



**& WILDFIRE
SAFETY**

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

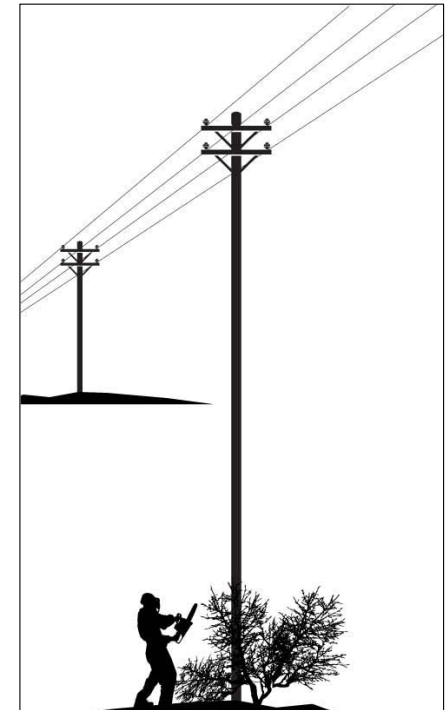
PSPS Mitigations – Potential Impact Reductions

Communications and Outreach

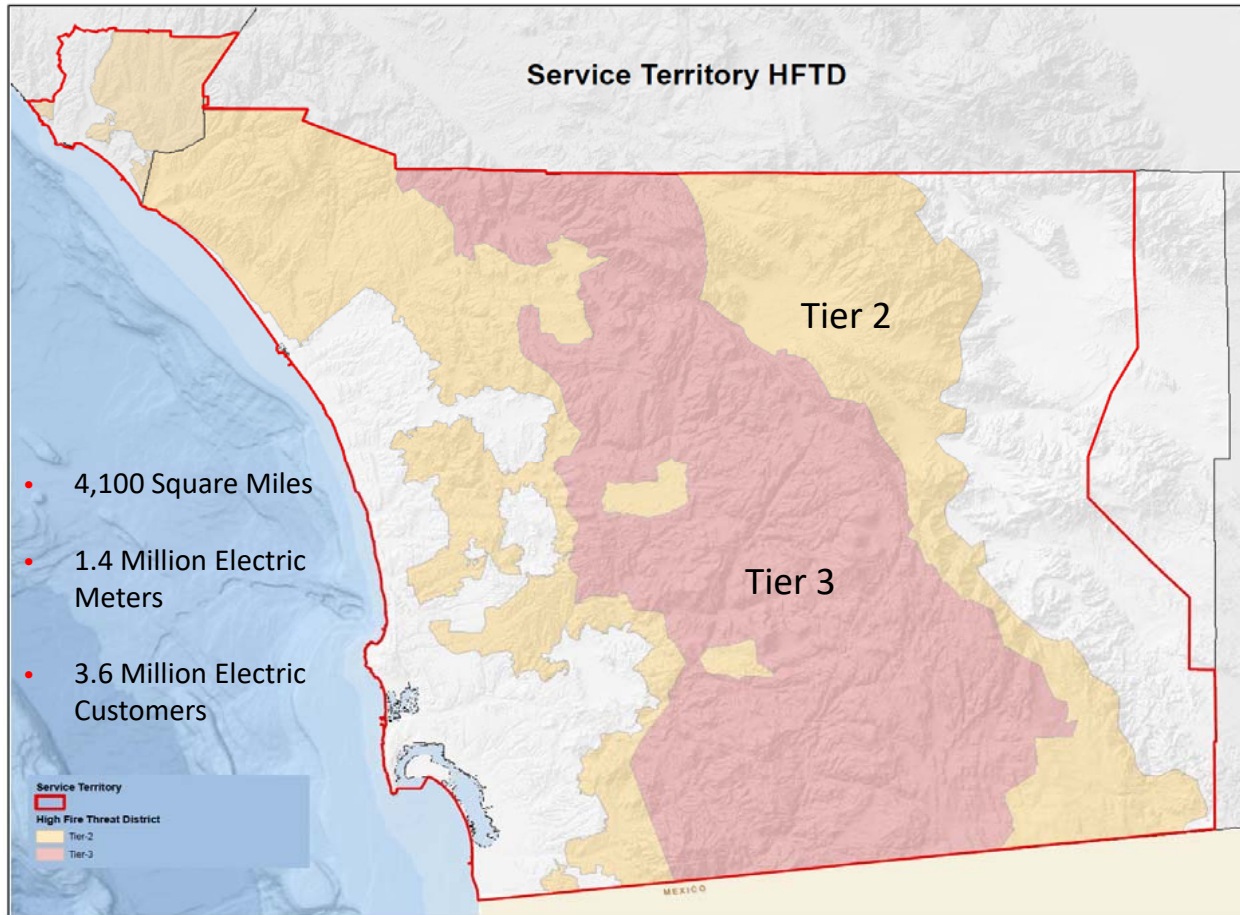
Coordination

Situational Awareness, Inspection, and Patrol Enhancements

Pandemic PSPS Preparations



Wildfire Risk in SDG&E Service Area



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64%

Service territory area in HFTD*

3,500

Overhead miles in HFTD

206K

Customer accounts in HFTD

220

Weather stations planned to support PSPS in 2020

61%

Service territory underground

53%

