS Impact Reduction
PSPS Sectionalizing	10	5,000
Fixed Backup Power	413	413
Resiliency Grant Programs	~	2,000
Resiliency Assistance Programs	~	1,250
Microgrids	4	578
Undergrounding	9	1,127
Total		11,000*

<sup>\*</sup>Weather events will dictate the actual number of customer impact reductions

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### **PSPS Decision-Making Framework**



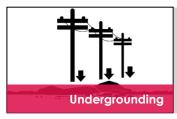


- 1) If fire potential is not extreme, it can also inform adjustments to alert wind speeds
- 2) Field observations do not change alert speeds
- 3) Ongoing fires does not adjust alert speeds but rather adjusts our PSPS decision making when reaching alert speed

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### Wildfire Risk Reduction & PSPS Impact Mitigation









Completed since 2019 46.1 miles installed







uparaded

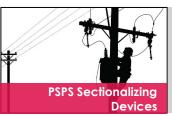








Completed since 2020 3.1 miles installed

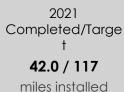


2021 Completed 6 / 10 devices installed

60% complete

Completed since 2019 29 sectionalizing devices installed







Completed since 2019





Generator

On Track

Completed since 2020

2.683 Generators provided to eliaible customers





Cal Fire approved

fuses installed

**17**% complete

Completed since 2019

6.337

Cal Fire approved fuses installed



2021 Completed/Targe 10.841 / 10.815 inspections

Generators

provided to

eligible customers

100 % complete

Completed since 2020 22.315 inspections



2021 Completed/Targe

5.539/17.000 Trees trimmed to

enhanced

clearances

29% complete Completed since 2019

28.781 Trees trimmed to enhanced clearances



2021 Completed/Targe
t
223/ 2,715
inspections

8% complete

Completed since 2020 1.677 inspections

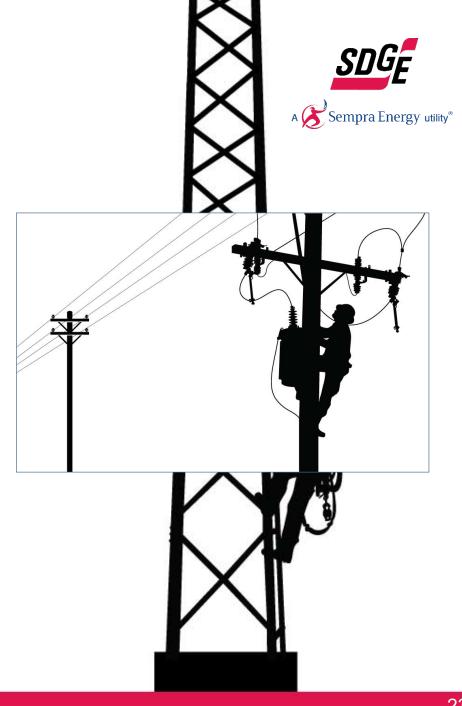
### **Virtual EOC Tours**

#### Virtual EOC tours consist of

- Overview of Emergency Management department and key programs
- Overview of Fire Science & Climate Adaptation department and the key programs
- PSPS protocol overview

#### Annual invitees include

- Senior and elected officials
- Regional Emergency Managers
- **Public Safety Partners**
- Other utility agency representatives
- Fire & Law representatives
- Local community-based organization representatives
- Tribal partners



### Public Safety Partner Feedback 2020 Survey Results



**Great**: "We are very fortunate to have our local utility company take a proactive approach in emergencies and natural disasters. SDG&E has led the example in our state."

- Rich George, San Diego County Sheriff

**Good**: "Communications to our Office of Emergency Services was good. OES relayed the information to us."

— Jeff Moneda, San Diego County Department of Public Works

Fair: "Might almost be too much? Flood of emails before and after event."

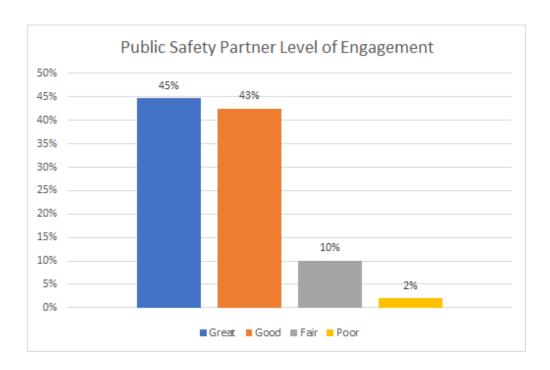
— Anonymous

<u>Steps taken to address</u>: Streamlined language of emails with input from the public safety partners focus group and will include message information in the PSPS secure portal.

