



Annual Safety Culture & PSPS Briefing

August 19, 2025



Presenters & Panelists



Rob Borthwick
Chief Risk Officer, Sempra
Board Safety Committee Chair



Jonathan Woldemariam
Director - Wildfire Mitigation,
SDG&E



Kevin Geraghty
Chief Operating Officer &
Chief Safety Officer, SDG&E

Protecting the safety of the communities we serve is at the core of our values and the foundation of our business



SDG&E continues to pursue system enhancements, technologies and partnerships that:

- Strengthen and protect our electric and gas infrastructure
- Enhance data analysis and risk modeling to support proactive mitigation measures
- Support a strong safety culture that fosters continuous improvement and employee engagement
- Prepare communities for increasing hazards brought on by climate change



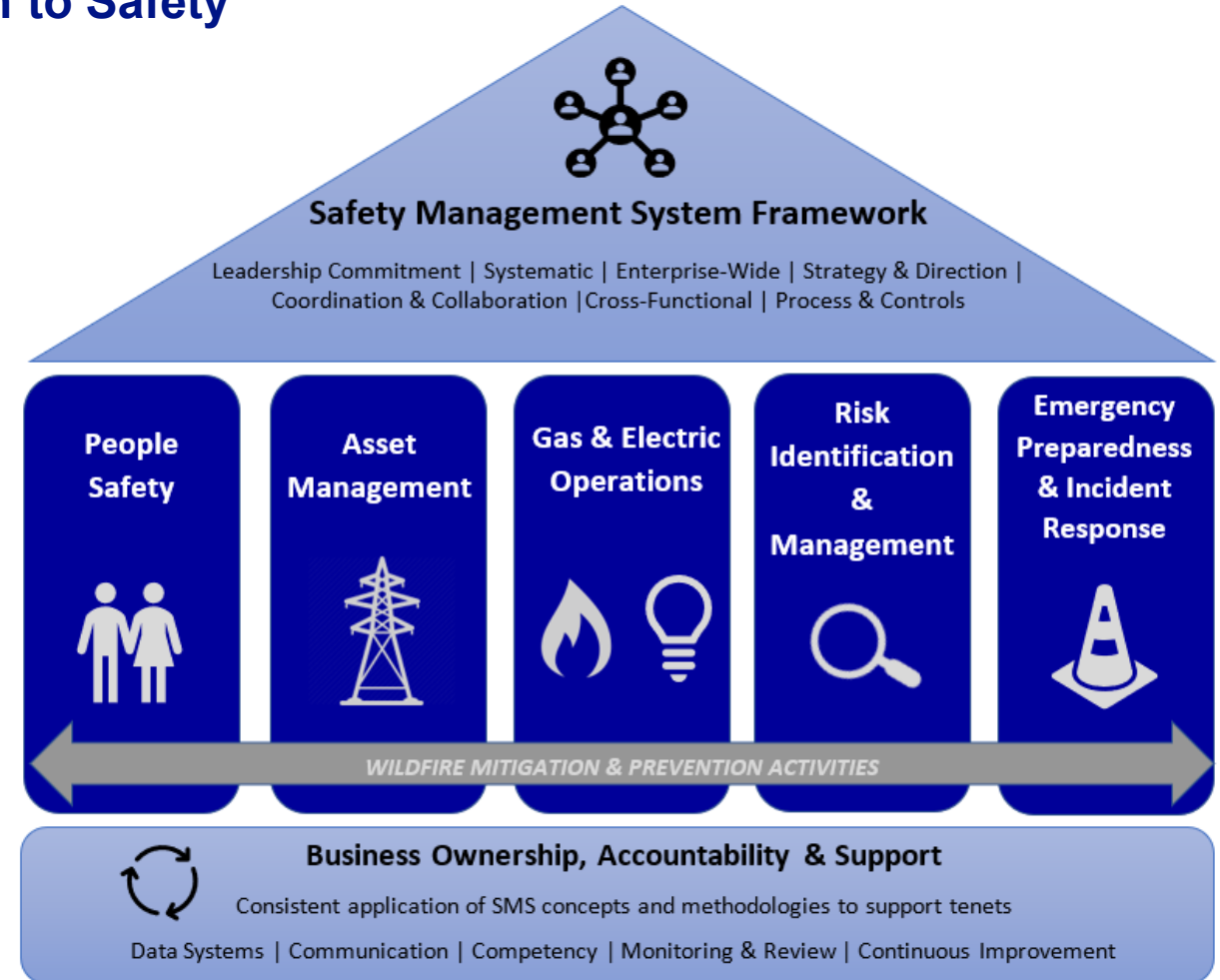
SDG&E's Safety Committee meets quarterly with Company management and operational leaders on safety topics



Safety Management System Framework

Enterprise-Wide Safety Management Drives Strategic and Operational Decisions for a Comprehensive, Proactive + Preventative Approach to Safety

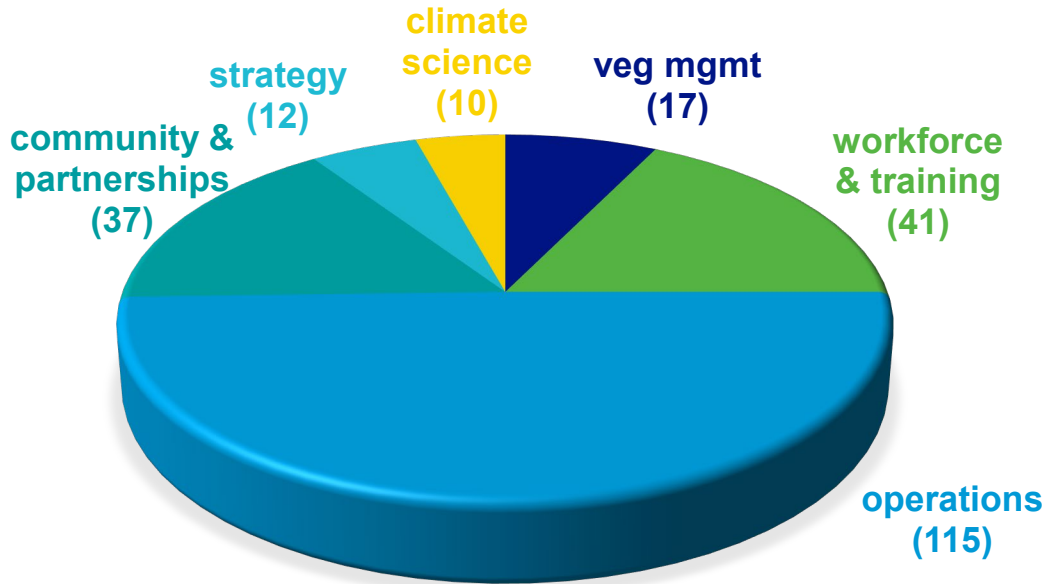
- Applies a holistic view of safety to include:
 - Employee & Contractor Safety
 - Public & Environmental Safety
 - Asset, System & Cyber Safety
 - Mental Health, Wellness & Psychological Safety
- Aligns and integrates our business; increases the sharing of information, best practices and lessons learned
- Applies standardized processes designed to meet safety excellence standards
- Uses increased data, analytics and feedback to proactively identify and drive mitigation of operational and other risks
- Follows the Plan-Do-Check-Act Cycle for continuous safety improvement



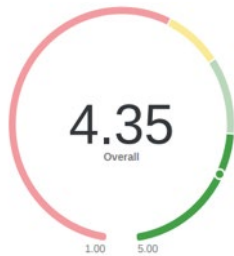
“Doubling Down” on Worker Feedback + Safety Suggestions

Soliciting and acting on input from those closest to the risk

Wildfire
Prevention
Listening
Sessions:
Categories of
Suggestions



2023 Safety
Culture
Assessment:
Employee +
Contractor
Perception
Survey



Average Response Score



COMMITMENT
TO SAFETY
CULTURE



POSITIVE
CONTRACTOR
RELATIONSHIPS



PRIORITIZATION
OF WORKER
SAFETY

Strengths

60 Ideas Carried Forward



Vegetation Management (4 initiatives)



Workforce & Training (13 initiatives)



Operations (24 initiatives)



Strategy (2 initiatives)



Community & Partnerships (15 initiatives)



Climate Science (2 initiatives)

REDUCE
PERCEIVED
PRESSURE TO
PERFORM AND
DISTRACTIONS

MITIGATE RISK
OF
INTERACTIONS
WITH THE
PUBLIC

TRACK
TRENDS IN
SAFETY EVENT
REPORTING

Improvement Opportunities

Kearny's VPP Certification & Safety Culture Transformation

VPP aims to create a partnership between OSHA, employers, and employees to foster a culture of safety and continuous improvement, resulting in lower injury and illness rates.

VPP Milestone



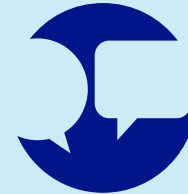
- Achieved Voluntary Protection Program (VPP) certification in November 2024
- First company in our industry in California to earn this prestigious recognition

Strong Safety Culture



- Building trust + fostering a speak-up culture
- Embedded safety into daily operations and decision-making
- Fostered a proactive mindset across all levels of the organization

Safety Communication



- Streamlined channels for hazard identification, reporting and feedback
- Increased transparency and responsiveness in addressing safety concerns

Frontline Engagement

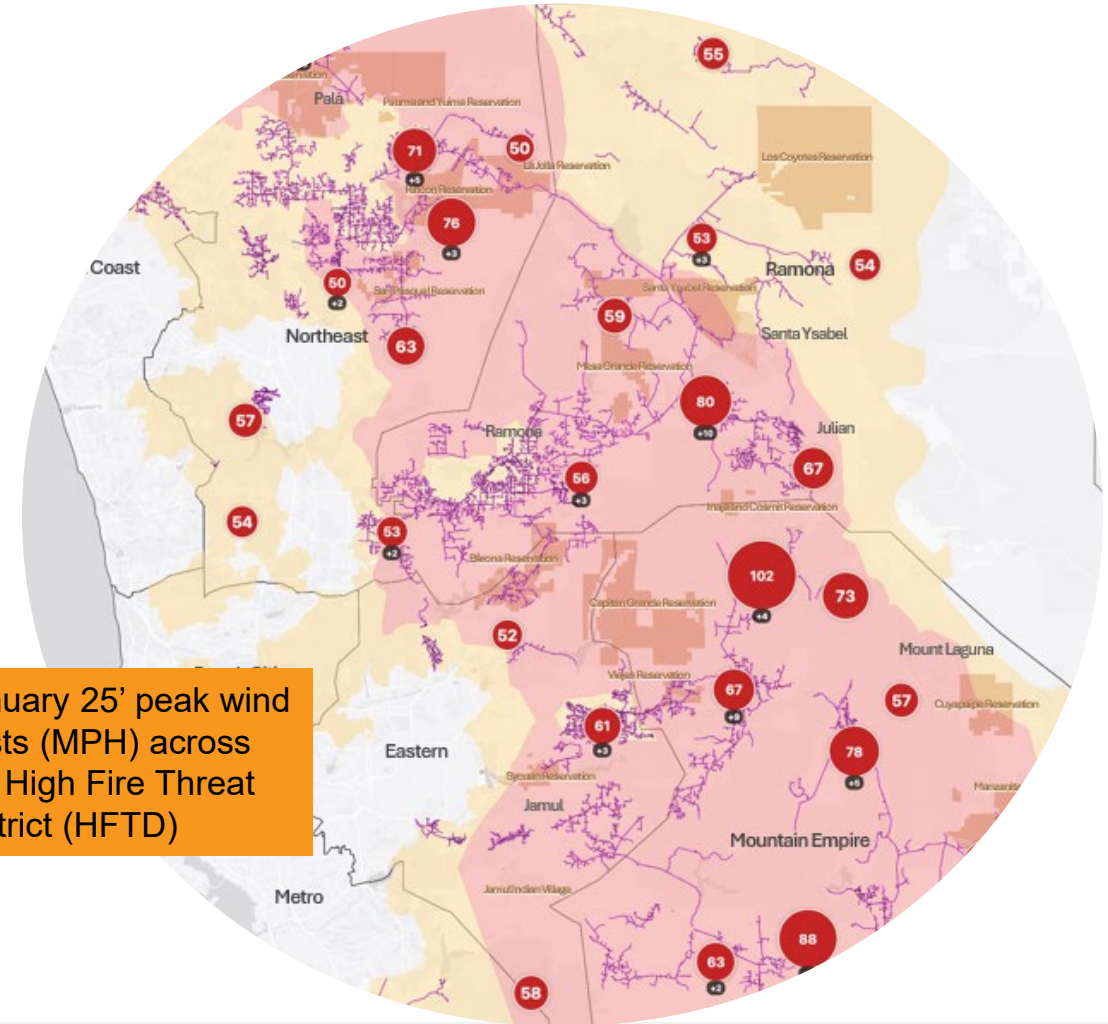


- Empowered employees to take ownership of safety
- Encouraged open dialogue between management and frontline workers