Inventory trees in HFTD

* HFTD – High Fire Threat District

2019 Public Safety Power Shutoff Overview



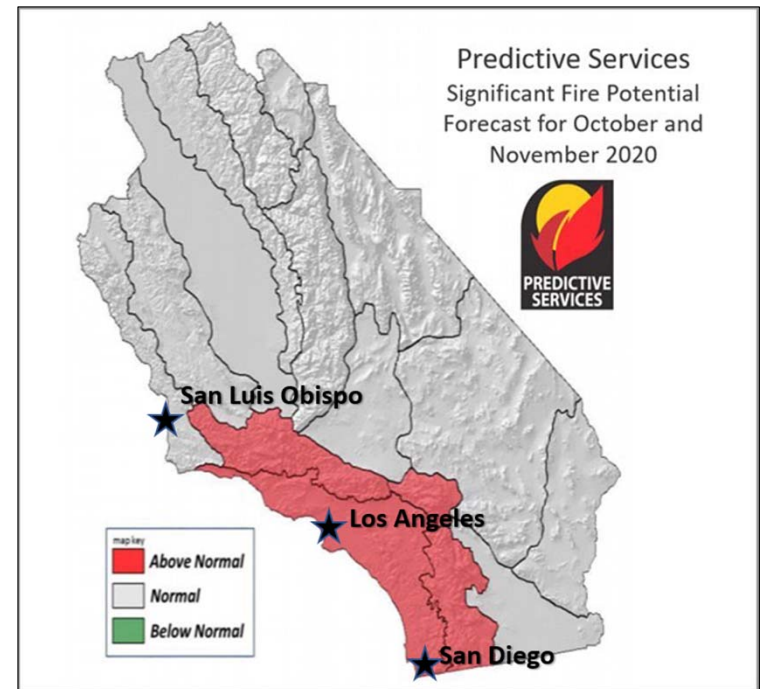
EVENT DETAILS	OCT 10-11	OCT 24-25	OCT 30-31
METERS IMPACTED	395	19,000	27,700
CIRCUIT SEGMENTS	4	62	84
AVGERAGE METERS PER SEGMENT	99	333	304
AVERAGE OUTAGE DURATION	20 HRS	24 HRS	24 HRS
LONGEST OUTAGE DURATION	23 HRS	57 HRS	33 HRS
PEAK WINDS MPH	47	78	68
COMMUNITY RESOURCE CENTERS (CRCs) & COMMUNITY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

2020 Fire Season Outlook



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- 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.



