

Marissa Blunschi Regulatory Affairs Principal Manager Marissa.Blunschi@edisonintl.com

March 3, 2025

Leslie Palmer, Director Safety Enforcement Division California Public Utilities Commission 505 Van Ness Avenue San Francisco, CA 94102

SUBJECT: SCE PSPS Post Event Report – January 2, 2025 to January 17, 2025

Dear Director Palmer:

As required by Resolution ESRB-8 and in accordance with Ordering Paragraph 1 of California Public Utilities Commission (CPUC) Decision (D.) 19-05-042, Southern California Edison Company (SCE) respectfully submits a post-event report for the PSPS event initiated on January 2, 2025 and concluded on January 17,2025.

This report has been verified by an SCE officer in accordance with Rule 1.11 of the Commission's Rules of Practice and Procedure.

If you have any questions, please do not hesitate to call.

Sincerely,

— DocuSigned by: Marissa Blunschi — DDF576B774674B8. /s/Marissa Blunschi

Marissa Blunschi Principal Manager, Regulatory Relations

cc: ESRB ComplianceFilings@cpuc.ca.gov

Southern California Edison Public Safety Power Shutoff (PSPS) Post-Event Report January 04, 2025

Filed with: The California Public Utilities Commission Submitted to: Director of the Safety and Enforcement Division Dated: March 03, 2025

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Introduction

In January 2025, Southern California Edison (SCE) faced an extraordinary convergence of extreme weather conditions that necessitated the implementation of Public Safety Power Shutoffs (PSPS) to protect communities from the devastating impacts of wildfires. The region has a highly flammable landscape due to back-to-back wet winters, which led to an abundance of vegetation growth, followed by a very dry fall and delayed winter rains. The extreme Santa Ana winds, with gusts reaching 70-80 mph and isolated gusts near 100 mph, arrived before significant precipitation while at the same time, relative humidity measurements often registered in single digits. These windstorms brought a high risk of fire spread and posed significant challenges to firefighting and restoration efforts, including limiting at times the availability of aerial fire suppression.

SCE recognizes that the January wildfires have been devastating for, and have personally affected, many members of our community. Everyone at Southern California Edison shares in the sorrow for the lives lost, neighborhoods devastated and many displaced friends, family members, neighbors and coworkers. We commit our full and best efforts to understand the causes of the recent wildfires, apply lessons learned to further reduce the risk of future wildfires and rebuild for a stronger, more resilient future.

SCE initiated a PSPS event on January 2, 2025, that lasted until January 17, 2025, resulting in 363,196 customers across eight counties and five Pacific Gas and Electric Company (PG&E) customers being de-energized. This event was the largest and most complex since the inception of SCE's PSPS program, driven by the widespread extreme winds and extreme fire risk. SCE's decision to de-energize power lines was not taken lightly; it was based on a thorough assessment of multiple factors, including weather and fuel conditions, infrastructure vulnerabilities caused by extreme winds, fire suppression resource availability, and the potential impacts on public safety partners and the communities. The decision to turn off power was necessary, although SCE recognizes the hardship it created for customers and communities. It is almost certain that SCE's use of PSPS prevented multiple fires from starting during that period. In fact, SCE patrols observed over 70 instances of damage on de-energized facilities where, if those facilities had been energized at the time the damage occurred with the concurrent high winds and dry fuels, there would have been a very significant risk of starting a potentially catastrophic wildfire. Additionally, de-energization avoided faults from vegetation blow ins that could have caused ignitions.

The following pictures represent just a few of the over 70 examples of damage to our facilities observed while conducting power restoration patrols on circuits de-energized during this event (please see Section 4.2 for additional details on damages).



During the PSPS event, SCE issued 7.7 million notifications to customers (both voluntary and required); resulting in over 20 million PSPS-related notifications when accounting for some customers receiving notifications in multiple formats. Despite the complexities introduced by the extreme weather and wildfires, SCE worked diligently to mitigate customer confusion, provide notifications, and maintain compliance with PSPS requirements. Recognizing the significant scale of the events, SCE sent daily emails to customers across its service area to provide an update on the windstorm, wildfires and PSPS.

Frankly, SCE experienced some communication challenges, which affected customer experience. At times, SCE made quick decisions to de-energize in anticipation of conditions breaching thresholds, which resulted in certain customers not getting notified in advance. These decisions were made in consideration of multiple wildfires occurring simultaneously across Southern California, stretching public safety resources thin, while the extreme winds limited the ability to use aerial fire suppression on several days. Appreciating the risk, SCE quickly decided to adjust its de-energization criteria to

further ensure public safety, which resulted in no prior notifications being sent to some customers before de-energization was initiated. Additionally, in the first few days of the activation, SCE was not able to send government officials a daily spreadsheet with summary status information at the circuitlevel because the manual process could not keep pace with the size of the event. Finally, thousands of customers who were de-energized in the PSPS event were fed by circuits damaged by the windstorm or wildfires, resulting in necessary repairs that delayed re-energization and contributing to customer confusion. SCE is committed to improving, and we have directed a dedicated team to examine its PSPS protocols with the goal of identifying opportunities for improvement. To inform these efforts, we already have begun seeking input from community members, public safety partners and local government officials.

In this post-event report, SCE demonstrates its compliance with California Public Utilities Commission's (CPUC or Commission) PSPS guidelines, including Resolution ESRB-8, PSPS Order Instituting Rulemaking (OIR) Phase 1 (Decision (D.) 19-05-042), Phase 2 (D.20-05-051), Phase 3 (D.¹) and PSPS Order Instituting Investigation (OII) (D.21-06-014). This report addresses the event that started on January 2, 2025 12:30 p.m. and ended on January 17, 2025, at 4:00 p.m. in Kern, Los Angeles, and Ventura, Mono, Orange, Riverside, San Bernardino, Santa Barbara, San Diego . In addition, five Pacific Gas and Electric Company (PG&E) were de-energized. This report explains SCE's decision to call, sustain and conclude the de-energization event, and provides detailed information to facilitate the Commission's evaluation of SCE's compliance with applicable PSPS guidelines.

AT A GLANC	E						
Total customers notified	Total customers de-energized	List of counties in scope	List of counties de-energized	Total distribution circuits in scope	Total distribution circuits de-energized	# of damage/ hazards found	Community resource centers (including CCVs)
712,769	363,196	Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, Santa Barbara, San Diego, and Ventura	Kern, Los Angeles, Orange, Riverside, San Bernardino, Santa Barbara, San Diego, and Ventura	619	373	72	31

Section 1. Executive Summary

1. Brief description of the PSPS event starting from the time when the utility's Emergency Operation Center is activated until service to all customers has been restored.

The event covered an extended Period of Concern (POC) as a result of evolving weather forecasts. During this event, 363,196 SCE customers and five PG&E customers were de-energized in Kern, Los Angeles, Orange, Riverside, San Bernardino, Santa Barbara, San Diego and Ventura counties. A summary of the timeline for this event is provided below.