Wildfire Risk is Increasing Across California

SDGE has seen major risk reductions since 2007, though “tail risk” events have been steadily increasing across California during this time, demanding continuous evolution and pro-active measures to prevent a catastrophic wildfire

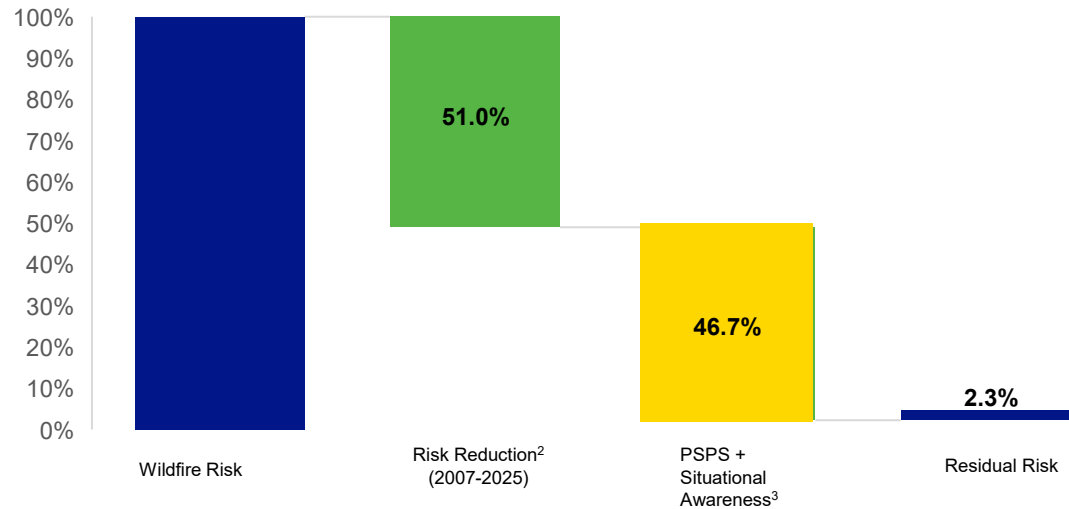
- SDG&E had the driest start to the winter on record last year and early this year (records back to 1850)
- 98% of SDG&E’s weather network reached its 95th percentile winds and 54 weather stations (25%) broke all-time Santa Ana wind records
- According to FEMA, San Diego County has one of the highest wildfire risks in the United States¹
- While SDG&E’s wildfire mitigation efforts have aided in avoiding a utility-related wildfire since 2007, those efforts continue to **rely heavily on PSPS** and human factors subject to potential error
- Covered conductor would result in minimal PSPS reduction during an event like January 2025, due to widespread wind gusts exceeding 60 mph across the San Diego mountains and foothills



Sustained Wildfire Risk Mitigation Reduces PSPS Impacts

SDG&E's risk-informed grid hardening strategy further reduces wildfire risk with less reliance on human factors and significant reductions in PSPS impacts to customers, balancing affordability, safety, and resiliency.

Estimated Wildfire Risk Reduction 2007 – 2025



Estimated Wildfire Risk Reduction 2007 – 2037²



Operational Approach



Situational Awareness



Asset Inspections
& Maintenance



PSPS De-Energizations



Vegetation Management
& Inspections



Sustained Approach



Strategic Undergrounding



Combined Covered Conductor



Traditional Hardening



Advanced Protection

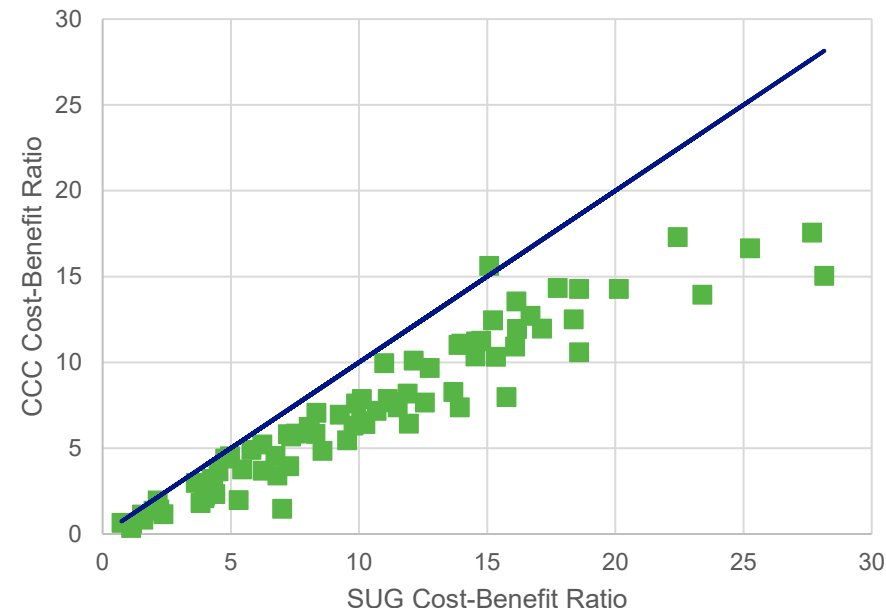
Risk Modeling Framework

Risk Modeling Requirements/Enhancements

- Wildfire + PSPS + PEDS¹ risk assessment
- Probabilistic Framework Capturing Tail Values
- Mitigation Effectiveness
- Risk Reduction and Residual Risk
- Lifecycle Costs Analysis
- Mitigation Alternatives
- Egress/Ingress modeling
- Risk Aversion
- Cost-Benefit Framework



Strategic Undergrounding Outperforms: Feeder Segment Cost-Benefit Ratios

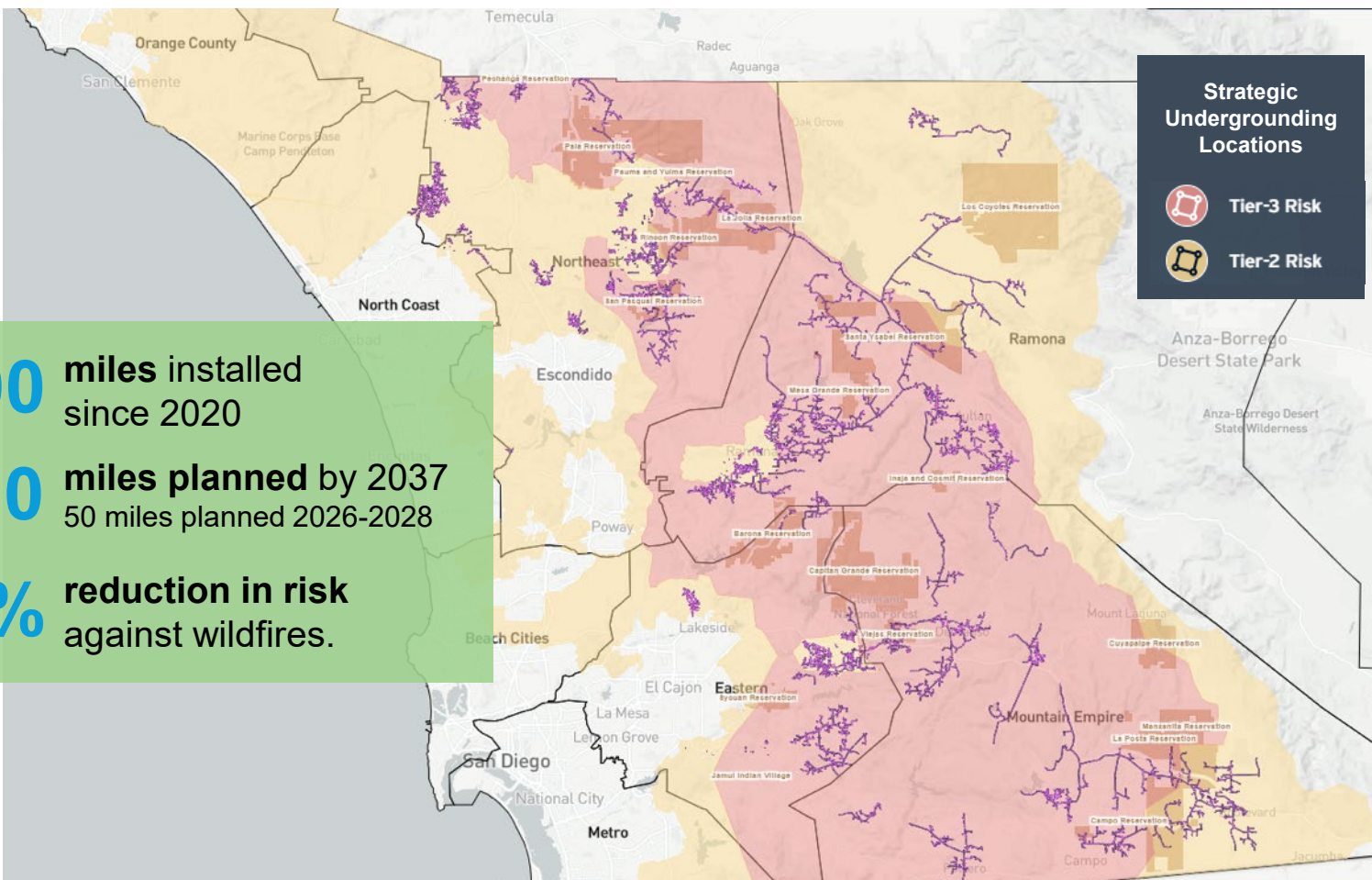


Each green dot represents a Feeder-Segment CBR. Dots below the 1:1 ratio (blue line) indicate that the SUG CBR is greater than the CCC CBR. Conversely, green dots above the blue line indicate that the CCC CBR is greater than the SUG CBR.