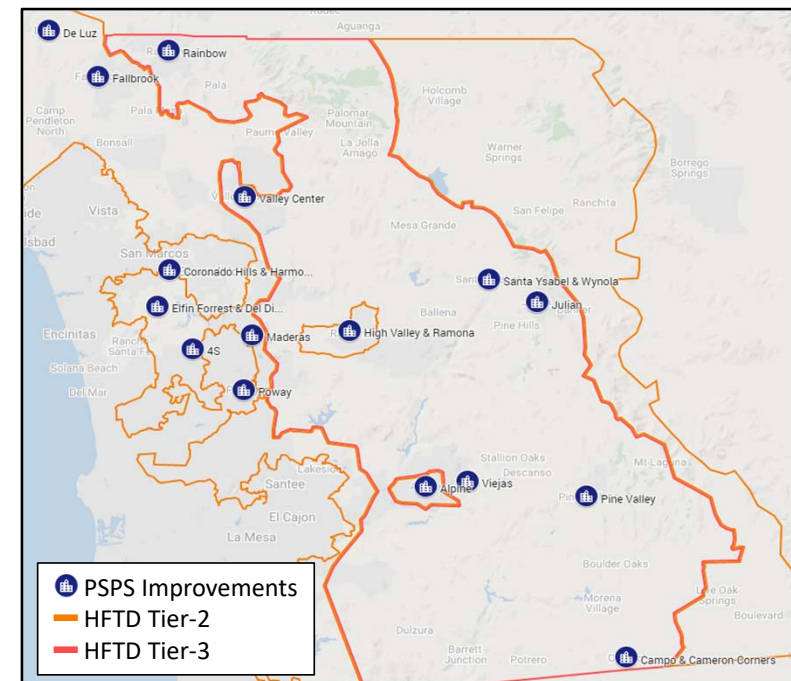
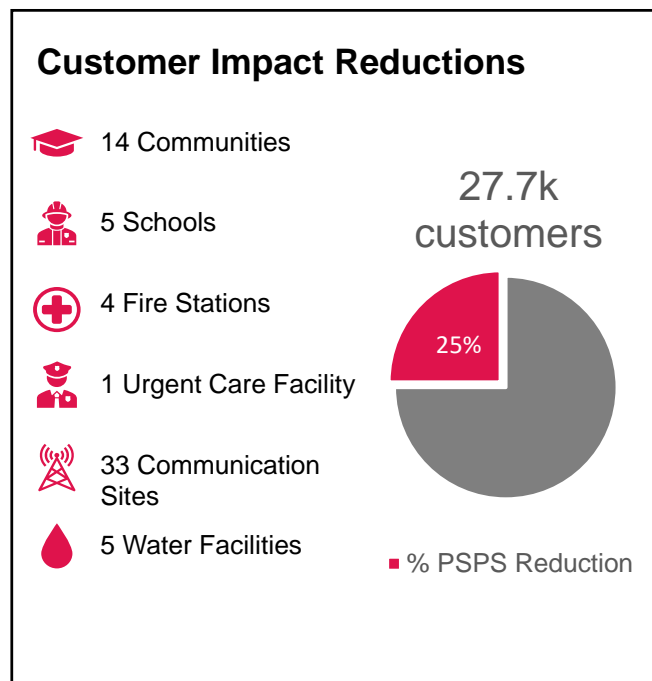
Wildfire Risk Mitigation | PSPS Enhancements