¹ This PSPS post-event report is based on the best information and data available as of the filing deadline for the report. SCE continues to gather, analyze, and validate some of the underlying data, and will supplement this report with updated information, as needed, in its annual post-season report. *See* D.21-06-014, Ordering Paragraph (OP) 66, p. 305 (directing SCE to "provide aggregate data . . . in an annual report, including aggregate data that may not have been available at the time the utility filed the 10-day post-event report"). SCE submits this report on March 3, 2025 pursuant to the January 31, 2025 Letter from Executive Director Peterson granting an extension of time. P a g e 5 | 66

On January 2, 2025, SCE's meteorologists identified the potential for dangerous fire weather conditions due to an incoming Pacific storm system beginning on January 3, 2025, in portions of San Bernardino and Santa Barbara counties. Breezy onshore winds were forecast to create localized areas of elevated fire weather concerns along the San Bernardino Mountain desert-facing slopes followed by northerly offshore winds in portions of Santa Barbara County on the evening of January 4. In response to this forecasted fire weather, SCE activated its dedicated PSPS Incident Management Team (IMT) on January 2, 2025 at 12:30 p.m. to manage this event and began sending advance notifications of potential PSPS to Public Safety Partners, Critical Facilities and Infrastructure customers and other customers in scope. SCE also coordinated with PG&E to dispatch notifications to impacted PG&E customers.

SCE continued to monitor fire weather conditions after activating the PSPS IMT. Forecasts evaluated by SCE meteorologists on January 3 showed Santa Ana winds developing on the morning of January 5 as the storm system moved inland with Santa Ana wind-prone portions of Los Angeles, San Bernardino, and Ventura counties added to scope. Forecasts on January 4 extended the Santa Ana winds and period of concern through January 8 and expanded the scope to include Kern, Orange and Riverside counties due to a deepening cut-off low pressure system forecast to impact the territory. Analyses of the forecast data generated on January 4 and subsequently on January 5 indicated Santa Ana winds would increase to strong levels across wide areas by January 7, with widespread wind gusts of 45 to 80 mph expected and localized areas reaching 100 mph. On January 6, meteorologists extended the period of concern to January 9 for Santa Ana wind-prone areas as the low-pressure system was forecast to stall off the coast. On January 7, meteorologists extended the period of concern to January 10 for more exposed Santa Ana wind-prone areas due to persisting offshore flow. On January 8, meteorologists identified a new area of low pressure expected to drop into the Great Basin on January 11, resulting in another round of weak to moderate Santa Ana winds, with the period of concern extending through part of January 12. On January 9, Mono County was added to scope based on real-time conditions and new forecast data for a single circuit. Forecasts on January 10 resulted in the extension of the period of concern through January 15 due to forecast continued Santa Ana winds. On January 14, meteorologists extended the period of concern through a part of January 16 due to lingering offshore flow expected in more exposed areas.

Given this forecast, SCE's fire science experts consulted the Geographic Area Coordination Center (GACC)² for forecast alignment to evaluate potential fire weather impacts. The GACC agreed with SCE's forecast of elevated fire weather for this PSPS event. The National Weather Service (NWS) also issued Red Flag and High Wind Warnings or Wind Advisories for portions of Los Angeles, Orange, Riverside, San Bernardino, Santa Barbara, and Ventura counties during portions of the Period of Concern. A severe Red Flag Warning known as a Particularly Dangerous Situation was issued for portions of Los Angeles and Ventura Counties during portions of the Period of Concern for the expected damaging winds and possible extreme fire behavior. High Wind Warnings or Wind Advisories were also issued for portions of Kern County during portions of the Period of Concern.

This PSPS event concluded on January 17, 2025 at 4:00 p.m. after fire weather conditions were no longer forecasted to impact the SCE service area.

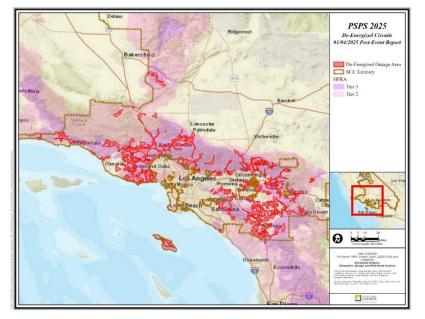
1. A table including the maximum number of customers notified and actually de-energized; number of counties de-energized; number of tribes de-energized; number of Medical Baseline customers de-energized; number of transmission and distribution circuits de- energized; damage/hazard count; number of critical facilities and infrastructure de-energized.

Table 1: PSPS Event Summary^{2,3}

PSPS Notified De-energized Cancelled MBL Customers Number of Counties Number of Tribes Facilities and Infrastucture Transmission De-energized Circuits in Circuits Counties Counties Tribes Facilities and Infrastucture Circuits in Circuits Counties	PSPS Event	Summary												
PSPS Notified De-energized Cancelled MBL Customers Number of Counties Number of Tribes Facilities and Infrastucture Transmission De-energized Circuits in Circuits Counties Counties Tribes Facilities and Infrastucture Circuits in Circuits Counties		Total Customers De-energized Number of Circuits							De-energized Number of Circuits					
712,769 363,196 382,720 11,740 8 14 6,800 4 619 373 72	PSPS Notified	De-energized	Cancelled				Facilities and		Circuits in	Circuits				
	712,769	363,196	382,720	11,740	8	14	6,800	4	619	373	72			

Information related to PG&E customers is included in Section 12.

2. A PDF map depicting the de-energized area(s)



Section 2. Decision-Making Process

1. A table showing factors considered in the decision to shut off power for each circuit deenergized, including sustained and gust wind speeds, temperature, humidity, and moisture in the vicinity of the de-energized circuits.⁴

² "PSPS Notified" metric in Table 1 reflects the total number of unique customers that were sent a pre-event notification of potential de-energization during the PSPS event. "Cancelled" metric in Table 1 reflects the total number of unique customers that were sent a pre-event notification of potential de-energization, but not ultimately de-energized (regardless of whether those customers received a cancellation notice). Please see Section 5 of this report regarding missed notifications and cancellation notice metrics.

³ As described in SCE's February 6, 2025, letter to the Wildfire Safety Enforcement Branch of the CPUC, on January 12, 2025, and again on January 20, 2025, SCE de-energized four transmission circuits in Eaton Canyon: Mesa-Vincent No. 1, Mesa-Vincent No. 2, Goodrich-Gould, and Eagle Rock-Mesa. De-energization of these four lines was prompted by the unique circumstances during the concurrent wildfire and PSPS events in January and did not result in any customer outages.

⁴ SCE calculates a Fire Potential Index (FPI) rating for each circuit in scope for de-energization. FPI estimates the likelihood of a spark turning into a major wildfire. FPI uses a whole-number scale with a range from 1 to 17 categorized as normal (1-11), elevated (12-14) and extreme (15+). FPI inputs include wind speed, dewpoint depression (which is a measure of how dry the air is) and various fuel moisture parameters, as detailed in Section 2-2 of this report. Other variables, such as temperature and humidity, while potential contributors to fire spread, are not direct inputs into the FPI calculation. Temperature and humidity are accounted for indirectly through the inclusion of dewpoint depression. Because temperature, humidity and moisture are not distinct "factors considered" in SCE's de-energization decisions, they are not reported separately but are reflected in the actual FPI rating for each de-energized circuit, as shown in Table 2. The notation "N/A" (Not Applicable) in

Factors Considered in Decision to De-Energize										
Circuit	Sustained Wind Speed				Gust Wind Speed		Fire Potential I	Firecast		
De-energized	Activation Threshold	De-energization Threshold	Actual	Activation Threshold	De-energization Threshold	Actual	Threshold	Actual	Output Ratio	
ACADIAN	28	27.59	27.32	39	39.26	45.23	12	12.02	112.5779379	
ACRES	31	27.90	24.23	46	41.40	35.22	11	12.51	40.18313454	
ACROBAT	31	31.00	26.81	46	46.00	38.14	12	11.14	65.15302462	
AIDAN	31	31.18	21.87	45	44.79	37.92	12	12.22	377.7131929	
ALLVIEW	31	31.00	16.97	46	46.00	41.28	11	10.86	48.17567688	

Table 2: Factors Considered in Decision to De-Energize⁵ (Continued in Attachment C)

2. Decision criteria and detailed thresholds leading to de-energization including the latest forecasted weather parameters versus actual weather. Also include a PSPS decision-making diagram(s)/flowchart(s) or equivalent along with narrative description.