SDG&E's cost-benefit risk modeling framework clearly demonstrates that Strategic Undergrounding consistently delivers the highest cost-benefit ratios across the feeder segments analyzed, optimizing the balance of affordability and risk reduction.²

Long-term Grid Hardening Strategy

Strategic Undergrounding



Combined Covered Conductor



~180 miles installed since 2020

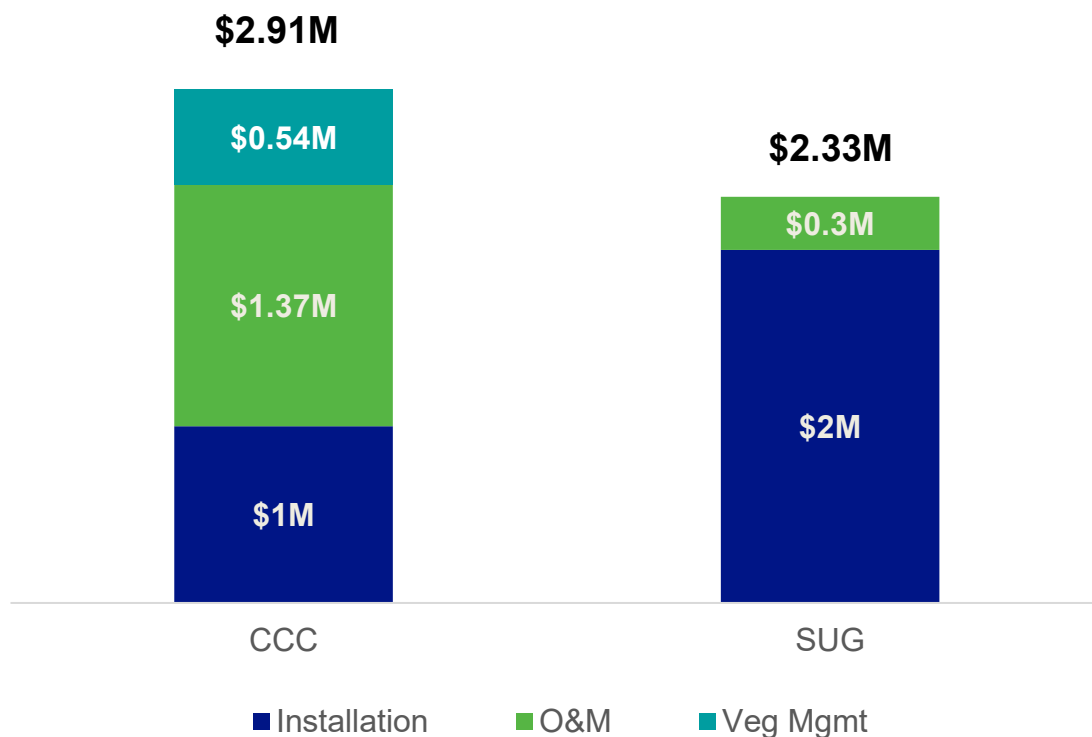
425 miles planned by 2037
130 miles planned 2026-2028

58% reduction in risk against wildfires

Undergrounding vs Combined Covered Conductor

Life Cycle Costs and Benefits

Average Cost Per Mile
Over 55 years



- Undergrounding maintenance and operations costs are negligible as compared to overhead maintenance costs.
- Vegetation management, overhead asset inspections, and PSPS nearly eliminated with undergrounding.
- Over the asset's 55-year lifespan, the total cost for strategic undergrounding is less than combined covered conductor.

SUG Benefits:

- Nearly 100% effective at reducing wildfire and PSPS risks
- Resilient to future climate change scenarios and unseen extreme fire weather events

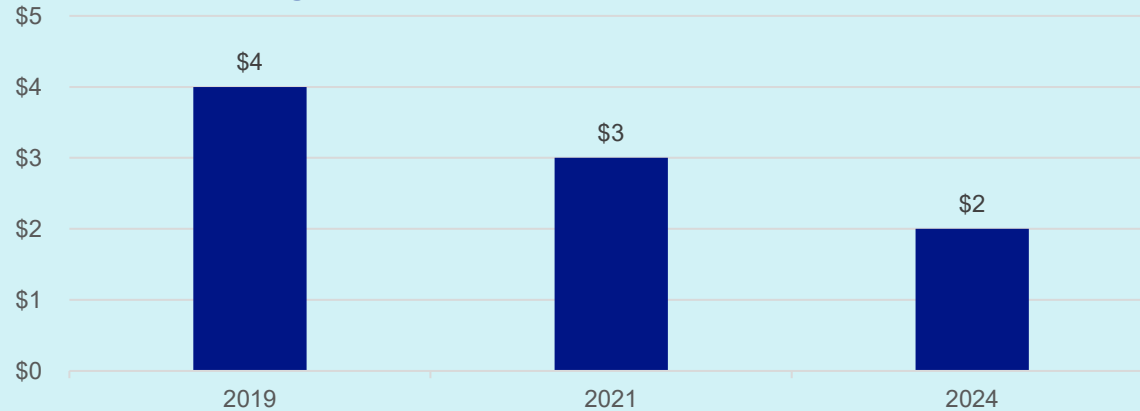
CCC Limitations:

- Need for continuous inspections in the overhead system resulting in ongoing and increasing costs
- Potential degradation and need for replacement over time
- May require PSPS de-energizations during extreme fire weather conditions

Undergrounding offers the most durable and effective solution to protect communities from wildfires and PSPS.

Installation Cost Reduction Efforts for Strategic Undergrounding

Underground Cost Per Mile Comparision (\$M)



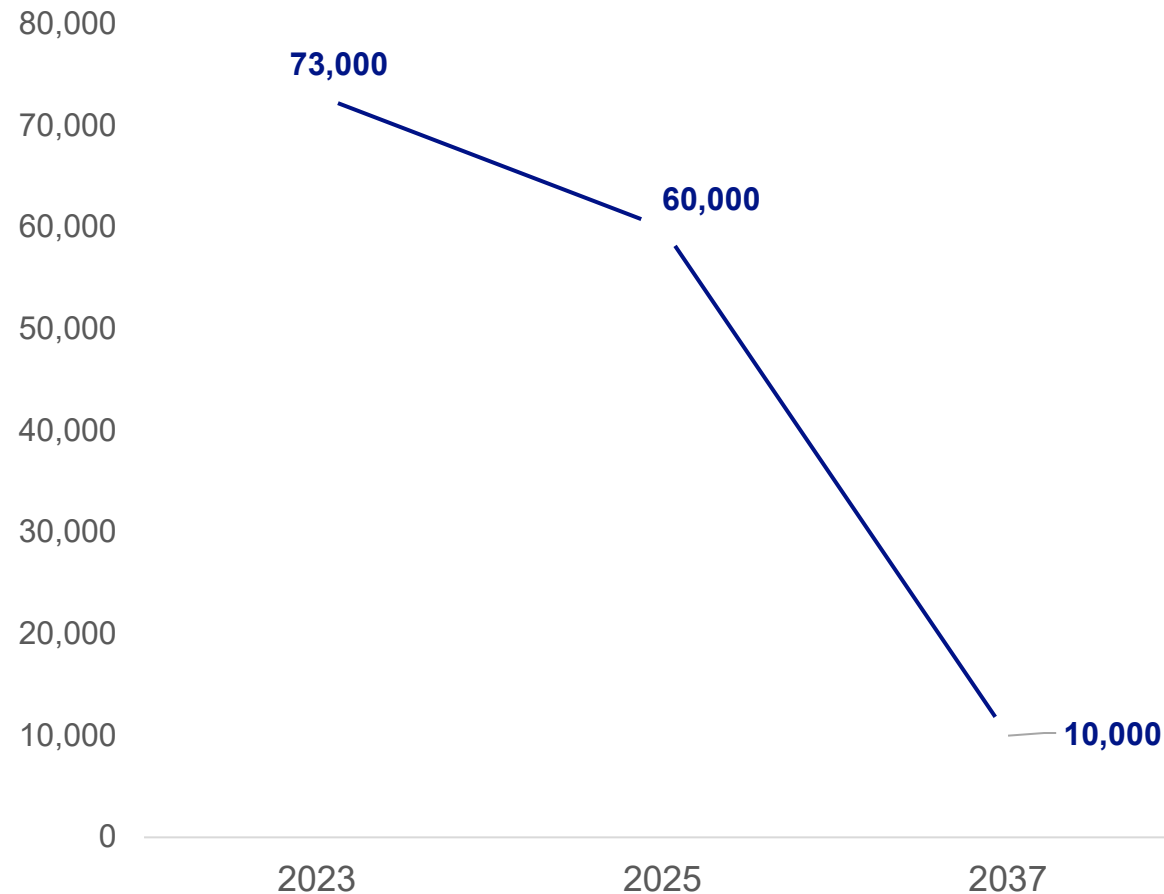
- Improved Contracting Approach
 - Bidding civil and electric scope separately (~10% savings)
- Engineering and Design Enhancements
- Reduced Trench Depth and Conduit Size
- Utilize Improved Construction Technologies
 - Tesmec trencher
- Streamline Permitting with Key Agencies (Caltrans, County of San Diego, Forest Service, Bureau of Indian Affairs)



Tesmec Trencher civil construction –
Sunrise Highway, Mount Laguna

PSPS Risk Reduction

PSPS RISK PROJECTED CUSTOMER COUNT



Focused PSPS Reduction
Most frequently impacted PSPS circuits¹ are directly targeted by increased undergrounding strategy



+90%

REDUCTION IN PSPS FOR
FREQUENTLY IMPACTED
CIRCUITS COMPLETE BY

2037

Climate Adaptation Strategy

Multi-Hazard View

- **Extreme heat** projected to intensify
- **Wildfire** risk increasing
- **Inland flooding** will increase
- **Sea level rise/coastal flooding** projected to double by 2070

Equity-Focused Community Engagement

- Established the **Equity-First Climate Coalition (EC3)**
- Implemented an **engagement toolkit** to gather feedback from all communities
- The **Community Engagement Plan (CEP)** includes long-term commitments to transparency, accountability

Understanding Asset and Community Impacts

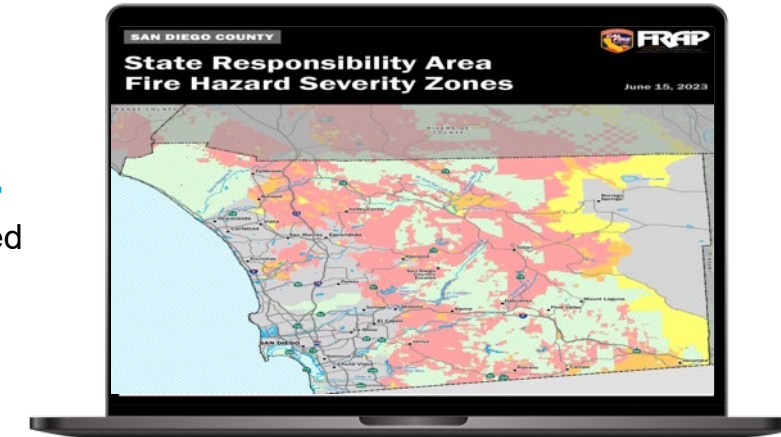
- **Critical infrastructure** vulnerability accelerating through 2070
- **Operations** require targeted resilience measures to maintain system reliability
- Applying the **Community Vulnerability Index (CVI)**

Informing Grid Resilience Strategy

- **Resilience strategy** anchored in four core objectives – Withstand, Absorb, Recover, and Advance
- Comprehensive suite of **resilience measures**
- The **Climate Intelligence Platform (CIP)** enables advanced analytics

Challenge:

How might we combine climate, community, and infrastructure data to inform decision making, optimize our investments, and better serve the local communities?



Distribution Electric System Inspection & Maintenance

Updates and Changes to QA/QC of Inspections



**Improved
timeliness
of audits**



**Independent
and dedicated
auditors**



**Increased
number
of audits**



**Track and identify trends
& implement corrective
action for continuous
improvement**

Description	Previous QA/QC Program	Updated QA/QC Program
Overhead Detailed Inspections	Inspection Supervisor would perform audit of 1.5% of inspections in the quarter after the inspection occurred	Quality Assurance auditor performs audit of 5% of inspections resulting in “No Findings” within 30 days of inspection month
		Inspection Supervisor audits 50% of potential safety/fire hazard related findings within 30 days of inspection month

Backlog Electric Distribution Issues in HFTD Prioritized

98% of repairs complete associated with issues identified through drone inspections performed on **all distribution poles** across the **entire HFTD** from 2019-2022

Description	Drone Investigation Assessment & Repair (DIAR) Backlog - Inspections Performed 2019-2022		
Total Potential Fire Hazards Issues Identified	22,930 poles with issues		
Emergency Issues Repaired	325		
Pole Replacements	4,695 Total	4,383 Complete	312 Pending
Other Issues	17,910 Total	17,714 Complete	196 Pending

- 325 Emergency issues found during inspections were repaired in 0-3 days
- **Reassessed** all outstanding issues and prioritized higher severity issues to be **complete by 9/1**
- Prioritized remaining backlog of repairs and anticipate completion by **end of 2025**

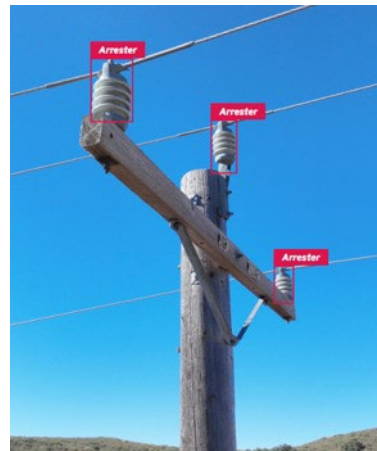
Joint IOU Collaboration – Machine Learning Model Sharing