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

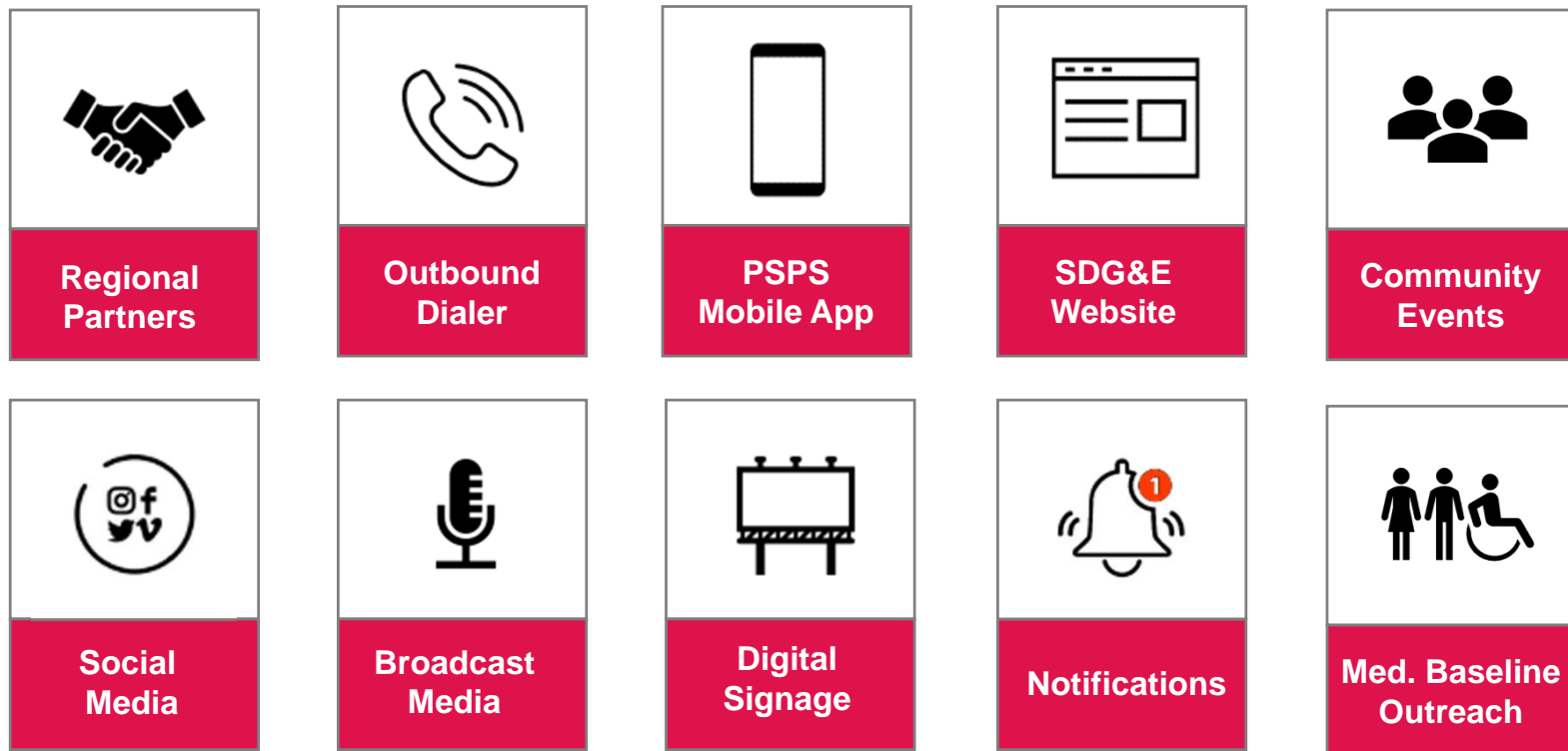
Solutions
Sectionalizing devices
Weather stations
Undergrounding
Grid reconfiguration
Microgrids
Local generation
7,000/ 12,425** PSPS customer impacts mitigated



* 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



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



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

PSPS Mobile App

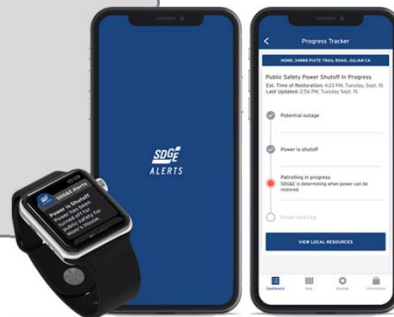
Real-time status updates via push notifications for saved locations.

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.

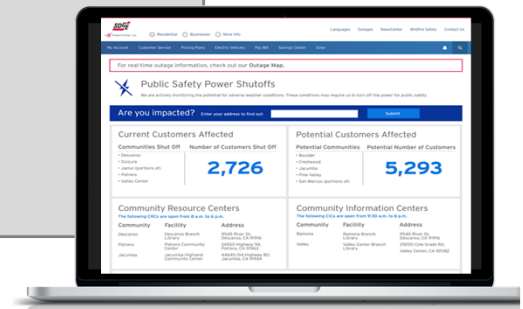
Responsive design and coding for page optimization and built with low-bandwidth customers in mind.

