2020 Public Safety Power Shutoff Readiness

August 10, 2020
Public Safety Power Shutoff Readiness

2019 Public Safety Power Shutoff (PSPS) Overview

2020 Fire Season Outlook

PSPS Mitigations – Potential Impact Reductions

Communications and Outreach

Coordination

Situational Awareness, Inspection, and Patrol Enhancements

Pandemic PSPS Preparations
Wildfire Risk in SDG&E Service Area

Service territory area in HFTD*

Overhead miles in HFTD

Customer accounts in HFTD

Weather stations planned to support PSPS in 2020

Service territory underground

Inventory trees in HFTD

* HFTD – High Fire Threat District

- 4,100 Square Miles
- 1.4 Million Electric Meters
- 3.6 Million Electric Customers
# 2019 Public Safety Power Shutoff Overview

<table>
<thead>
<tr>
<th>EVENT DETAILS</th>
<th>OCT 10-11</th>
<th>OCT 24-25</th>
<th>OCT 30-31</th>
</tr>
</thead>
<tbody>
<tr>
<td>METERS IMPACTED</td>
<td>395</td>
<td>19,000</td>
<td>27,700</td>
</tr>
<tr>
<td>CIRCUIT SEGMENTS</td>
<td>4</td>
<td>62</td>
<td>84</td>
</tr>
<tr>
<td>AVERAGE METERS PER SEGMENT</td>
<td>99</td>
<td>333</td>
<td>304</td>
</tr>
<tr>
<td>AVERAGE OUTAGE DURATION</td>
<td>20 HRS</td>
<td>24 HRS</td>
<td>24 HRS</td>
</tr>
<tr>
<td>LONGEST OUTAGE DURATION</td>
<td>23 HRS</td>
<td>57 HRS</td>
<td>33 HRS</td>
</tr>
<tr>
<td>PEAK WINDS MPH</td>
<td>47</td>
<td>78</td>
<td>68</td>
</tr>
<tr>
<td>COMMUNITY RESOURCE CENTERS (CRCs) &amp; COMMUNITY INFORMATION CENTERS (CICs) OPEN</td>
<td>2 CRCs</td>
<td>7 CRCs &amp; 2 CICs</td>
<td>7 CRCs &amp; 2 CICs</td>
</tr>
<tr>
<td>DAMAGE/ HAZARDS</td>
<td>0</td>
<td>5</td>
<td>10</td>
</tr>
</tbody>
</table>
2020 Fire Season Outlook

• Southern California is not currently under drought conditions, though Northern California is experiencing significant drought.

• Elevated fire potential will continue through the summer months.

• Periods of extreme fire potential likely during Santa Ana Wind conditions late September through November.

• Official fire agency forecasts predict normal “Significant Fire Potential” through September.

• Latest forecast indicate above normal "Significant Fire Potential" events October and November.
Wildfire Risk Mitigation | PSPS Enhancements

~25-30% reduction in customers impacted by PSPS as a result of additional enhancements*

<table>
<thead>
<tr>
<th>Solutions</th>
<th>Customer Impact Reductions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sectionalizing devices</td>
<td>14 Communities</td>
</tr>
<tr>
<td>Weather stations</td>
<td>5 Schools</td>
</tr>
<tr>
<td>Undergrounding</td>
<td>4 Fire Stations</td>
</tr>
<tr>
<td>Grid reconfiguration</td>
<td>1 Urgent Care Facility</td>
</tr>
<tr>
<td>Microgrids</td>
<td>33 Communication Sites</td>
</tr>
<tr>
<td>Local generation</td>
<td>5 Water Facilities</td>
</tr>
<tr>
<td>7,000/ 12,425**</td>
<td>27.7k customers</td>
</tr>
<tr>
<td>PSPS customer impacts mitigated</td>
<td>25% PSPS Reduction</td>
</tr>
</tbody>
</table>

* Compared to 2019 PSPS events
** Some mitigations have PSPS reductions that are weather dependent
Public Communication and Outreach

Multi-channel engagement strategy to educate and inform customers and general public

- Regional Partners
- Outbound Dialer
- PSPS Mobile App
- SDG&E Website
- Community Events
- Social Media
- Broadcast Media
- Digital Signage
- Notifications
- Med. Baseline Outreach
Supporting the Access & Functional Needs Population

Support the needs of AFN customers by building strong relationships with strategic community partners, sharing situational awareness information and facilitating connections.