PG&E, SCE and SDG&E are working together on the feasibility of an AI/ML model data sharing platform

- Artificial Intelligence/Machine Learning models can be used for damage detection and asset inventory improvement
- Model sharing can minimize development cost and resource impacts for each utility needed to train models intended to solve similar issues
- Model sharing can accelerate development of new models and improve existing models that will help utilities mitigate risk



Damage Detection



Asset Identification



Collaborative Computer Vision Platform



**Asset
Detection**



**Damage
Detection**



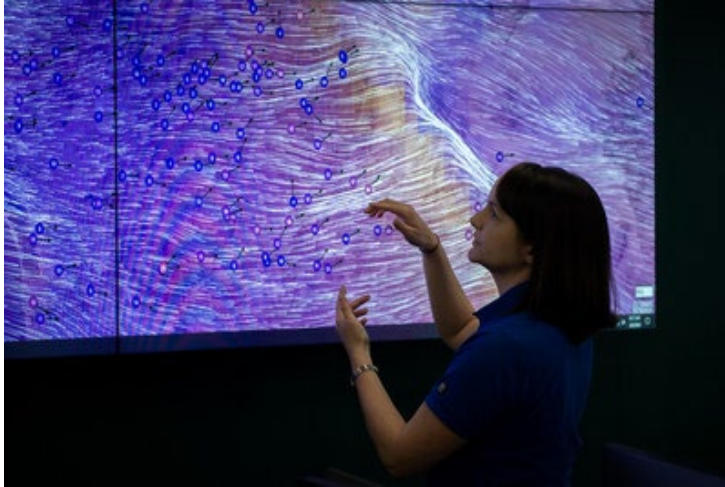
**Attacher
Identity**



**Vegetation
Analysis**

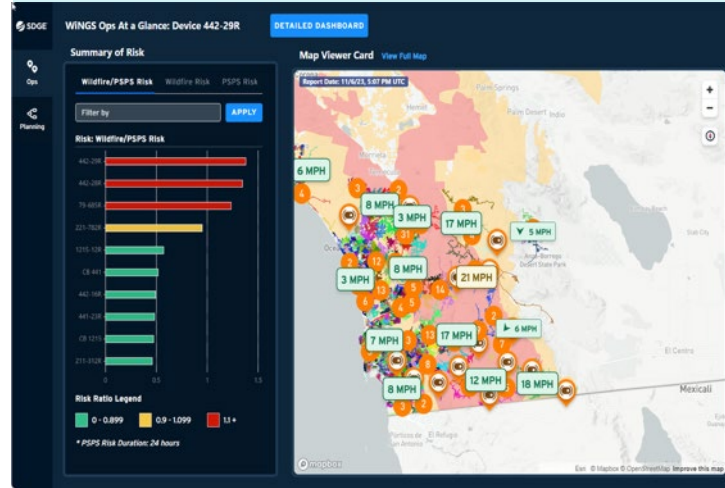
Wildfire Innovation + Technology

Technology and Innovation remain foundational to SDGE's Wildfire Mitigation Program



Situational Awareness

- Incorporating AI applications across weather networks, cameras and satellite
- Enhancing risk modeling, informing PSPS and hardening strategy
- Developing new ensemble weather forecasting system



Engineering + Operations

- Further analyzing system undergrounding for opportunity to mitigate PSPS
- Risk-informed inspections and vegetation management
- Performing drone inspections in high-risk areas, including coastal canyons



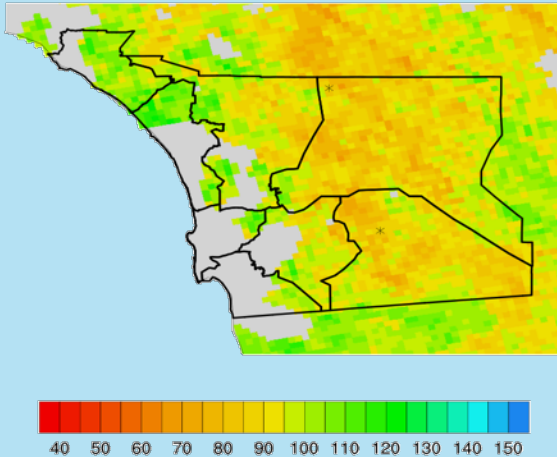
Stakeholder Education and Outreach

- Customer Notification System: Optimized to support PSPS Events
- Wildfire Safety Fairs expanded across coastal communities
- Wildfire & Climate Resilience Center has seen over 5000 visitors

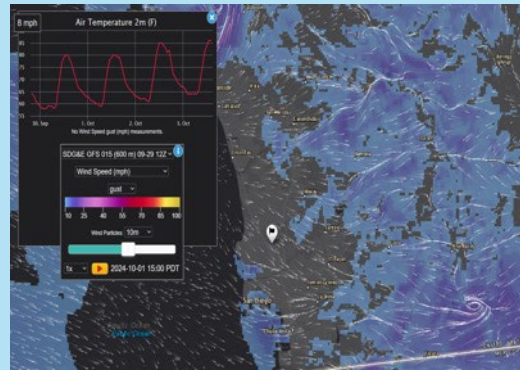
Leveraging Artificial Intelligence (AI) Tools

Expanding use of AI to better anticipate, prepare for and recover from emergencies

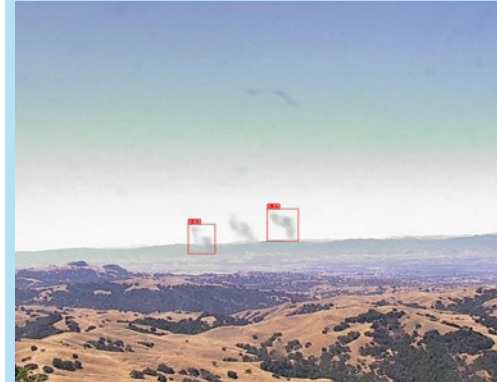
Gridded AI-based fuels models provide more holistic look at fuel moisture content region-wide



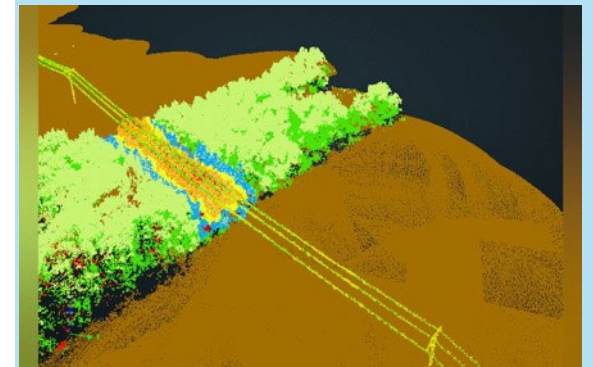
Machine learning wind gust models provide more accurate forecasts prior to PSPS events



AI smoke detection on the AlertWildfire network provides situational awareness of any potential fire events



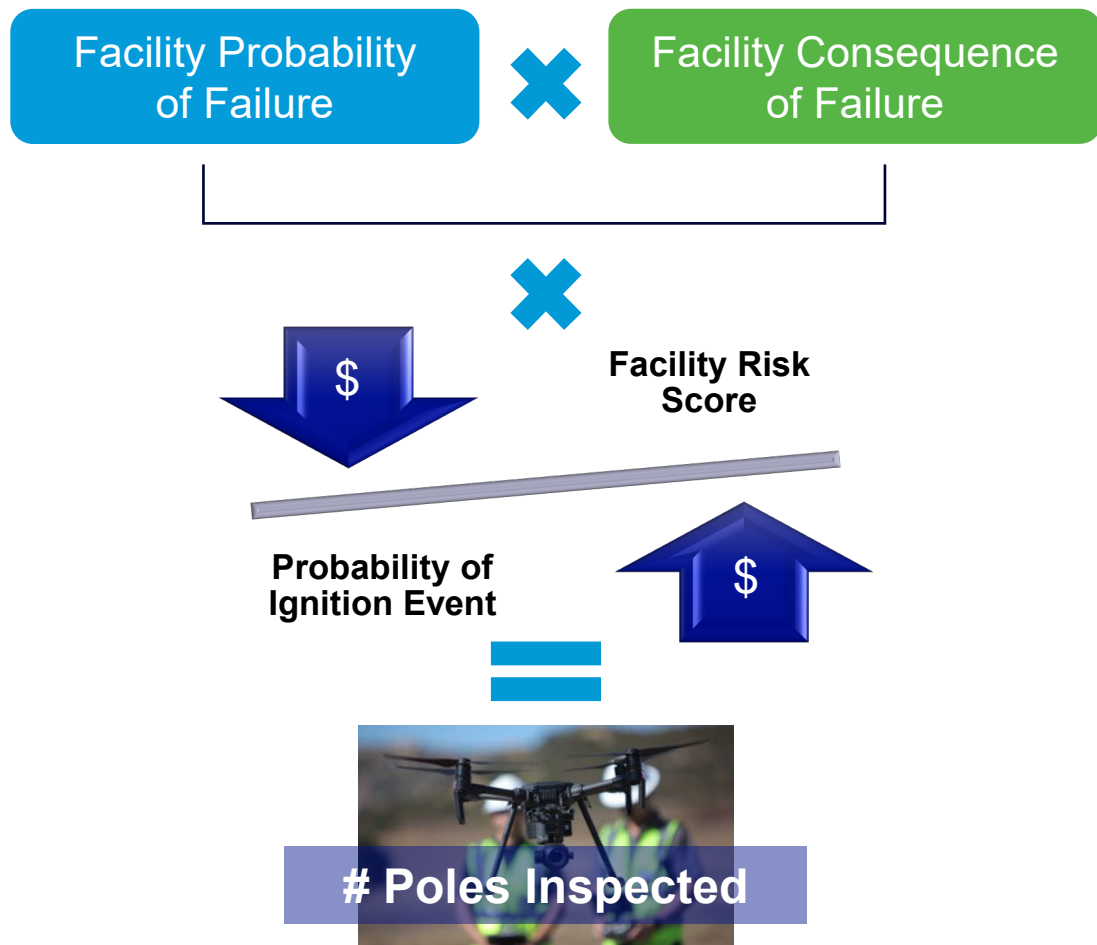
New models developed with UCSD using AI to predict vegetation outages



Risk-Informed + Innovation = Risk-Informed Drone Inspections (RIDI)

Risk-Informed Inspection Model

Inputs Updated Annually



RIDI Value Observations



RIDI identifies 7% more
potential fire hazards than
traditional CMP inspections

RIDI identifies
emergency
damages on
average ~ **29**
months earlier
than traditional OHVI
detailed inspection



12 Governing PSPS Poles
identified from RIDI
priority findings in 2024

This information is crucial for
lowering the alert-speed
thresholds for de-energization

RIDI improves
public safety

by reducing outage
potential to 7997
customers thru remediation
of 22 emergency damages



Committed to Continuous Learning + Improvement

SDG&E works to implement a culture that never forgets 2007 and continues to aggressively mitigate wildfire and PSPS risk



EOC/Responder Prep

- Launched new Emergency Operations Center (EOC)
- Larger trainings + exercises
- Expanded outreach + collaboration



Access and Functional Need (AFN) Support

- 24/7 PSPS support model
- Utilizing AFN self-ID campaign
- PSPS Customer Impact Study



Community Engagement

- Wildfire safety fairs (including coastal) + 65 mini wildfire safety fairs
- Wildfire Safety Community Advisory Council (CAC)
- >5,000 Wildfire and Climate Resilience Center guests



GIS Enhancements

- More flexibility, granularity, and usability
- Enable effective coordination across technologies

Since
2020...