SCE uses preset wind and gust thresholds for dangerous wind conditions that create increased fire potential (including wind speeds, humidity, fuel moisture levels and other factors as the basis for PSPS decision-making, as described in SCE's technical paper).⁶ De-energization thresholds are determined separately for each circuit to prioritize circuits for de-energization based on the specific risks of the event. This is particularly important for large events where many circuits must be evaluated simultaneously. In addition, escalating weather conditions and operational complexities are considered when making de-energization decisions.

These thresholds are set for each of the circuits in SCE-designated high fire risk areas (HFRAs) and are continuously reviewed to calibrate the risk of significant events against the potential for harm to customers from the loss of power.

All circuits have an activation threshold, defined by the Fire Potential Index (FPI), and sustained and gust wind speeds at which they are considered at risk. Activation thresholds are computed for each circuit for the season.

FPI is calculated using the following inputs:

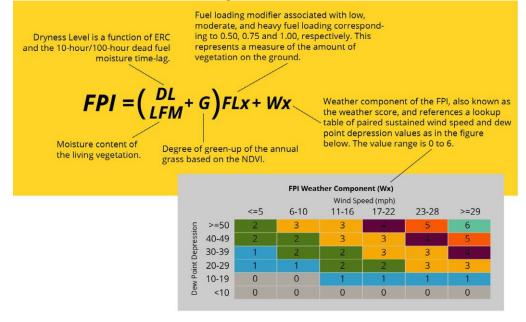
Table 2 means that Sustained Wind Speed, Gust Wind Speed and Fire Potential Index (FPI) data are not available for downstream circuits which are included in Table 2 solely because these circuits are electrically connected to circuits in scope for potential de-energization. A downstream circuit would be de-energized if the parent circuit to which it is connected exceeds PSPS criteria. Factors considered in decisions to de-energize customers on downstream circuits is already accounted for in Table 2 for the parent circuits.

⁵ Actual sustained and gust wind speeds in Table 2 are recorded at the time the decision was made to begin de-energization and do not reflect peak wind and gust speeds observed during the Period of Concern (which could be higher). Deenergization of a circuit generally occurs when conditions are approaching and expected to meet or exceed either sustained wind de-energization threshold or gust wind de-energization, in tandem with the circuit's FPI threshold.

⁶ SCE's detailed technical paper, Quantitative and Qualitative Factors for PSPS Decision-Making, can be found at <u>https://download.newsroom.edison.com/create_memory_file/?f_id=609d61cbb3aed37d0f3d5f6a&content_verified=True</u> and in Attachment B of this report.

- Wind speed Sustained wind velocity at 6 meters above ground level.
- Dew point depression The dryness of the air as represented by the difference between air temperature and dew point temperature at 2 meters above ground level.
- Energy release component (ERC) "The available energy (BTU) per unit area (square foot) within the flaming front at the head of a fire ... reflects the contribution of all live and dead fuels to potential fire intensity." ⁷
- 10-hour dead fuel moisture A measure of the amount of moisture in ¼-inch diameter dead fuels, such as small twigs and sticks.
- 100-hour dead fuel moisture A measure of the amount of moisture in 1- to 3-inch diameter dead fuels, i.e., dead, woody material such as small branches.
- Live fuel moisture A measure of the amount of moisture in living vegetation.
- Normalized Difference Vegetation Index (NDVI) "... used to quantify vegetation greenness and is useful in understanding vegetation density and assessing changes in plant health." ⁸

Visual 1. Fire Potential Index Equation⁹



⁷ U.S. Department of Agriculture. n.d. "Energy Release Component (ERC) Fact Sheet." Forest Service. Accessed April 14, 2021. https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5339121.pdf.

⁸ U.S. Department of the Interior. n.d. Landsat Normalized Difference Vegetation Index. Accessed May 15, 2024. https://www.usgs.gov/core-science-systems/nli/landsat/landsat-normalized-difference-vegetation-index?qt-science_support_page_related_con=0#qt-science_support_page_related_con.

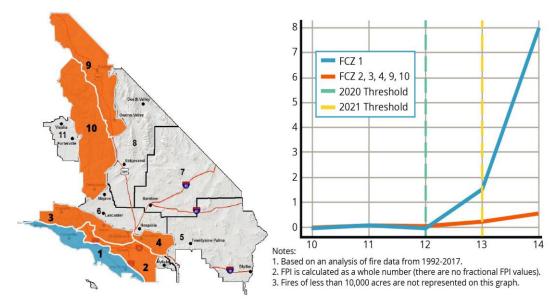
⁹ For more information on SCE's Fire Potential Index, including the insertion of the Live Fuel Moisture variable, please see SCE's 2023-2025 Wildfire Mitigation Plan, *available at* <u>https://www.sce.com/sites/default/files/AEM/Wildfire%20Mitigation%20Plan/2023-2025/SCE%202023%20WMP%20R2clean.pdf</u>, pp. 512-516).

Initially, SCE set the FPI threshold to 12 for all circuits in SCE's high fire risk areas. Starting on Sept. 1, 2021, SCE raised the FPI to 13 for most areas and most events based on a risk analysis of historical fire data. ¹⁰ Exceptions where the FPI threshold continued to be set at 12 include:

- Fire Climate Zone 1 (FCZ1) (Coastal region) The threshold for FCZ1 remains at 12 because probability calculations indicated a significantly higher ignition risk factor at an FPI threshold of 13 for this FCZ than for other FCZs (2, 3, 4, 9 and 10). (Figure 2)
- Geographic Area Coordination Center (GACC) preparedness level of 4 or 5 The GACC coordinates multiple federal, state, and regional fire suppression resources. It provides daily fire preparedness levels on a scale of 1-5. A high score signals there is significant resource drawdown (i.e., fire agencies spread thin) which could negatively impact fire response times.
- Circuits located in an active Fire Science Area of Concern (AOC) AOCs are areas within FCZs that

are at high risk for fire with significant community impact. This designation is based on factors that are part of FPI, as well as egress, fire history and fire consequences. Further details about AOCs can be found in SCE's Wildfire Mitigation Plan.¹¹

Visual 2. Probability of Wind-Driven Fires at 10,000 Acres at FPI 12 and 13¹²



In 2023, SCE identified certain remote and isolated areas (less than 1% of SCE's high fire risk area) where an FPI threshold of 11 may be appropriate to mitigate additional fire risk created by unique factors such as extremely limited egress and constrained fire suppression capability. SCE does not anticipate a significant increase in PSPS events as a result of lowering the FPI threshold in these areas.