### Approach

1. Facilitate discussions & feedback solicitation from AFN expert Advisory Councils and Working Groups

2. Expand partnerships with 2-1-1 San Diego and Orange County to assist in service delivery needed by AFN populations

3. Broaden network of ~200 Community Based Organizations to identify the needs of AFN customers

### Examples of Partner Services

- Readiness Support
- Amplified Notifications
- Assisted Transportation
- Food Security
- Resiliency Items
- Welfare Checks
PSPS Mobile App and Website

Digital channel enhancements, including a new mobile app and upgraded website

**PSPS Mobile App**
- Real-time status updates via push notifications for saved locations.
- Location-based status tracker, which communicates PSPS status and estimated restoration times.
- At-risk area map views – visibility of available Community Resource Centers.
- View address status without having to sign up for push notifications.
- Accessible to all, including non-account holders.

**PSPS Website**
- New dashboard layout – user friendly information.
- Responsive design and coding for page optimization and built with low-bandwidth customers in mind.
- Address look-up tool.
- Dynamic list of communities impacted and potential shutoffs, including real-time customer counts.
- Interactive GIS-based map.
- Community Resource Center information.
PSPS Maps for Public and Public Safety Partners

Address look-up tool allows customers to see if they are impacted by PSPS

Google-based map, responsive to any device

Hosted on Cloud to ensure stability and accessibility

Programmed to ensure faster page load for low-bandwidth customers

Website and mobile app use same map and data technology to ensure consistency

Public Maps

- Trout
- Oceanside
- San Marcos
- Valley Center

Customers access maps on SDGE.com and the mobile app

Public Safety Partner Maps

Uses maps and technology from ArcGIS Online (AGOL)

Public safety partners can go to map and select different layers, including:

- Potential at-risk communities, 48-72 hours in advance
- Planned at-risk communities (also 48-72 hours in advance)
- Current PSPS outages

Public safety partners access maps through a password-protected website

Hosted on Cloud to ensure stability and accessibility
Wildfire Resilience Webinars and Safety Fairs

- Hosted four Wildfire Resilience Webinars
- SDG&E subject matter experts from Vegetation Management, Meteorology, Emergency Management and Wildfire Resilience & Operations
- Drive through Wildfire Safety Fairs transitioned to fully contactless delivery approach
- External partners included
  - CALFIRE
  - American Red Cross
  - 211 San Diego
  - County Animal Services
## Enhanced Public Safety Partner Outreach

### Local Governments and First Responders
- Initial meetings with San Diego and Orange Counties’ Emergency Manager groups *(January 2020)*
- Briefings held with all Fire Agencies *(Monthly)*
- Law enforcement outreach *(June 2020)*
- Additional meetings to discuss a combined PSPS/pandemic response *(June 2020)*

### Critical Infrastructure
- Direct communication with newly identified COVID-19 medical facilities *(Ongoing)*
- Meetings with Association of California Water Agencies (pre-COVID-19) PSPS best practices discussion *(Quarterly)*
- Outreach to critical business customers to confirm contact information and back-up generation *(Ongoing)*

### Public Officials and Tribal Partners
- Tribal emergency manager meeting *(June 2020)*
- Targeting PSPS outreach and briefings to local including governments, including tribal *(June 2020)*

### Planning Exercises
- Workshops with public safety partners *(July/ August 2020)*
- Training Exercise, including CalOES/CPUC/County OES/CAL FIRE *(September 2020)*
## Customer Resiliency Enhancement – Generators