Undergrounded 325 miles
of powerlines in high-risk areas

Provided 8,100 generators to
vulnerable customers

**Installed 193 miles of covered
conductor**, reducing ignition risk

Removed or trimmed 69,900 trees
near powerlines

Replaced 25,900 devices
prone to ignitions

Enhancing Employee Safety + Customer Awareness

Acting on employee feedback¹, SDGE has begun implementing customer notifications in a phased approach for all work performed at or near a customer's property by an employee or contractor

New Notifications

- Gas + electric meter work
- Gas patrols
- Gas locate and mark
- Electric overhead inspections (pilot)
- Other (e.g., Veg. Mgt. Tree Trimming)

Future Enhancements

- Real-time progress tracker
- Additional details including employee name and photo
- Interactive map
- Push notifications via SDGE app



Increased customer satisfaction

70%

Of customers are satisfied with the advance field notifications¹



Customers felt safe and confident knowing SDGE workers would be in their area



Timely notifications help customers prepare



I appreciate the heads up; with **people posing as utility workers these days, it can be scary.** It gave me a sense of security being informed ahead of time.”



Reduced employee safety concerns



Employee safety is improved because customers know they are real SDGE employees



Gates are unlocked and dogs put away for improved safety



Customers clean the area around meters for easier access



It's nice when we **don't surprise the customer**, as it makes our jobs much easier and **ensures employee safety.**”

Collaboration & Benchmarking

SDG&E is continuously learning from and sharing with other utilities, both statewide, nationally and internationally

**Monthly
WMP Joint
IOU
Meetings**

Discuss lessons
learned and best
practices

**International
Wildfire Risk
Mitigation
Consortium**

Global collaboration &
access to cutting-edge
technologies

**SDG&E's
Wildfire
Climate
Resilience
Center**

Educate & connect
with community and
partners

**California
Utility
Alliance for
Safety &
Training
(CAST)**

Forum for sharing
safety and training
best practices

**Emergency
Preparedness and
Response**

**Innovation Through
Collaboration**

**Mutual Respect
and Trust**

Communication

2024-2025 PSPS Events

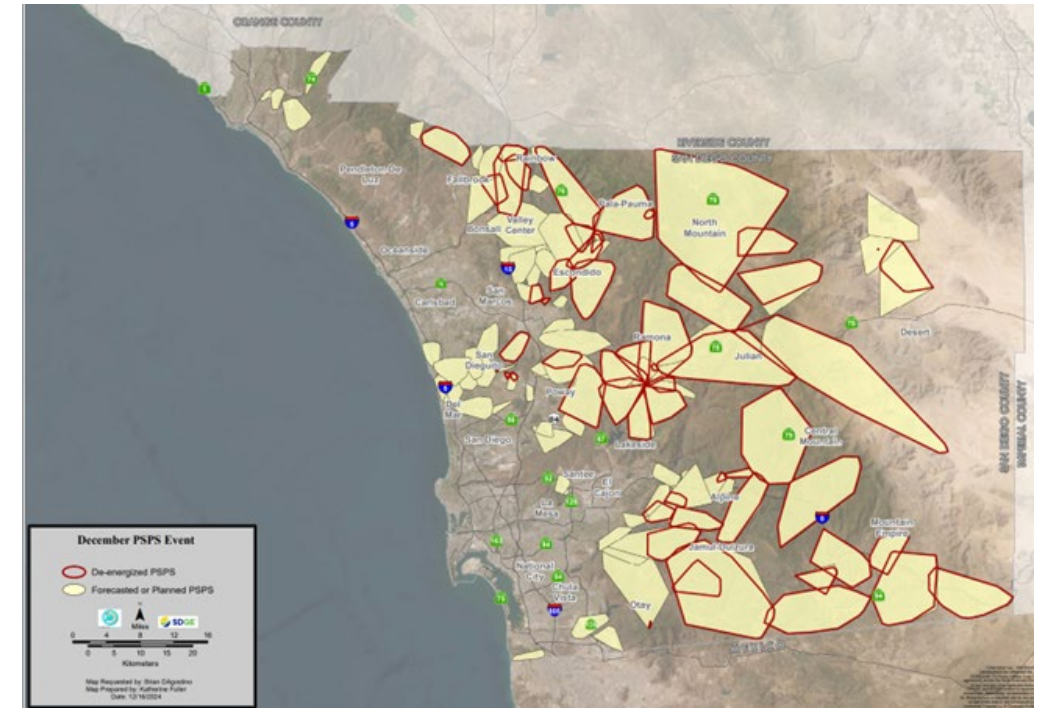
Due to favorable weather and advanced situational awareness, SDG&E did not experience a PSPS from November 2021 through November 2024

PSPS Event	RFW Dates	Peak Wind Gust (mph)	FPI	Circuits in Scope	Circuits De-energized	Transmissi on De-energized	Custom ers Notified	Custome rs Impacted	Custom ers Avoided/ Reduced	Longest Duration	Average Duration
Nov 6-8, 2024	11/6-11/7	65	15	39	7	0	24,720	1,263	16,168	35:59 (1.5 days)	26:14 (1.1 days)
Dec 9-11, 2024	12/9-12/10	81	16	116	65	10	116,313	52,306	66,694	51:00 (2.1 days)	40:11 (1.7 days)
Jan 7-16, 2025	1/7-1/15	85	15-16	85	26	3	74,652	21,508	51,912	56:07 (2.3 days)	24:02 (1 day)
Jan 20-24, 2025	1/20-1/24	102	15-16	91	50	8	83,625	29,980	53,650	101:11 (4.2 days)	48:03 (2 days)

December RFW & PSPS by the Numbers

This was the strongest Santa Ana wind event we've seen in years, bringing extreme wildfire conditions and wind speeds that exceeded hurricane-strength levels in certain areas

- NWS Red Flag Warning Dates 12/09 - 12/10
- PSPS Longest Time: 51 hrs. 00 min.
- Average PSPS Duration: 38 hrs. 02 min.
- Average Patrol Time: 6 hrs. 01 min.
- 117,466 Customers notified (3M total notifications)
- 51,003 Customers affected
- 54,977 Customers avoided PSPS through enhanced situational awareness
- 12 Community Resource Centers opened
- 500KV transmission line de-energized for the first time in the history of SDGE PSPS
- Peak wind gust for the event: 95 mph
 - Stations at or above 99th percentile: 101
 - New all-time records exceeded: 12



The San Diego Union-Tribune - 1 d · on MSN

SDG&E crews restoring power after record-breaking winds blow through San Diego

The worst is definitely behind us," said National Weather Service meteorologist...

January RFWs & PSPSs by the Numbers

The driest start to the water year in San Diego's 174 history coupled with multiple high wind events resulted in extreme wildfire conditions on eleven separate days spread over 2½ weeks

Date	Mon 1/06	Tue 1/07	Wed 1/08	Thu 1/09	Fri 1/10	Sat 1/11	Sun 1/12	Mon 1/13	Tue 1/14	Wed 1/15	Thu 1/16	Fri 1/17	Sat 1/18	Sun 1/19	Mon 1/20	Tue 1/21	Wed 1/22	Thu 1/23	Fri 1/24
RFW																			
Extrm FPI*																			

Extreme FPI Red Flag Warning High Wind Warning 1/07-1/08

- Top 20 Avg Gusts: 57 mph
- Wind Records: 13
- Peak Gust: 71 mph
- 95% Stations: 172
- 99% Stations: 83
- PSPS Cust Scope: 65,475
- PSPS Cust off: 7,267
- **PSPS Avoided: 7**
- CRCs Opened: 8

Extreme FPI Red Flag Warning 1/09-1/10

- Top 20 Avg Gusts: 62 mph
- Wind Records: 3
- Peak Gust: 85 mph
- 95% Stations: 125
- 99% Stations: 49
- PSPS Cust Scope : 74,652
- PSPS Cust off: 10,274
- **PSPS Avoided: 346**
- CRCs Opened: 9

Extreme FPI Red Flag Warning 1/11-1/12

- Top 20 Avg Gusts: 38 mph
- Wind Records: 0
- Peak Gust: 52 mph
- 95% Stations: 14
- 99% Stations: 0
- PSPS Cust Scope : 4,561
- PSPS Cust off: **0**
- **PSPS Avoided: 0**
- CRCs Opened: 0

Extreme FPI Red Flag Warning 1/13-1/15

- Top 20 Avg Gusts: 55 mph
- Wind Records: 0
- Peak Gust: 74 mph
- 95% Stations: 133
- 99% Stations: 24
- PSPS Cust Scope : 54,937
- PSPS Cust off: **5,938**
- **PSPS Avoided: 346**
- CRCs Opened: 4

Extreme FPI Red Flag Warning High Wind Warning 1/20-1/21

- Top 20 Avg Gusts: 70 mph
- Wind Records: 30
- Peak Gust: 102 mph
- 95% Stations: 195
- 99% Stations: 116
- PSPS Cust Scope : 83,609
- PSPS Cust off: **16,733**
- **PSPS Avoided: 370**
- CRCs Opened: 10
- De-energized Transmission

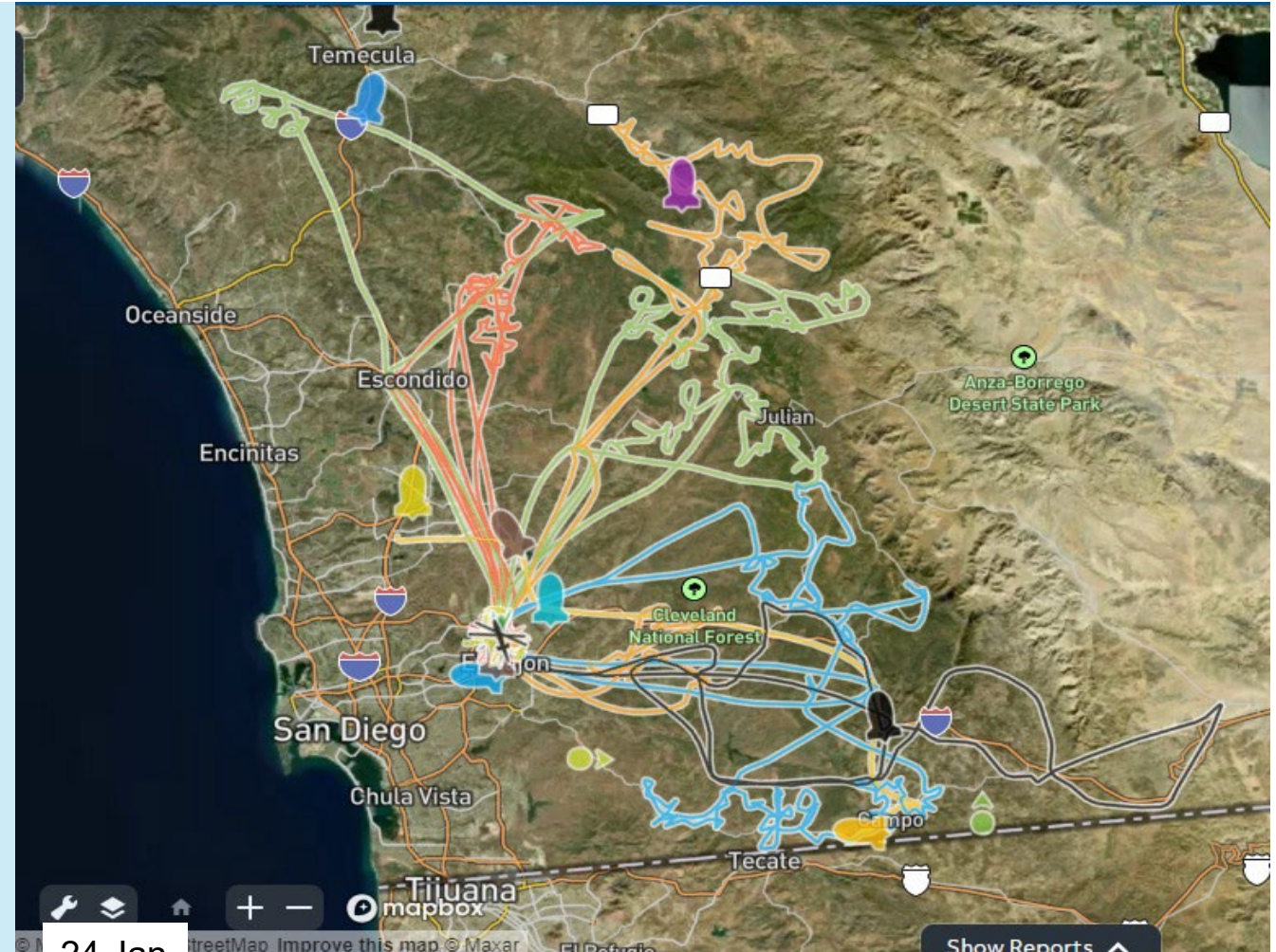
Extreme FPI Red Flag Warning High Wind Warning 1/22-1/23