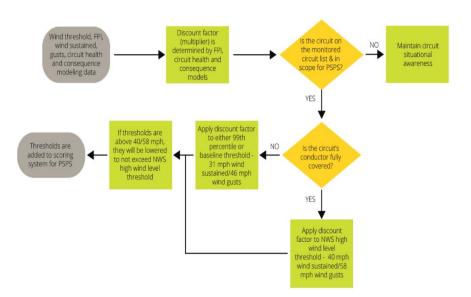
¹⁰ Short, Karen C. 2017. Spatial wildfire occurrence data for the United States, 1992-2015 [FPA_FOD_20170508]. 4th Edition. Fort Collins, CO: Forest Service Research Data Archive https://doi.org/10.2737/RDS-2013-0009.4 Supplemented with 2016-2017 ignition data supplied directly by CalFIRE via email.

¹¹ SCE's 2023-2025 Wildfire Mitigation Plan Update dated April 2, 2024.

¹² Based on back cast FPI calculation.

For each PSPS event, every circuit has a de-energization threshold. De-energization thresholds are determined separately for each circuit to prioritize circuits for de-energization based on the specific risks of the event. This is particularly important for large events where many circuits must be evaluated simultaneously. There are a handful of circuits that have legacy thresholds below the NWS advisory level because they have a history of local circuit outages at lower wind speeds.

De-energization thresholds account for circuit health, including any issues identified through patrols, and are also informed by a consequence score for each specific high fire risk area. The consequence score estimates the impact of an ignition on communities. The higher the score, the greater the risk to a particular location from wildfires. SCE's process for calculating de-energization thresholds is outlined below.



Visual 3. PSPS Decision-Making Flowchart/Diagram

If actual conditions suggest more risk, such as in complex, large-scale events when many circuits are under consideration for shutoffs and when multiple circuits are approaching de-energization criteria simultaneously, SCE may de-energize circuits prior to meeting criteria if they are expected to meet or exceed thresholds, which occurred during this event. This step prioritizes circuits that represent the highest risk for potential de-energization before circuits with lower risk.

De-energization thresholds may be raised for segments or circuits where covered conductor is installed. The de-energization threshold for segments with covered conductor is typically 40 mph sustained/58 mph gusts, which aligns with the NWS high wind warning level for windspeeds at which infrastructure damage may occur.

The thresholds for the circuits in scope for potential de-energization during this event were set as follows:

Table 5. Circuit Tinesholus		ttachment cj									
Circuit Thresholds											
Circuit	FPI Threshold Rating	Wind Speed Activ	vation Thresholds	De-Energizati	on Thresholds						
		Sustained Wind	Gust Wind	Sustained Wind	Gust Wind						
ACADIAN	12	27.59	39.26	27.59	39.26						
ACRES	11	31.00	46.00	27.90	41.40						
ACROBAT	12	31.00	46.00	31.00	46.00						
AIDAN	12	31.00	44.79	31.18	44.79						
ALLVIEW	11	31.00	46.00	31.00	46.00						

Table 3: Circuit Thresholds¹³ (Continued in Attachment C)

Forecasted versus actual weather parameters for this event were as follows:

- Wind: Sustained winds of 25-to-50 mph with isolated areas of sustained winds up to 60 mph, along with wind gusts of 45-to-80 mph with isolated areas of wind gusts up to 100 mph were forecast for Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, Santa Barbara and Ventura counties during the peak of this PSPS event. Peak observed wind speeds in areas of concern were 75 mph sustained and 100 mph gusts during this event.
- Relative humidity: Relative humidity during this event was forecast to be between 5% and 15% across Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, Santa Barbara, and Ventura counties concurrent with the strong winds during the peak of this PSPS event. Actual observed relative humidity ranged from 4% to 23% during this event. As detailed in Section 2-1 above, relative humidity is just one of many variables that inform SCE's FPI ratings.

3. A thorough and detailed description of the quantitative and qualitative factors SCE considered in calling, sustaining, or curtailing each de-energization event including any fire risk or PSPS risk modeling results, and a specification of the factors that led to the conclusion of the de-energization event.

SCE's PSPS decisions are based on quantitative analyses while accounting for qualitative factors such as societal and emergency management impacts. SCE utilizes power shutoffs as a measure of last resort to protect public safety when other alternatives to de-energization have been exhausted. Decisions to de-energize customers during this PSPS event considered and weighed the quantitative and qualitative factors detailed below:

- Consultation with the GACC regarding SCE's forecast of elevated fire weather potential.
- Ongoing assessments before the Period of Concern from SCE's in-house meteorologists using high-resolution weather models to determine the potential scope of the PSPS event, as well as real time weather data from SCE's weather stations and publicly available weather stations during the Period of Concern.
- Fire spread modeling to identify areas having the greatest potential for significant fire activity.

¹³ The notation "N/A" (Not Applicable) in Table 3 means that Fire Potential Index (FPI) Threshold Rating, Wind Speed Activation Threshold and De-Energization Threshold are not available for downstream circuits which are included in Table 3 solely because these circuits are electrically connected to circuits in scope for potential de-energization. A downstream circuit would need to be de-energized if the parent circuit to which it is connected exceeds PSPS criteria. Circuit threshold for customers on downstream circuits is already accounted for in Table 3 for the parent circuits.

Results of this modeling by SCE identified the potential for fire:

- In the one thousand (1,000) to four thousand (4,000)-acre range in the San Bernardino desert slopes during the initial Period of Concern
- In the two thousand (2,000) to seven thousand (7,000)-acre range for Santa Barbara and typical Santa Ana wind prone areas through Sunday, January 5
- In the five thousand (5,000) to ten thousand (10,000)-acre range with many areas exceeding ten thousand (10,000)-acre potential and up to forty thousand (40,000)-acre potential for the Santa Ana wind prone areas and Southern California mountain slopes during the consecutive Santa Ana Wind days
- Observed weather parameters for this PSPS event, including sustained and/or gust wind speeds and FPI ratings for the circuits in scope relative to the preset thresholds for this event.
- National Weather Service issued watches and warnings for areas of concern in SCE service area.
- Loss of communication with grid Supervisory Control and Data Acquisition (SCADA) system and tools, resulting in times at de-energization of circuits below threshold. For more details, see Section 5, Notifications.
- Multiple fires and lack of aerial suppression resources factored into adjustment of FPI and deenergization prior to reaching wind thresholds. For more details, see Section 11, Lessons Learned.

SCE considered the following factors when deciding to conclude this de-energization event:

- Weather modeling for areas of concern. SCE's meteorologists indicated elevated fire weather conditions would continue to abate below wind and FPI thresholds throughout the day on January 16 due to forecasted decreasing wind speeds and FPI.
- Observed wind speeds and FPI ratings. Observed wind and FPI ratings for all circuits in scope no longer met de-energization threshold criteria as of 9:02 a.m. on January 16.
- 4. An explanation of how the utility determined that the benefit of de-energization outweighed potential public safety risks, and analysis of the risks of de-energization against not de-energizing. The utility must identify and quantify customer, resident, and the general public risks and harms from de-energization and clearly explain risk models, risk assessment processes, and how the power disruptions to customers, residents, and the general public is weighed against the benefits of a proactive de-energization.