**Poor**: "Residents have indicated that notification to them of power coming back on was poor. Power was back on before the initial notice by phone that they would be restored."

— Anonymous

<u>Steps taken to address</u>: Increased capacity of auto-dialer to more quickly complete delivery of outbound customer notifications.



### **PSPS Secure Portal**



Developed with input from stakeholder interviews representing multiple disciplines

- CalOES, San Diego County OES and local jurisdictional emergency managers
- Tribal governments
- Fire agencies

Once a portal rendering created, the focus group was asked for additional feedback

Testing with partners will begin in August 2021.







"I would take a screenshot to share with leadership."



"I would love it if this was a tool that I can rely on all the time."



### **Escalation Path**



Flyer distributed to public safety partners to include:

- Three 24/7 contacts in the SDG&E EOC prior to season
- Email address to update contact information
- GIS file information
- Notification flow

Information above will also be available on the PSPS Secure Portal.

Critical Infrastructure customers have an assigned Account Executive

#### BE PREPARED FOR **PUBLIC SAFETY POWER SHUTOFF**

In the event of a Public Safety Power Shutoff, SDG&E₀ will aim to send early warning notifications via phone calls, text alerts, emails and other means before turning

We are currently working with our public safety partners to ensure they have updated contact information on file so that we will be able to reach them before, during and after a Public Safety Power Shutoff event. Additionally. we are providing 24-hour contacts for SDG&E so that our public safety partners can contact us if needed.



The California Public Utilities Commission defines Public Safety

- · First/emergency responders at the local, state, and federal level
- Water / Wastewater
- · Affected community choice aggregators
- · Publicly-owned utilities/electrical cooperatives
- · The California Public Utilities Commission
- . The California Governor's Office of Emergency Services
- . The California Department of Forestry and Fire Protection Public safety partners

To update your contact information with SDG&E, please email the following information:

- NameOrganization Name
- 24-hour phone number
- 24-hour phone number for text (if different from above)
- Email address

To: ESEODSDGE@semprautilities.com

Continued on back ->



#### **GIS AND NOTIFICATION** PROTOCOLS

#### GIS Shape Files

SDG&E will share GIS shapefiles with our public safety partners via a secure data transfer site. The shape files will contain the de-energized boundary, affected circuits, and number of medical baseline customers. Please use this map in conjunction with the regional critical

Secure file transfer instructions will be emailed to Public Safety Partners at time of first

#### Fire Service Notifications

Fire service notifications will occur at 2 levels:

- Fire leadership will be notified with advanced notice and at the onset
- Fire stations if a fire station is within the area to be de-energized, the fir

#### Law Enforcement Notifications

- · Law Enforcement notifications will occur at 2 levels:
- Law Enforcement leadership will be notified with advanced notice and at the onset of each phase of the event.
- Law Enforcement stations if a police/sheriff station is within the area to be de-energized, the law dispatch center covering that jurisdiction will be notified.

#### Local Jurisdiction, including Tribal Partners, Notifications

Local jurisdictions will be notified as follows:

- Elected officials and Senior staff will be provided advanced notice and at the onset of
- Emergency Management If a local jurisdiction or the primary/secondary EOC location is within, or adjacent to, the area to be de-energized, Emergency Managers for that jurisdiction will be notified. Primary Contact:

Primary Contact: Emergency Management Duty Officer (858) 503-5152 Secondary Contact: Government Liaison Duty Officer (858) 503-5450 Tertiary Contact: Fire Coordinator Duty Officer (858) 503-5152

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### **Best Practices**

### Readiness best practice is shared during:

- Regional Emergency Managers meetings
- Public Safety Partner webinars
- Regional PSPS AFN Working Group meetings

### Additional collaboration opportunities:

- Joint trainings
- After-Action Review workshops





### **Closing Remarks**

Survey form – distributed after the briefing via email using the Microsoft Teams platform.

### Schedule of Remaining Briefings

- ❖ PG&E Staff Briefing #2 July 2<sup>nd</sup> 10:00 a.m. 12:00 p.m.
- ❖ SMJU Public Briefing August 2<sup>nd</sup> 9:00 a.m. 12:00 p.m.
- ❖ SDG&E Public Briefing August 2<sup>nd</sup> 2 p.m. 5 p.m.
- SCE Public Briefing August 3<sup>rd</sup> 9:00 a.m. 12:00 p.m.
- PG&E Public Briefing August 3rd 1 p.m. 4 p.m.



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Questions?

Contact Dru Dunton at dd4@cpuc.ca.gov