- Top 20 Avg Gusts: 69 mph
- Wind Records: 16
- Peak Gust: 97 mph
- 95% Stations: 182
- 99% Stations: 127
- PSPS Cust Scope : 83,625
- PSPS Cust off: 20,460
- **PSPS Avoided: 376**
- CRCs Opened: 12
- De-energized Transmission

Massive Mobilization

- ~ 350 separate SDG&E EOC responders this season devoting ~20,000 hours of support
- ~ 300 separate field personal supported all stages of the event
- Five helicopters were mobilized in support of re-energization on multiple days- final re-energization on 24 Jan:
- ~140 total helicopter flight hours
- 2 Blackhawk firefighting helicopters:
 - 36,200 gallons on 4 different fires
- >900 poles flown by drones in over 100 flights - 6 pilots available throughout event

Helicopter re-energization flights and drone flight locations



Enhanced Customer Support

During this unprecedented event, SDGE made immediate changes to better serve our customers and offered enhanced support in our most impacted communities

Enhanced Community Support

- Revamped Critical Facilities Briefings (2X daily) to include real-time weather updates and in-depth Q&A opportunities
- Added 4 new Community Resource Centers + additional resources
 - 3 in Mountain Empire (2 in tribal communities) + 1 in Borrego Springs
 - Warming items (blankets, hand warmers, beanies, etc.)
- Provided additional services in Mountain Empire community
 - Food trucks and hot drinks
 - Restrooms and showers
 - Laundry services
- Plan to streamline messaging prior to next season

Mountain Empire Community

- Mountain Empire High School serves as key “community hub”
- Generators brought in from Nevada to power high school - enabling “Power Up Camp”

MEUSD EXPANDED LEARNING PRESENTS:

POWER UP CAMP

To support families impacted by the Public Safety Power Shutoffs, the Mountain Empire Unified School District's Expanded Learning Program is offering a Support Camp where we will provide meals, fun, and recreation for kids while schools are closed.

The camp will open on Wednesday, January 22nd, at Mountain Empire High School, which now has generator power. Additional support days will be added if school closures continue due to the ongoing SDG&E Power Safety Shutoffs.

Wednesday, January 22

8 AM - 5 PM

TK - 12th Grade

Breakfast, lunch, & Snack provided

Mountain Empire High School
*powered by generator system

Art, Games, Sports, & More

No Cost



To help us plan meals & activities -

Register Here: <https://bit.ly/PowerUpCamp>

Mountain Empire High School
3305 Buckman Springs Rd, Pine Valley, CA 91962

Sensitive Relay Profile & Customers with Access and Functional Needs (AFN)

SDG&E appreciates the impact that SRP can have on communities, though this has not been an issue in San Diego because over the last year, SRP was only enabled during PSPS events when enhanced resources are in place for the AFN community.

WILDFIRE RISK

ZERO

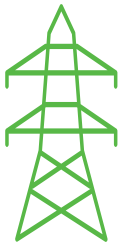
Fire ignitions while SRP has been enabled



SYSTEM RELIABILITY

<1%

Total outages associated with SRP since 2020



TIME TESTED PROGRAM

2011

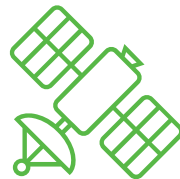


Implemented over a decade ago with no operational issues

OUTAGE CAUSES

0%

Increase in undetermined outages while SRP is enabled



HIGH FIRE THREAT DISTRICT (HFTD)

100% Coverage

Enabled in highest risk areas on during critical fire weather conditions

RESTORATION TIMES

0%

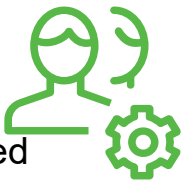
Increase in restoration times on outages when SRP was enabled in 2024



RARELY UTILIZED

< 7% of Days

Days leveraged since 2020



FIRE SAFETY

>17 YEARS

Without a utility-caused large wildfire



WiNGS-Ops | 2025 Enhancements

Recent Advancements



Faster High-Risk Asset Identification: Enhanced TCC search, table, and map for faster identification of high-risk poles.



Enhanced Visualizations: Streamlined the WiNGS-Ops and TCC interface with a more organized layout, resulting in fewer clicks and faster operator response times.



Improved Bench Strength: Established a fully-dedicated risk team to support PSPS activations

Improvements Underway



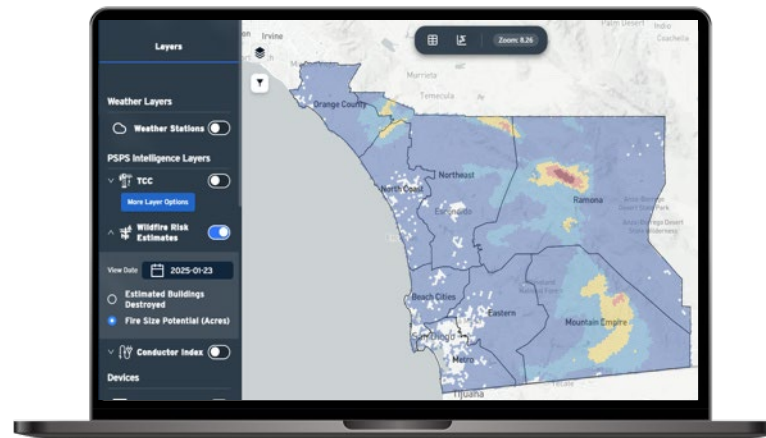
Strengthen TCC Data Integrity: Implement data validation processes to ensure accurate TCC damage assessments for operations and future strategic initiatives.



Improved Risk Modeling: Improve 2025 risk modeling by updating Probability of Failure models and translating wildfire consequences into dollar values.



Seamless User Experience: Improve core tools like search, layers, and filters to create a more intuitive platform, reduce user error, and streamline workflows.



TCC: Temporary Construction and Compliance

Data-Driven Wildfire Risk Mitigation

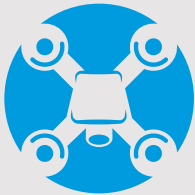
The Wildfire Next Generation System (WiNGS) delivers visual insights into wildfire and PSPS risk across SDG&E infrastructure by integrating historical and forecasted weather data, asset characteristics, and customer information to support both operational decisions and strategic investments.

WiNGS Enhancements Include:



Early Risk Identification

Increased use of leading indicators for potential ignitions and data analytics to identify areas of highest risk



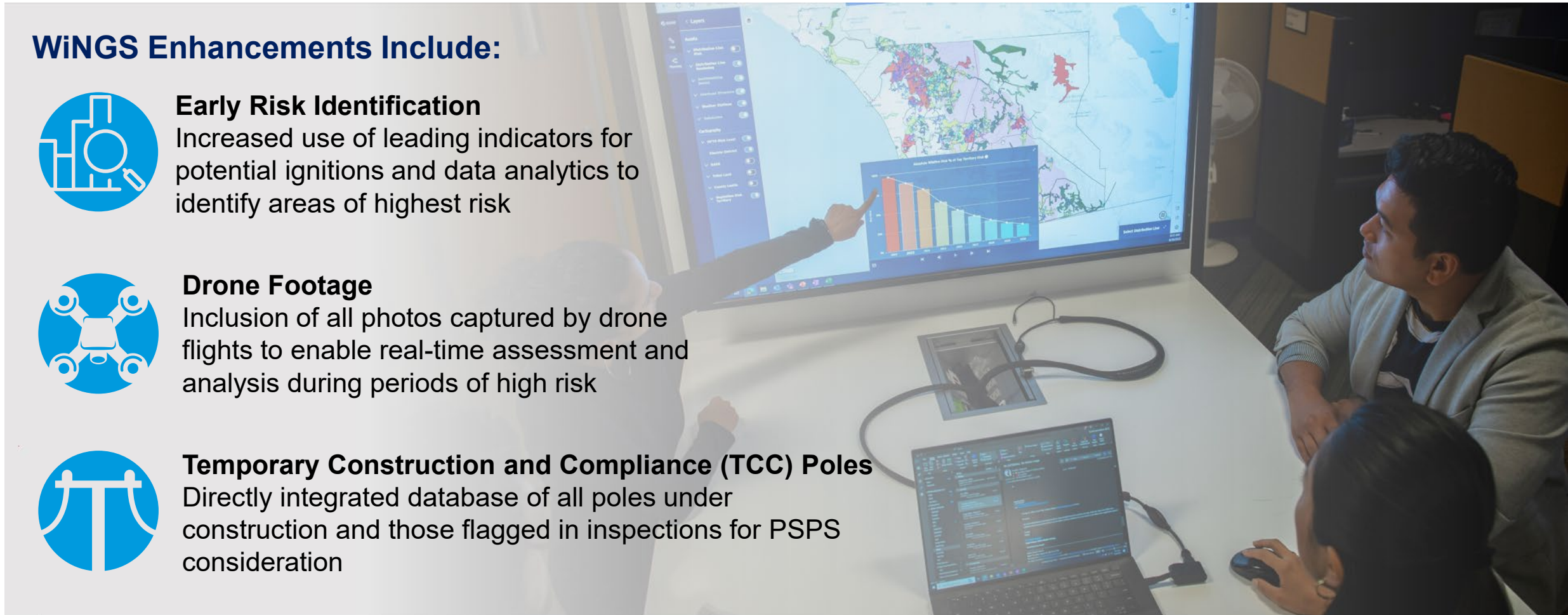
Drone Footage

Inclusion of all photos captured by drone flights to enable real-time assessment and analysis during periods of high risk



Temporary Construction and Compliance (TCC) Poles

Directly integrated database of all poles under construction and those flagged in inspections for PSPS consideration



Committed to Education, Outreach + Collaboration

SDGE has been leveraging the Wildfire & Climate Resilience Center to connect with our community and industry partners to educate on how to safely implement PSPS and learn more about the community impacts

295 Tours

5,395 Visitors

672 Organizations

- **3946 External Visitors**
- **1678 Students**
- **Organizations**
 - **139 Utilities**
 - **252 Industry Collaborators**
 - **108 Government Agencies**
 - **108 Stakeholders**
 - **99 Community-based Organizations**
 - **33 Higher Education**
 - **12 Tribal Communities**
 - **56 Schools**
 - **9 Media**



Customer Engagement + Support

Foundational Support

- Year-round **preparedness messaging**
 - Resources and preparation tips
 - Notification information
 - Dedicated campaigns to critical facilities and customers with Access & Functional Needs (AFN)
- Ongoing **outreach** to our communities
 - Partnerships with community-based organizations
 - Wildfire Safety Fairs (5)
 - Collaboration with tribal communities
- Direct customer support + focus on **AFN**
 - Community Resource Centers (CRC)
 - No-cost hotel stays
 - Accessible transportation
 - Loaner generators & batteries

Targeted Enhancements January PSPS



- Revamped Critical Facilities Briefings (2X daily)
- 4 new temporary CRCs + additional services (e.g. food trucks and laundry)
- Additional services in Mountain Empire community
- Listening tour with tribal communities in impacted areas
- Streamlined messaging for next season

New for 2025



Proactive preparedness call campaign to Medical Baseline customers



Increased collaboration with school districts - meetings with Superintendents + proactive planning for resiliency needs



Expanding direct customer communications to deliver more personalized messaging



Enhancing notifications during PSPS to be clearer, include additional situations and convey empathy

Tribal Resiliency, Sovereignty + Safety

Resiliency

- Tribal Fire Book provides a tribal perspective on preparedness by integrating culture and nature
- Partner with tribal nations to assist with interconnections to advance clean energy projects on tribal lands
- 4th Annual Tribal Leaders Energy Summit themed around resiliency

Sovereignty

- Integrated tribal access protocol into environmental tracking system
- Employee training and awareness on tribal access protocol on tribal lands for safety and cultural resource protection

Safety

- Transparent and consistent communication
- Enhanced support for tribes during PSPS, including portable restrooms + showers, laundry services, and food trucks
- Tracking all access protocol requests for evaluation and improvement

Significant Improvements and Changes made in 2025

Since implementing our first PSPS event in 2013, SDG&E continues to identify improvements including:



PSPS Thresholds

- Surgical approach for alert speeds on feeder segments with covered conductor
- Increased focus on Temporary Construction & Compliance poles to minimize high-risk poles that could lower alert speeds



Community Resource Center Plan

- Added signage and staffing
- Additional CRC sites in impacted areas
- Mock Activations
- Define thresholds for enhanced support items (blankets, hygiene, hot food)



Critical Facilities and Infrastructure Plan

- Started providing twice daily briefings to impacted CFCI customers and partners to help with high impact decision making.