SCE assesses and compares potential public safety risks associated with proactive de-energization (PSPS risk) and simulated wildfire risk (PSPS benefit in avoiding a wildfire) for all circuits in scope for the Period of Concern, using its PSPS In-Event Risk Comparison Tool. ¹⁴ Inputs to this tool include, among other factors, wildfire simulations and circuit specific data. The results of the circuit specific assessments are displayed in the Central Data Platform and are used by Incident Commanders to inform de-energization decisions, in conjunction with other relevant quantitative and qualitative factors described in Section 2 of this report. Incident Commanders consider these assessments in

¹⁴ SCE will continue to refine the PSPS In-Event Risk Comparison Tool based on real-time experience, additional data, modeling enhancements and ongoing benchmarking with other IOUs. Estimates and assumptions described herein are based on risk models reflecting current industry best practices (such as FireRisk (formally FireCast)) and are subject to being updated as the modeling improves.

making de-energization decisions to make sure the wildfire risk (PSPS benefit in avoiding a wildfire) outweighs the risk associated with PSPS for each circuit in scope.

The circuit-specific criteria and data used in this assessment include:

- **For PSPS Risk**: Customers served, estimated population and the relative ranking of the circuits in scope by the percentage of Access and Functional Needs (AFN) and Non-Residential Critical Infrastructure (NRCI) customers.
- For Wildfire Risk: Wildfire simulations (using Technosylva FireRisk15 modeling) for potential ignitions based on dynamic, in-event weather and wind conditions in proximity to the circuits in scope for de-energization. These conditions are used to determine the extent of an estimated fire footprint (or fire shed). Within that fire shed, the risk of a wildfire is calculated based on the number of structures, population and acres potentially threatened within the impacted area.

The resulting outputs of the PSPS In Event Risk Comparison Tool are used to calculate potential safety, financial and reliability impacts (or attributes) of: (1) a wildfire and (2) a proactive deenergization event, as summarized in the table below:

Risk Attribute	Wildfire Consequences	PSPS Consequences
Safety	SCE calculates the estimated number of fatalities and serious injuries based on a forecast of impacted population within the Technosylva wildfire consequence simulation. This number, in turn, is converted into the Safety index.	SCE leverages epidemiological studies and information drawn from past widespread power outage events including the 2003 Northeast Blackout, the 2011 Southwest Blackout, and the IOUs' 2019 PSPS post- event reports. ¹⁶ The resulting estimates of fatalities and serious injuries per customer minutes interrupted (CMI) are intended to approximate potential safety consequences due to the power outage, such as illnesses resulting from food spoilage or exacerbation of existing underlying health conditions. SCE enhanced the PSPS safety attribute through the application of a circuit-specific AFN/NRCI multiplier. This multiplier represents the relative ranking of each circuit based on the number of AFN and NRCI customers on the circuit.
Reliability	SCE assumes 24 hours without power per customer on each circuit in scope due to wildfire. This duration was used to maintain consistency with Technosylva 24-hour fire propagation simulation, as well as the PSPS impact duration.	SCE estimates the total customer minutes interrupted (CMI) due to proactive de-energization on a circuit. It is the product of the number of customers on a circuit and the total number of minutes of estimated interruption. SCE assumes 1,440 CMI per customer (24 hours x 60 minutes) to represent de-energization over a 24-hour period.

 ¹⁵ Technosylva is a suite of wildfire simulation models or tools. While relying on a similar underlying fire propagation engine, each model is designed to support a unique use case. FireRisk (formally FireCast) is specifically designed to forecast ignition risk associated with electric utility assets over a 7-day horizon based on expected short-term weather conditions.
 ¹⁶ See, e.g., Anderson, G.B., Bell, M.B (2012). Lights Out: Impact of the August 2003 Power Outage on Mortality in New York, NY, *Epidemiology* 23(2) 189-193. doi: 10.1097/EDE.0b013e318245c61c.

	SCE calculates the financial impact of wildfire by assigning a dollar value to the buildings and acres within the fire shed potentially	SCE conservatively assumes \$250 ¹⁸ per customer, per de-energization event to quantify potential financial losses for the purpose of comparing PSPS risk to
Financial	acres within the fire shed potentially threatened by wildfire. For buildings, SCE uses a system average replacement value assumption. For acres, SCE uses assumed costs of suppression and restoration. ¹⁷	losses for the purpose of comparing PSPS risk to wildfire risk. The figure represents potential customer losses, such as lost revenue/income, food spoilage, cost of alternative accommodations and equipment/property damage. This value is based on a Value of Lost Load (VoLL), which is a widely accepted industry methodology to estimate a customer's willingness to accept compensation for service interruption. VoLL is dependent on many factors, including the type of customer, the duration of the outage, the time of year and the number of interruptions a customer has experienced. SCE's VoLL estimate is consistent with academic and internal studies to estimate VoLL for a single-family residential
		customer for a 24-hour period.

The resulting natural unit consequences for PSPS and wildfire risk are converted to unit-less risk scores — one for PSPS risks and one for wildfire risks¹⁹ using SCE Multi-Attribute Risk Score (MARS) framework.

The use of a unit-less risk score allows SCE to compare the resulting risk scores to each other by dividing the wildfire risk score (*i.e.*, the potential benefit of PSPS) by the PSPS risk score (*i.e.*, the potential public harm of PSPS). The calculation results in an easily interpretable benefit/risk ratio for each circuit in scope.

If the resulting ratio is equal to 1, wildfire and PSPS risk are equal to one another. If the ratio is greater than one, wildfire risk exceeds PSPS risk (the higher the resulting number, the more the wildfire risk outweighs the PSPS risk). If the ratio is less than 1, PSPS risk outweighs the wildfire risk.

¹⁹ MARS is SCE's version of Multi-Attribute Value Function (MAVF). The MAVF was developed as part of the Safety Model Assessment (S-MAP) proceeding and is used in the utilities' 2018 Risk Assessment Mitigation Phase (RAMP) Report (I.18-11006, pp. 1-28) filings to compare risks and mitigation alternatives. SCE has improved its MARS framework since first developing it for the 2018 RAMP. SCE MARS 2.0 attributes, units, weights, ranges and scales are shown below, and are further described in SCE's 2022 RAMP report. See A.21-05-13, Chapter 2 – Risk Model and RSE Methodology.

Attribute	Unit	Weight	Range	Scaling
Safety	Index	50%	0 - 100	Linear
Reliability	CMI	25%	0 – 2 billion	Linear
Financial	\$	25%	0 – 5 billion	Linear

¹⁷ Suppression costs are based on a five-year average of California's reported wildfire suppression costs from 2016-2020. Restoration costs are assumed to be \$1,227/acre based on research papers published by the Bureau of Land Management.

¹⁸ SCE utilizes \$250 per customer, per de-energization event to approximate potential financial losses on average, recognizing that some customers may experience no financial impact, while other customers' losses may exceed \$250. The \$250 value is a conservative assumption used for the limited purpose of estimating the potential financial consequences of PSPS as one of many inputs into SCE's PSPS In-Event Risk Comparison Tool. It is not an acknowledgment that any given customer has or will incur losses in this amount, and SCE reserves the right to argue otherwise in litigation and other claim resolution contexts, as well as in CPUC regulatory proceedings.