<table>
<thead>
<tr>
<th>Generator Grant Program (GGP)</th>
<th>Mobile Home Park Project (MHP)</th>
<th>Generator Assistance Program (GAP)</th>
<th>Whole House Generator Project (WHP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Baseline Customers 1,250 Grants</td>
<td>Four MHPs located in HFTD</td>
<td>HFTD Tier 3 and Low Income Rebate Program: 1,000 Rebates</td>
<td>Risk Spend Efficiency Model 300 Grants</td>
</tr>
<tr>
<td>Delivered 566 Portable Battery Units (as of July 24, 2020)</td>
<td>Finalizing contract with third party administrator</td>
<td>238 (27 CARE) rebates downloaded of 9,000 customers contacted</td>
<td>Finalizing contract with third party administrator</td>
</tr>
<tr>
<td>Completion by September 2020</td>
<td>Two completed by October 2020 Two completed by year-end</td>
<td>Rebate Coupons expire December 31, 2020</td>
<td>Initiate construction by September 2020</td>
</tr>
<tr>
<td>Goal Zero Yeti 3000 + multiple re-charging sources</td>
<td>Generac PWRcell</td>
<td>Duromax 5500 + handful of other widely available units</td>
<td>Generac 7173</td>
</tr>
</tbody>
</table>
### Customer Resiliency Enhancement – Microgrids in Progress

<table>
<thead>
<tr>
<th>Ramona Air Attack Base</th>
<th>Cameron Corners</th>
<th>Butterfield/Agua Caliente</th>
<th>Shelter Valley</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAL FIRE Air Support</td>
<td>CAL FIRE Station, a school, and telecom switching center (east San Diego County)</td>
<td>Desert community (far east San Diego County)</td>
<td>Desert community San Diego Fire Station Community Center (far east San Diego County)</td>
</tr>
<tr>
<td>U.S. Forest Service Air Support</td>
<td>Fire-retardant mixing stations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Portable generator in place</td>
<td>Portable fossil fuel generator will serve customers this fire season</td>
<td>Portable fossil fuel generator will serve customers this fire season</td>
<td>Portable fossil fuel generator will serve customers this fire season</td>
</tr>
<tr>
<td>Renewable source completion year-end 2020</td>
<td>Renewable source completion by July 2021</td>
<td>Renewable source completion by December 2021</td>
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Broader Situational Awareness – Fire Safe 3.0

30 Additional Weather Stations – enabling 30-second data reporting

Improved Wildfire Modeling – new fuels, vegetation and fire growth algorithms

Satellite Wildfire Detection – fire alert notifications in 20-30 seconds

AI-Based Forecasting System – improving alerting capability

New Academic Partnerships – moving fire science forward

Additional Cameras – increasing real-time situational awareness
Aerial Inspection, Patrol and Firefighting Enhancements

• Using drones for detailed inspections and aerial patrols

• Supporting PSPS
  – H145 Airbus dual engine helicopter
  – H135 Airbus dual engine helicopter (new in 2020)
  – Call-When-Needed (CWN) helicopter available within 24 hours
  – Additional CWN through Helistream- sole patrol flight providers due to experience on SDG&E system

• Firefighting Helicopters
  – Erickson Air Crane
  – UH-60 Blackhawk
PSPS Readiness: COVID-19 Enhanced Measures

• Additional pandemic PSPS planning and preparedness
  – Internal continuity assessment for safe response execution
  – Response processes include pandemic conditions

• COVID-19 specific exercises stress test a remote PSPS response
  – Emergency Operations Center (EOC) virtual response
  – Multiple event scenarios - active wildfire with PSPS and pandemic
  – Include local public safety partners

• Augmented operational response ensures employee and community safety
  – Drive-thru Community Resource Centers
  – Additional resources provided
    – Solar powered phone chargers
    – 12v power inverters
Questions