Notification Plan

- Notifications updated to add additional clarity on outage and CRC timing details
- Updated CNS system to better facilitate PSPS Notifications



Education and Outreach

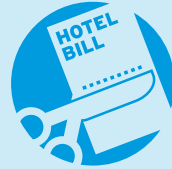
- Expanding PSPS direct communications to zip codes outside of HFTD affected by last winter's PSPS
- Paid PSPS advertising campaign extended through January 2026

2025 AFN Resource Enhancements

Continuous enhancements to support individuals and households with Access and Functional Needs (AFN)

Hotel Discount Program

- Customers experiencing an extended outage can take advantage of special rates at participating hotels.
- SDGE is not responsible for any room or meal charges, incidentals, or cancelation fees, and does not reimburse customer for any hotel charges.
- Implementation expected by early Q4 2025



Transportation Enhancement

- SDGE awarded a grant to our transportation partner, FACT, to improve communication in remote areas with limited cellular coverage



211 Call Campaign for MBL Customers

- Outreach call campaigns are made by 211 to help customers with AFN complete a PSPS Readiness Plan



Backup Power Program

- Customized resiliency assessments for MBL and qualifying AFN customers in the HFTD – assess, educate and referrals on full resiliency support resources



Tribal Feedback Sessions

- As a result of the PSPS Impact Study, tribal communities were seeking opportunities to share feedback on their PSPS experiences.
- Working closely with a respected member of the tribal community, feedback sessions have been taking place with the local tribes.
- Summary of findings are expected by mid Q3 2025



PSPS Season Opportunities and Action

Comprehensive After-Action Report in development encompassing four events Nov. 2024 – Jan. 2025



Engineering and Operation

- Minimize potential PSPS impact on underground circuits (including coastal) through engineering review
- Examine transmission vulnerabilities and PSPS procedures



Situational Awareness and Forecasting

- Add additional weather sensors to transmission corridors in 2025
- Update weather station statistics and circuit associations incorporating lessons from January



Customer Notifications

- Review and revise customer messaging
- Increase communication with critical customers throughout PSPS event



IT Systems

- Enhance system to better manage long duration events
- Customer Notification System ability to better communicate at sub-circuit level

Joint IOUs continue to meet to benchmark on lessons learned and best practices following the January Events

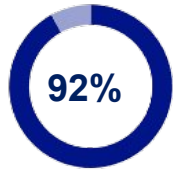
Wildfire Mitigation Program Performance 2020-2024

Below are sample KPIs that SDGE tracks to demonstrate wildfire safety, wildfire risk reduction and substantial compliance with the Wildfire Mitigation Plan.

Undergrounding



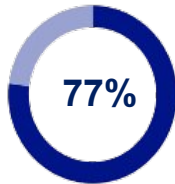
Target: 352.4 miles
Actual: 325.4 miles



Covered Conductor



Target: 251 miles
Actual: 193.1 miles



Transmission Hardening



Target: 132.3 miles
Actual: 142 miles



Equipment Replaced



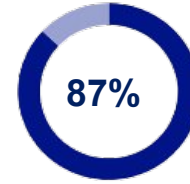
Target: 22.3k units
Actual: 25.9k units



Enhanced Veg Management



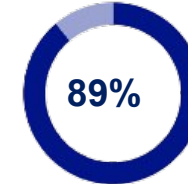
Target: 80.1k trees
Actual: 69.9k trees



Elec Sys Hardening Fault Detection



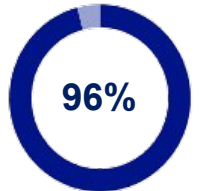
Target: 1,980 units
Actual: 1,754 units



Generators



Target: 8,448 units
Actual: 8,105 units



Substation Inspections



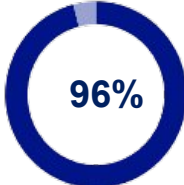
Target: 2,142
Actual: 2,180



Infrared Inspections



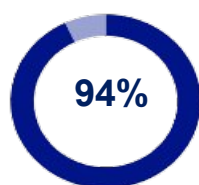
Target: 90,431
Actual: 86,709



Wood Pole Intrusive Inspections



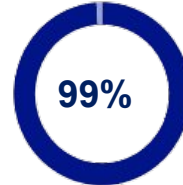
Target: 30,869
Actual: 28,874



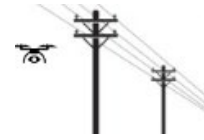
Veg Management Inspections



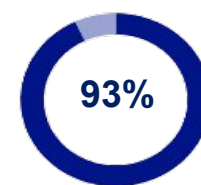
Target: 2.85M
Actual: 2.82M



Drone Inspections



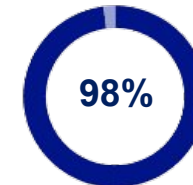
Target: 122,588
Actual: 114,536



Distribution Inspections



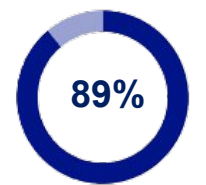
Target: 856,951
Actual: 836,285



Transmission Inspections



Target: 90,572
Actual: 80,307



Committed to Continuous Learning, Innovation & Improvement

Advancements in safety are value driven.

- Embracing innovative technologies
- Fostering a culture of safety
- Continually reviewing, assessing and validating

Together, we have the power to drive change, inspire innovation, and set new standards of safety excellence.









APPENDIX









Employee & Contractor Safety Performance

January 1 – June 30, 2025

Rate = (# Incidents X 200,000 / hours worked)

Year-to-date Safety Performance Overview: Through the first half of the year, employee OSHA-recordable injuries are up 3% from last year through the same period (34 vs 33), and lost-time incidents are down 58% (5 vs 12). Strains and sprains account for approximately 41% of the injuries. SDG&E is continuing implementation of its 2025 Safety Management Action Plan with an enhanced focus on work zone safety, serious injury and fatality (SIF) prevention and high energy hazards. There were no employee SIFs during the first half of the year. Two injuries were determined to have SIF-potential where high energy was present in the absence of a control (one heavy rotating equipment; one mobile equipment with workers on foot).

Safety Culture		Near Miss Submittals		Field Safety Engagements	Driving Observations
		Employee	Contractor		
	YTD 2025	201 	175 	67 	967 
	2024	447	257	126	1,857
	2023	436	190	N/A	N/A

	Employee Safety				Contractor Safety			
	SIF Rate	P-SIF Rate	TRIR	LTI Rate	SIF Rate	P-SIF Rate	TRIR	DART Rate
YTD 2025	0.00 	0.04 	1.51 	0.22 	0.00 	0.29 	1.16 	0.65 
2024	0.02	0.15	1.28	0.32	0.11	0.11	0.83	0.61
2023	0.00	0.19	1.48	0.39	0.05	0.17	0.64	0.45
2022	0.04	0.15	1.97	0.48	0.03	0.30	0.76	0.33



Positive year over year trend; continuous safety improvement



No significant change (+/- 10%) in year over year trend; opportunity for improvement











Negative year over year trend; needs attention for safety improvement

Safety Management System | Working together to improve safety

SIF: Actual Serious Injury or Fatality
P-SIF: Event with Potential for Serious Injury or Fatality
LTI: Lost Time (Days away from work) Incident

TRIR: Total Recordable Incident Rate
DART: Days Away, Restricted or Job Transfer

Public Safety & Operational Performance

January 1 – June 30, 2025							
CPUC Reportable Metric	YTD 2025		2024	2023	2022	2021	Trend
Public Serious Injuries and Fatalities (# Serious Injuries # Fatalities)	1 0		2 1	2 1	0 0	2 0	Zero Public SIFs due to system/equipment failure. One serious injury reported YTD (note: incident occurred 11/1/24 but was reported in 2025).
Fire Ignitions (# CPUC-reportable ignitions)	8		31	16	20	25	Fire activity in the service territory remained low YTD.
T&D OH Wires Down – including secondary & MEDs (# instances)	233		286	462	339	341	Increased wire down events during the abnormal Santa Ana wind events seen at the start of the year.
Electric Emergency Response (Average time in minutes)	46.80		49.05	47.15	46.59	49.71	YTD increased order count; consistent performance
Gas Emergency Response Time (Average time in minutes)	27.15		28.10	28.30	28.60	29.06	Consistent performance over the last few years attributable to 24/7 crews and improved dispatch times.
Gas Dig-ins (Third party dig-ins per 1,000 USA tickets)	1.05		1.10	1.11	1.19	1.54	Continuous year-over-year improved performance; strategy to reduce excavation damages includes proactive outreach and education initiatives
Control Time – Gas Shut-in Time Mains (Median time in minutes)	418.78		399.25	416.00	833.00	871.00	Continuous year-over-year improved performance
Control Time – Gas Shut-in Time Services (Median time in minutes)	86.45		90.50	88.58	98.08	127.00	Steady performance with teams identifying opportunism for continuous improvement

SDG&E Board Safety Committee

Topics reviewed by the Safety Committee during the past 12 months include:

SDG&E's Gas Integrity and Safety Programs

On-Site Field Visits to Gas Modernization Project and Electric Substation

SDG&E's Preparation for Extreme Weather Events

SDG&E Cybersecurity Update

Wood Pole Safety and Pole Integrity Management

Wildfire Safety and SDG&E's 2026-2028 Wildfire Mitigation Plan

SoCal Gas Safety Culture OII and Safety Culture Improvement Plan

Field Visits and Routine Work Customer Notifications

After Action Report on Sample Aviation Incident

2024/2025 Fire Season Lessons Learned and January Mutual Assistance Response

RAMP Regulatory Update

Annual Review of Safety Committee Charter

Recent SDG&E Board Safety Committee Recommendations

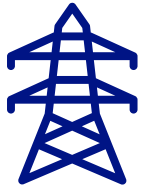
Recommendation	Status
Report on Company's efforts to prepare for extreme weather events , including flooding and tropical storms, as well as lessons learned from prior events	<input checked="" type="checkbox"/>
Report on potential safety hazards associated with pole failures , SDG&E's efforts to mitigate pole failure risks, and pole replacement safety	<input checked="" type="checkbox"/>
Review SDG&E's late 2024 and January 2025 PSPS events and mutual aid efforts in response to the LA fires , and report on any lessons learned	<input checked="" type="checkbox"/>
Provide an update on SDG&E's customer communications and notifications regarding field work and routine work notifications	<input checked="" type="checkbox"/>
Provide an update on the CPUC Safety Culture Assessment Rulemaking and SDG&E's upcoming CPUC Safety Culture Assessment (May 2025)	
Report on contractor safety performance and contractor safety performance accountability (October 2024)	
Report on prevention of injuries related to falling from heights , and lessons learned from any previous fall-related events (July 2025)	
Present on risks associated with out-of-service transmission lines in the High Fire Threat District (July 2025)	

2022 & 2023 Wildfire Safety Culture Assessment Report Recommendations

Leadership Prioritization of Safety	Risk from Interactions with the Public	Safety Event Reporting & Tracking	Increased Survey Participation
<ul style="list-style-type: none"> Consistent messaging; weekly company-wide leadership safety messaging; annual Start Strong safety event 	<ul style="list-style-type: none"> Launching SDG&E's Advance Field Customer Notifications companywide initiative 	<ul style="list-style-type: none"> Implemented process to assess, assign and track all actionable Near Misses through resolution 	<ul style="list-style-type: none"> Increasing awareness of safety culture initiatives at Contractor Safety Quarterly Meetings
<ul style="list-style-type: none"> Monthly Electric & Gas Safety Subcommittee meetings where employees can raise and discuss safety topics that are documented and tracked through resolution 	<ul style="list-style-type: none"> Issuance of customer courtesy text messages and emails 	<ul style="list-style-type: none"> Deployed enhancements to employee-wide Near Miss reporting dashboard; tracking anonymous reporting trends 	<ul style="list-style-type: none"> Hosting Wildfire “Double Down” and “Challenge” listening sessions to solicit input from cross-functional employees
<ul style="list-style-type: none"> Leadership engagement in Quarterly Executive Safety Council meetings soliciting direct feedback from front-line operational employees and supervision 	<ul style="list-style-type: none"> Advancing deployment of Geocall Electric Pre-Construction Mobile Fielding Application with enhanced hazard warnings 	<ul style="list-style-type: none"> Issuance of Weekly Near Miss Summary Report illustrating reporting trends, recognizing employees for speaking up, and providing updates on resulting safety improvements 	<ul style="list-style-type: none"> Identifying additional tools and resources to promote increased survey participation

SDG&E 2025 Goals: Operational & Safety Metrics

SDG&E's 2025 safety goals demonstrate ongoing commitment to safety across our entire organization and culture.