The table below displays circuit-specific inputs — including the number of customers on a circuit, AFN/NRCI multiplier, number of acres and buildings potentially threatened — all of which are used to calculate the PSPS and wildfire risk scores (shown in columns titled "PSPS Risk" and "Wildfire Risk") These risk scores are then compared in the last column (highlighted in yellow) titled "FireRisk Output Ratio," which shows the ratios of wildfire risk (corresponding to potential benefit of PSPS) to PSPS risk (corresponding to potential public harm from PSPS) for each circuit in scope. All ratios in the "FireRisk Output Ratio" column are greater than 1, meaning that the wildfire risk exceeded PSPS risk for all circuits in scope. These results were presented to the Incident Commanders in advance of de-energization to inform PSPS decision-making.

A							,			
PSPS Risk vs. Benefit Comparison Tool										
Circuit	All Customers	Population	AFN/NRCI	CMI	Firecast	Firecast Buildings	Firecast Population	(24 hr Impact-	Wildfire Risk (24hr Impact- PSPS Model)	Output
ACADIAN	1545	4635	1.23794092	1440	3855.5	461	718	0.000326819	0.036792611	112.57794
ACRES	2232	6696	1.20166571	1440	1836.3	234	841	0.000470898	0.01892214	40.183135
ACROBAT	2264	6792	1.23732632	1440	4439	387	489	0.000478890	0.031201138	65.153025
AIDAN	974	2922	1.22467785	1440	9092	978	1688	0.000205835	0.077746541	377.71319
ALLVIEW	303	909	1.01196532	1440	83.832	38	93	0.000063042	0.003037085	48.175677

Table 4: PSPS Risk vs. Benefit Comparison Tool (Continued in Attachment C)

For this de-energization event, the results of the PSPS Risk vs. Benefit Comparison Tool supported SCE's decision to de-energize, indicating that all circuits de-energized during this event²⁰ had a PSPS benefit/risk ratio greater than one (1). Thus, the estimated benefit of PSPS outweighed the estimated risk of PSPS for this event.

5. Explanation of alternatives to de-energization and other wildfire mitigation measures in deenergized areas; PSPS last resort analysis.

SCE deploys a suite of wildfire risk mitigation measures aimed at reducing the probability of ignitions associated with electrical infrastructure in high fire risk areas without resorting to PSPS. These activities include grid hardening measures, such as installation of covered conductor; repair or replacement of equipment on poles (e.g., crossarms, transformers); and installation of protective devices (e.g., fast acting fuses and relay settings).²¹ In addition, SCE has implemented operational practices, including enhanced inspections, vegetation management and fire climate zone operating restrictions²² in high fire risk areas. Certain protective measures, such as fast curve settings and fire

²⁰ The table showing the results of the PSPS Risk vs. Benefit Comparison Tool includes ratios for <u>all</u> de-energized circuits for this event, all of which indicate the benefit of wildfire avoidance (achieved through PSPS or other mitigation measures) exceeded PSPS risk. As noted above, the results of the Tool are among many quantitative and qualitative factors considered by SCE in its PSPS decision-making process. The notation "N/A" (Not Applicable) in Table 4 means that FireCast data for wildfire risk (Acres Impacted, Buildings Impacted, and Population Impacted) is not available for downstream circuits which are included in Table 4 solely because these circuits are electrically connected to circuits in scope for potential de-energization. A downstream circuit would need to be de-energized if the parent circuit to which it is connected exceeds PSPS criteria. PSPS risk for customers on downstream circuits is already accounted for in the ratios shown in Table 4 for the parent circuits. FireCast ratio for circuits that serve no customers is marked "INF" (Infinite) because these circuits have no associated PSPS risk but still have wildfire risk, so the ratio is weighted solely on wildfire risk.

²¹ Fast curve settings reduce fault energy release by increasing the speed with which a protective relay reacts to most fault currents. Fast curve settings can reduce heating, arcing, and sparking for many faults compared to conventional protection equipment settings. More details are in SCE's 2023-2025 Wildfire Mitigation Plan Update, initiative SH-6.

²² SCE's System Operating Bulletin No. 322 includes provisions for enabling fast curve settings on distribution line reclosers and circuit breakers, recloser blocking, line patrols and requirements for personnel to be physically present when operating air-break switching devices.

climate zone operating restrictions, are applied to a majority of circuits in high fire risk areas and are typically in effect for the duration of the fire season; others, such as covered conductor, are permanent and in place year-round. SCE's PSPS windspeed thresholds account for circuits or isolatable circuit segments that are fully hardened with covered conductor, thereby potentially limiting the duration and number of customers affected by PSPS during fire weather events. However, during severe fire weather conditions (dry and windy), there is a heightened risk of ignitions, primarily due to wind-driven foreign objects or airborne vegetation coming into contact with SCE's equipment. Under these circumstances, deployment of the less disruptive measures described above may not sufficiently mitigate wildfire and public safety risk, and PSPS is necessary as a mitigation measure of last resort to prevent ignitions that may lead to significant wildfires.

Leading up to and during a PSPS event, SCE utilizes real-time weather station data and, if available, information from field observers on the ground for enhanced situational awareness to forecast and monitor prevailing environmental conditions (e.g., wind gusts) that can lead to potential damage from airborne vegetation or flying debris, to inform de-energization decisions. For circuits that are in scope, SCE also conducts pre-patrols and visually inspects the entire length of each circuit or circuit segment to identify imminent hazards or equipment vulnerabilities that require immediate remediation and provide additional, up-to-date intelligence on field conditions. If concerns are discovered on a circuit in scope, they are addressed before the impending wind event, if possible.

SCE makes every effort to limit the scope, duration, and impact of PSPS for as many customers as possible. This includes adjusting wind speed thresholds higher for circuits or segments that have covered conductor installed and leveraging sectionalization equipment to switch some customers to adjacent circuits not impacted by PSPS or otherwise remove them from scope. Starting with initial weather (wind and relative humidity) and fuel moisture forecasts for the Period of Concern, SCE evaluates its current system configurations for downstream circuits, i.e., circuits receiving power from another circuit that is forecast to exceed de-energization thresholds. SCE seeks to identify circuit segments or subsets of customers that could safely be transferred from a circuit that is expected to exceed thresholds to another adjacent circuit that is not. See Section 10: Mitigation to Reduce Impact for additional details.

Based on weather forecast data, fire weather modeling information and results of the PSPS Risk vs. Benefit Comparison Tool, SCE determined that the above-described precautionary measures alone would not sufficiently reduce the risk to public safety, and PSPS was necessary for some of the circuits and customers in scope.

Section 3. De-Energized Time, Place, Duration and Customers

1. The summary of time, place, and duration of the event, broken down by phase if applicable.

This PSPS event began when SCE activated its Emergency Operations Center on January 2, 2025, at 12:30 p.m. and ended for all circuits in scope on January 17, 2025, at 4:00 p.m. by which time service was restored to all de-energized customers with the exception of those service account locations that were damaged by fires; these customers were transferred to standard outage protocols. This event encompassed impacted circuits in Kern, Los Angeles, Orange, Riverside, San Bernardino, Santa Barbara, San Diego, and Ventura counties. *See*, also Section 1-1 above for additional information.

2. A zipped geodatabase file that includes PSPS event polygons of de-energized areas. The file should include items that are required in Section 3.3.