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



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Public Maps

Current Customers Affected		Potential Customers Affected	
Communities Shut Off	Number of Customers Shut Off	Potential Communities	Potential Number of Customers
<ul style="list-style-type: none"> Descanso Dutbury Jacum (portions of) Potrero Valley Center 	2,726	<ul style="list-style-type: none"> Boulder Crestwood Jacumbe Pine Valley San Marcos (portions of) 	5,293

Community Resource Centers			Community Information Centers		
Community	Facility	Address	Community	Facility	Address
Descanso	Descanso Branch Library	9545 River Dr, Descanso, CA 91996	Ramona	Ramona Branch Library	9545 River Dr, Descanso, CA 91996
Potrero	Potrero Community Center	24550 Highway 94, Potrero, CA 91963	Valley	Valley Center Branch Library	29000 Cole Grade Rd, Valley Center, CA 92082
Jacum					

Customers access maps on SDGE.com and the mobile app

Public Safety Partner Maps

Public safety partners access maps through a password-protected website

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

Hosted on Cloud to ensure stability and accessibility

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

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



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



Customer Resiliency Enhancement – Microgrids in Progress



Ramona Air Attack Base	Cameron Corners	Butterfield/Agua Caliente	Shelter Valley
CAL FIRE Air Support U.S. Forest Service Air Support Fire-retardant mixing stations	CAL FIRE Station, a school, and telecom switching center (east San Diego County)	Desert community (far east San Diego County)	Desert community San Diego Fire Station Community Center (far east San Diego County)
Portable generator in place	Portable fossil fuel generator will serve customers this fire season	Portable fossil fuel generator will serve customers this fire season	Portable fossil fuel generator will serve customers this fire season
Renewable source completion year-end 2020	Renewable source completion by July 2021	Renewable source completion by December 2021	Renewable source completion by December 2021
Energy Storage	Solar + Energy Storage	Solar + Energy Storage	Solar + Energy Storage



Broader Situational Awareness – Fire Safe 3.0

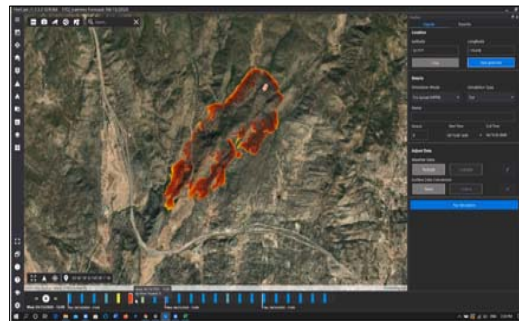


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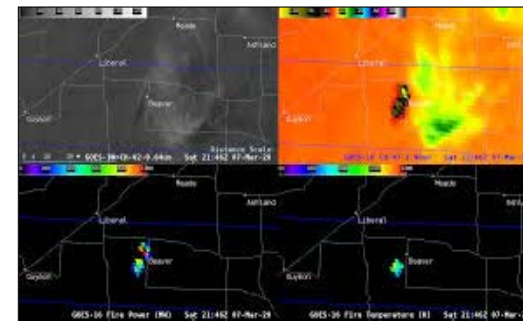
30 Additional Weather Stations –
enabling 30-second data reporting



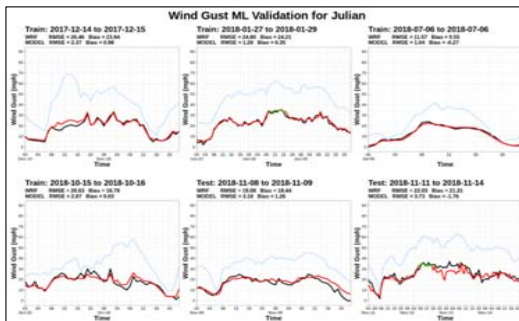
Improved Wildfire Modeling – new fuels, vegetation and fire growth algorithms



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