- Wildfire & PSPS System Hardening
- Vegetation Contacts in High Fire Threat District (HFTD) with High FPI
- PSPS Average Circuit Restoration Time (Hours)
- Electric Overhead Fault Rate During Elevated Fire Potential



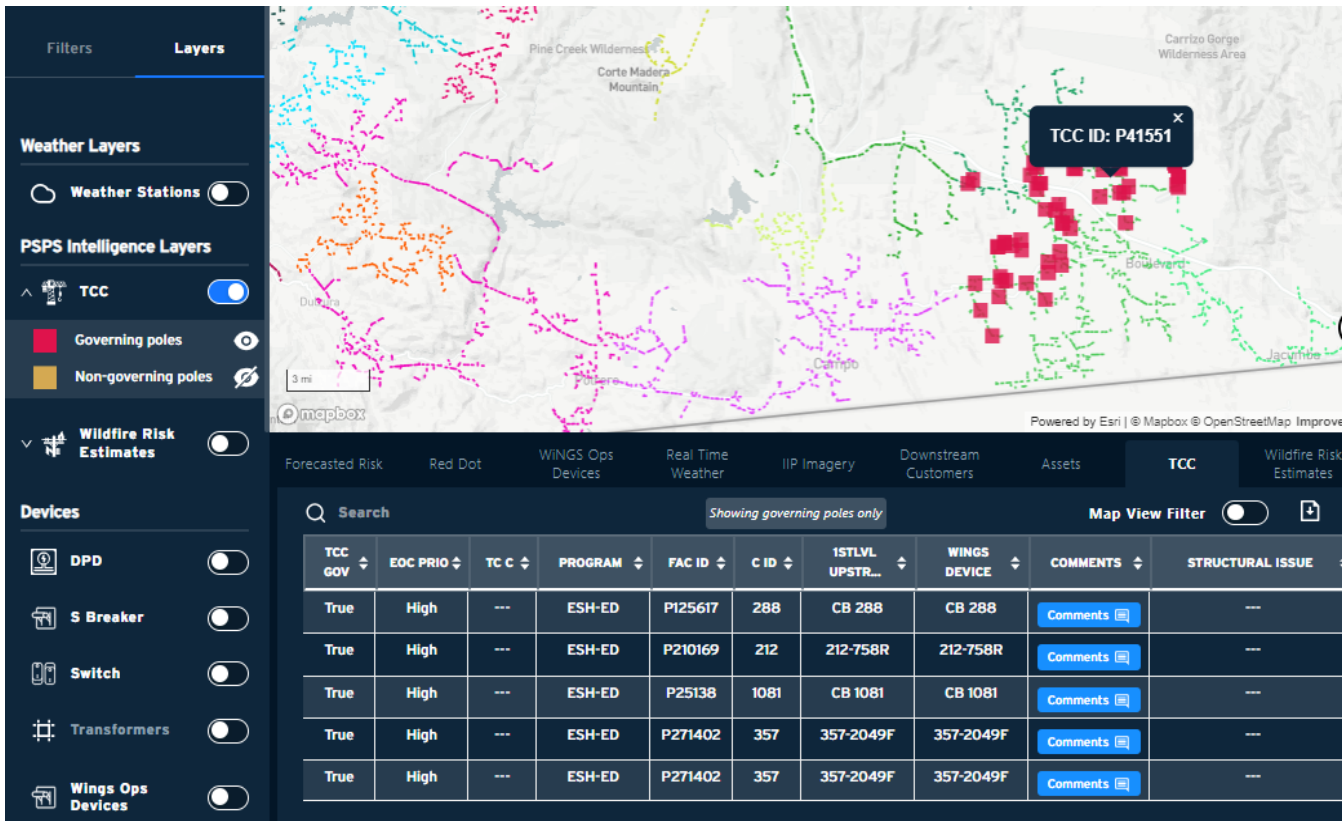
- Lost Time Incident (LTI) Rate
- Safe Driving Observations
- Field Safety Engagements
- Near Misses Reported



- Gas Integrity Management
- Damage Prevention Rate
- P1 Gas Response Time

WiNGS-Ops | Temporary Construction & Compliance (TCC)

The TCC layer in WiNGS-Ops allows for identification of high-risk TCC poles and risk-based prioritization of corrective work to reduce the scope of PSPS events and support PSPS de-energization decision-making.



Map view of all TCC poles with zoom capabilities along with quick reference to information by pole



Visibility of **all high-risk TCC poles**



Ability to filter poles by risk level within SDGE territory

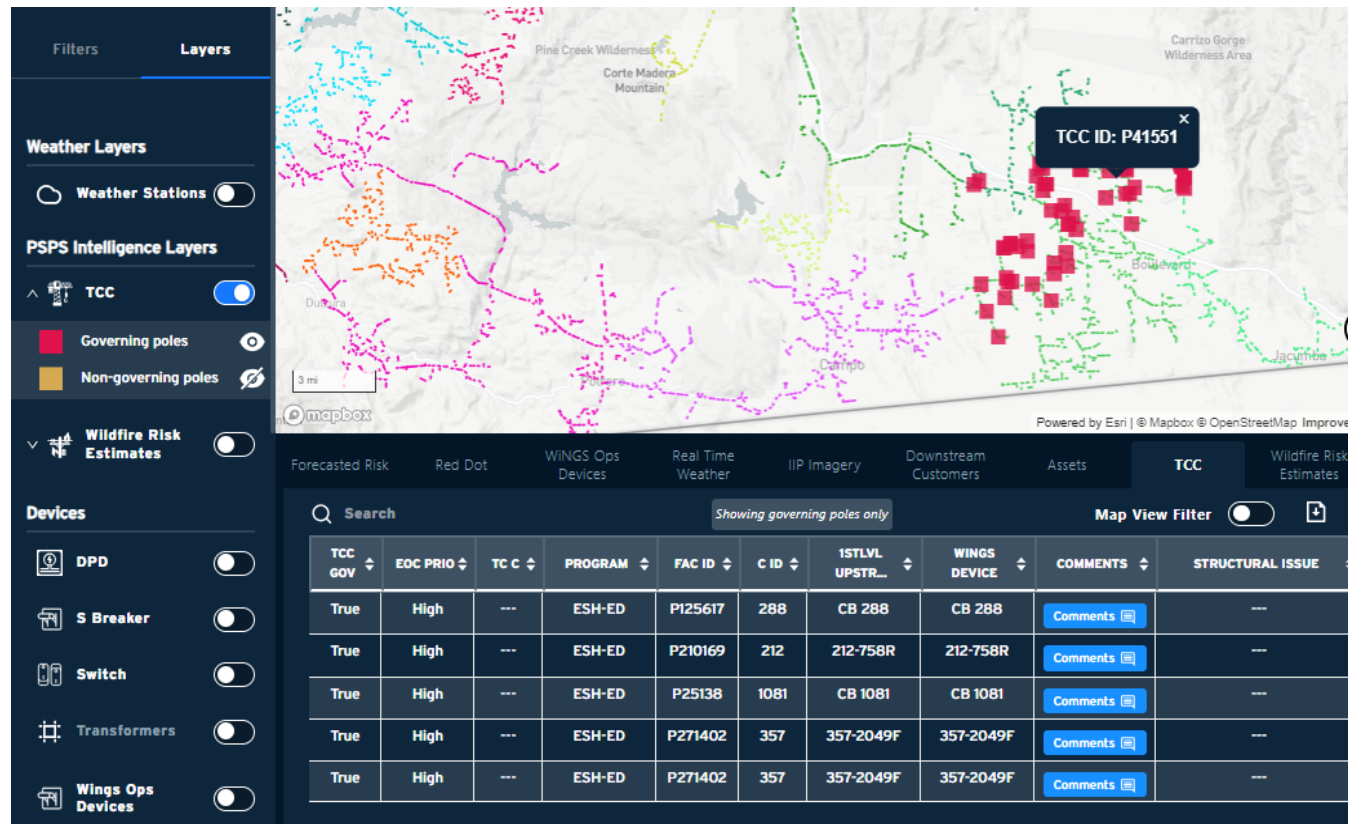


Intelligent Image Processing (IIP) Imagery for selected assets



Relevant data by pole, including upstream SCADA device, field comments, Vegetation Risk Index (VRI) impact, historical 95th and 99th percentile wind gust speeds, EOC priority, and circuit ID

Pre-Season Planning – Improvements and Changes



TCC – Temporary Construction and Compliance

- New process to run threshold and alert speed analysis on all newly identified conditions on a monthly basis
- Process helps identifies compliance conditions in heavily wind prone areas that may be a higher risk
- Evaluation of these higher risk conditions support prioritization of corrective work prior to fire season
- Corrective action prioritization decreases customer PSPS impact and overall risk

Critical Facilities and Infrastructure Plan:

- Plan outlines SDG&E's enhanced efforts to assess CFI customers' PSPS preparedness through refined survey questions aimed at obtaining updated information regarding PSPS contacts and backup generator capabilities.

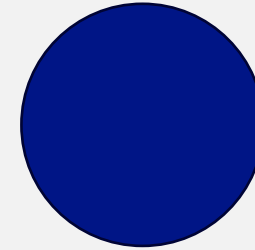
Lessons Learned

Strengths

- **Effective joint coordination** across departments enabled strong situational awareness and resource planning.
- A **consistent customer focus** was evident as responders adapted practices to meet customer needs, including adding overnight and additional CRC support, and ensured medical baseline customers were contacted.
- Responders **strongly emphasized safety** by continuing to focus on fatigue, hydration, and safe driving during extended activations.

Areas for Improvement

- **Customer Notification System requires enhancements** to enable a greater level of flexibility, granularity, and usability to facilitate effective customer notifications.
- **Operational PSPS procedures need updating** to ensure effective coordination among teams and streamline processes across events.
- **PSPS Data Processes and systems require review and alignment** to meet internal and external reporting and operational requirements.
- **State Executive Briefing PowerPoint template is cumbersome and manual process to complete.** Joint IOU's met with CALOES to discuss changes and modification. The recommendations are pending a decision from CALOES.



SDG&E continues to meet with PG&E and SCE as a working group monthly to discuss lessons learned and best practices related to PSPS. Key commonalities include:

- AFN support framework, in partnership with AFN leaders, to reduce risk and ensure safety for electric dependent customers.
- Process refinements for coordinating amongst utilities and communicating with customers on shared circuits.