A zipped geodatabase file that includes information in Section 3.3 is included with this filing.

3. A list of circuits de-energized, with the following information for each circuit. This information should be provided in both a PDF and excel spreadsheet.

The following table details the specified information for each circuit de-energized during this PSPS event and has also been included in the required PSPS Event Data Workbook filed with this report.

- County
- De-energization date/time
- Restoration date/time²³
- "All Clear" declaration date/time²⁴
- General Order (GO) 95, Rule 21.2-D Zone 1, Tier 2, or Tier 3 classification or non-High Fire Threat District
- Total customers de-energized²⁵
- Residential customers de-energized
- Commercial/Industrial customers de-energized
- Medical Baseline (MBL) customers de-energized
- AFN other than MBL customers de-energized²⁶
- Other Customers
- Distribution or transmission classification

²³ Table 5 reflects de-energization data at the circuit level (rather than segment level) and shows first de-energization date/time and final restoration date/time for each circuit. During this event, SCE deployed segmentation to limit de-energization to specific circuit segments in the areas of concern.

²⁴ SCE understands "All Clear" declaration date/time for each circuit in scope to refer to: (1) approval by the Incident Commander to begin patrols and restore power for any de-energized circuit or circuit segment, or (2) a final decision to remove a circuit or circuit segment from scope after the Period of Concern is over for that circuit or segment on the monitored circuit list that was not de-energized during the PSPS event.

²⁵ Whenever possible, SCE employs circuit-switching operations and/or sectionalization devices to minimize the number of customers in scope for proactive de-energization. As a result, some customers on a circuit in scope may briefly lose power while SCE switches them to an energized adjacent circuit or when SCE uses sectionalization devices to isolate portions of a circuit that can remain safely energized from de-energized segments of that same circuit or an adjacent circuit. The reported count of "total customers de-energized" does not include customers who experience a brief (30 minutes or less) power interruption during such switching and/or sectionalization operations, but who are not otherwise impacted by the proactive de-energization.

²⁶ SCE maintains extensive data on customer populations that are included in the AFN definition referenced in CPUC decisions, with a focus on identifying AFN customers particularly vulnerable during PSPS events. In addition to AFN customers who have self-certified as sensitive (not enrolled in the MBL program), SCE identifies and tracks for PSPS reporting purposes the following categories of "AFN other than MBL customers": senior citizens (65 and older), hearing-impaired, vision-impaired (communications provided in large font or Braille), income-qualified (enrolled in CARE or FERA), and non-English speakers. SCE also reports on impacted customers that provide shelter to the homeless population, as these entities are included among critical facilities and infrastructure.

Circuits De-Energized									
County	Circuit Name	De-energization Date	De-energization Time (2400)	All Clear Declaration Date	All Clear Declaration Time (2400)	Restoration Date ^[1]	Restoration Time (2400) ^[2]	GO 95, Tier HFTD Tier(s) 1,2,3	Distribution / Transmission Classification
RIVERSIDE	ACADIAN	1/8/2025	11:14	1/10/2025	3:27	1/10/2025	5:32	Tier 2, Non HFRA	Distribution
ORANGE	ACRES	1/9/2025	15:13	1/12/2025	9:51	1/12/2025	16:28	Tier 2, 3	Distribution
LOS ANGELES	ACROBAT	1/8/2025	14:04	1/10/2025	3:55	1/10/2025	9:06	Tier 2, 3, Non HFRA	Distribution
RIVERSIDE	AIDAN	1/8/2025	7:09	1/9/2025	1:07	1/9/2025	7:40	Tier 2, Non HFRA	Distribution
SAN BERNARDINO	ALLVIEW	1/8/2025	13:57	1/16/2025	7:24	1/16/2025	12:50	Tier 3	Distribution

Circuits De-Energized (cont.)								
County	Circuit Name	Residential Customers De-energized	Commercial / Industrial customers De-energized	Medical Baseline customers De-energized	AFN other than MBL customers De-energized		GO 95, Tier HFTD Tier(s) 1,2,3	Other Customers
RIVERSIDE	ACADIAN	287	10	19	118	297	Non HFRA, T2	
ORANGE	ACRES	1423	13	30	97	1436	T3, T2	
LOS ANGELES	ACROBAT	1592	61	28	950	1653	Non HFRA, T3, T2	
RIVERSIDE	AIDAN	379	12	13	79	391	Non HFRA, T2	
SAN BERNARDINO	ALLVIEW	302	1	6	62	303	Т3	

Section 4. Damage and Hazards to Overhead Facilities

1. Description of all found wind-related damages or hazards to the utility's overhead facilities in the areas where power is shut off.

Instances of wind-related damages and potential hazards to distribution circuit structures and associated line hardware were found during restoration patrols for this event, as detailed in Table 6.

2. A table showing circuit name and structure identifier (if applicable) for each damage or hazard, county that each damage or hazard is located in, whether the damage or hazard is in a High Fire Threat District (HFTD) or non-HFTD and the type of damage/hazard.²⁸

Damage and Hazards				
Circuit Name	County	Structure Identifier	Tier 2/3 or Non-HFTD	Type and Description of Damage
ARBORETUM	LOS ANGELES	4537095E	2	Damaged OH Secondary
BALCOM	VENTURA	983186E	Non-HFTD	Damaged OH Primary Connections
BALDWIN	LOS ANGELES	1513271E	2	Damaged OH Secondary
BALDWIN	LOS ANGELES	963550E	3	Damaged OH Secondary
BIG ROCK	LOS ANGELES, VENTURA	2107057E	3	Damaged OH Primary Connections
BOULDER	SAN BERNARDINO	4222162E	3	Damaged OH Primary Connections

Table 6: Damage and Hazards (Continued in Attachment C)

3. A zipped geodatabase file that includes the PSPS event damage and hazard points. The file should include fields that are in the table above.

A zipped geodatabase file that provides information in Section 3.3 is included with this filing

²⁷ The sum of (i) residential customers de-energized, (ii) commercial/industrial customers de-energized and (iii) other customers equals the total number of customers de-energized per circuit for this event. The count of "Residential Customers De-energized" includes sub-categories of "Medical Baseline customers De-energized" and "AFN other than MBL customers De-energized."

²⁸ Hazards are conditions discovered during pre-restoration patrols or operations that might have caused damage or posed an electrical arcing or ignition risk had PSPS not been executed.



4. A PDF map identifying the location of each damage or hazard.

Section 5. Notification

1. A description of the notice to public safety partners, local/tribal governments, paratransit agencies that may serve all the known transit or paratransit dependent persons that may need access to a community resource center, multi-family building account holders/building managers in the AFN community²⁹, and all customers, including the means by which utilities provide notice to customers of the locations/hours/services available for CRCs, and where to access electricity during the hours the CRC is closed.

SCE includes paratransit agencies that may be de-energized in its PSPS notifications and classifies these agencies overall as critical facilities and infrastructure to make sure they receive priority notifications. All multi-family building SCE account holders receive customer notifications. In its customer notifications, SCE directs potentially impacted customers to <u>www.sce.com/psps</u> for information related to the location, hours, and services available at Community Resource Centers. Instructions on where customers can access electricity during the hours the centers are closed have been made available on the SCE website. Please see the table below for a description of the types of notices provided during this de-energization event.

²⁹ SCE generally notifies multi-family building account holders, along with other customers of record in scope for a potential de-energization. SCE does not currently have a way to identify which multi-family building account holders have residents in their buildings who may be members of the AFN community. SCE conducts PSPS-related outreach via flyers and trade publications to increase awareness of PSPS among building/property managers who are not account holders. SCE also instituted an address-level alert program, which allows non-SCE account holders (such as building/property managers) to sign up for PSPS alerts for specific addresses.

	Notification Descript	ions
Type of Notification	Recipients	Description ³⁰
Advance Initial or Initial	Public Safety Partners and Critical Facilities & Infrastructure Customers (including local and Tribal governments, Community Choice Aggregators, hospitals, water/wastewater and telecommunications providers, CBOs and paratransit agencies serving the AFN community).	Initial notification of potential PSPS event when circuits are first identified for potential de- energization (72-48 hours before potential de-energization)
	Other Customers (including multi-family building account holders).	Initial notification of potential PSPS event (48-24 hours before potential de-energization).
Update	Public Safety Partners and Critical Facilities & Infrastructure Customers (including local and Tribal governments, Community Choice Aggregators, hospitals, water/wastewater and telecommunications providers, CBOs and paratransit agencies serving the AFN community).Other Customers (including multi-family building account holders).	PSPS event status update notification to alert for any changes or additions/deletions to current scope (timing varies and may also occur daily). Update notice to Public Safety Partners may also serve as cancellation notice if circuits are removed from scope.
Expected	Public Safety Partners and all Critical Facilities & Infrastructure Customers (including local and Tribal governments, Community Choice Aggregators, hospitals, water/wastewater and telecommunications providers,	Power shutoff expected soon (1-4 hours before potential de- energization).

³⁰ SCE makes every effort to adhere to the notification timelines required by the CPUC. However, notifications may be delayed in some circumstances Please see Table 9 for more information specific to this event.

	Notification Descripti	ons
Type of Notification	Recipients	Description ³⁰
	CBOs and paratransit agencies serving the AFN community).	
	Other Customers (including multi-family building account holders).	
Shutoff	Public Safety Partners and Critical Facilities & Infrastructure Customers (including local and Tribal governments, Community Choice Aggregators, hospitals, water/wastewater and telecommunications providers, CBOs and paratransit agencies serving the AFN community).	Power has been shut off (when de- energization is initiated).
	Other Customers (including multi-family building account holders).	
Prepare to Restore	Public Safety Partners and Critical Facilities & Infrastructure Customers (including local and Tribal governments, Community Choice Aggregators, hospitals, water/wastewater and telecommunications providers, CBOs and paratransit agencies serving the AFN community).	Inspection/patrols of de-energized circuits for PSPS restoration has begun and power will be restored shortly.
	Other Customers (including multi-family building account holders).	
Restored No Longer in Scope	Public Safety Partners and Critical Facilities & Infrastructure (including local and Tribal governments, Community Choice Aggregators, hospitals, water/wastewater	Power has been restored and no longer in scope for this event.

	Notification Descripti	ons
Type of Notification	Recipients	Description ³⁰
	and telecommunications providers, CBOs and paratransit agencies serving the AFN community).	
	Other Customers (including multi-family building account holders).	
Restored In Scope	Public Safety Partners and Critical Facilities & Infrastructure Customers (including local and Tribal governments, Community Choice Aggregators, hospitals, water/wastewater and telecommunications providers, CBOs and paratransit agencies serving the AFN community).	Power has been temporarily restored, PSPS risk still remains.
	Other Customers (including multi-family building account holders).	
Event Avoided Cancellation	Critical Facilities & Infrastructure (including Community Choice Aggregators, hospitals, water/wastewater, and telecommunications providers).	PSPS event cancelled-no de- energization expected.
	Other Customers (including multi-family building account holders).	

Information related to PG&E customers is included in Section 12.

2. Notification timeline including prior to de-energization, initiation, restoration, and cancellation, if applicable. The timeline should include the required minimum timeline and approximate time notifications were sent.

Throughout the PSPS event, SCE made significant effort to notify public safety partners, local/tribal governments, critical facilities and infrastructure and customers in accordance with the minimum

timelines set forth by the CPUC weather and other factors permitting. Table 07: Notification Timeline in Attachment C: PSPS Event Data Workbook describes the notifications SCE sent for this event, including approximate time notifications were sent to local/tribal governments, public safety partners, critical facilities and infrastructure and other customers prior to potential de-energization and after the decision to cancel the de-energization or remove from scope. The Notification Timeline for PG&E customers is included in Section 12.

3. For those customers where positive or affirmative notification was attempted, use the following table to report the accounting of the customers (which tariff and/or access and functional needs population designation), the number of notification attempts made, the timing of attempts, who made the notification attempt (utility or public safety partner) and the number of customers for whom positive notification was achieved. "Notification attempts made" and "Successful positive notification" must include the unique number of customer counts. When the actual notification attempts made is less than the number of customers that need positive notifications, the utilities must explain the reason. In addition, the utilities must explain the reason any unsuccessful positive notifications.

Positive Notification					
Category	Total Number of Customers	Timing of Attempts	Notification Attempts	Successful Positive Notification	Who made the notification
Medical Baseline	23,716	DAILY	24,503	23,338	SCE
Self Certified	4,077	DAILY	4,685	3,984	SCE

Table 8: Positive Notification³¹

SCE sent over 27,000 PSPS-related notifications to Medical Baseline (MBL), which includes Critical Care and Self Certified customers; missed notifications accounted for approximately 2% of these notifications. During this event, PSPS notifications were significantly complicated by the unprecedented weather and fires in Southern California; SCE attempted to mitigate customer confusion between weather-related repair outages and wildfire-related outages while working to comply with PSPS notifications.

Typically, SCE makes several attempts to contact its vulnerable customer population, and, when positive notification cannot be achieved, SCE sends a field service representative to the address on file. For this event, because of the rapidly changing weather caused by the windstorm throughout SCE's service area, SCE was unable to follow these protocols for a subset of its vulnerable population. Missed MBL and Self Certified notifications reported in Table 8 were due to SCE's decision to deenergize in anticipation of conditions breaching thresholds and lowering the FPI. As detailed in

³¹ The "Total Number of Customers" metric reflects the total number of MBL and Self-Certified customers in scope for the PSPS event. The "Notification Attempts" metric reflects the count of MBL and Self-Certified customers – both in scope and deenergized – whom SCE attempted to notify prior to de-energization. Notification attempts include automated notification, secondary verification by Consumer Affairs and escalated contact attempts, up to and including door rings, if necessary, to confirm successful delivery of notifications to Medical Baseline and Self-Certified customers.

The "Successful Positive Notification" metric reflects the number of unique MBL and Self-Certified customers – both in scope and de-energized – who were successfully notified of the PSPS event prior to de-energization or anticipated de-energization.

Section 11, because aerial fire suppression resources were grounded at times due to extreme conditions, heightening wildfire risks, SCE lowered the FPI threshold and adjusted its operational protocols to de-energize prior to winds hitting circuit thresholds. This resulted in immediate de-energization of some circuits for public safety which affected SCE's ability to send certain MBL notifications in advance of de-energization. These customers would have received notifications once in-event notification campaigns could be triggered. SCE also missed these notifications because circuits not forecasted to be in scope ahead of the Period of Concern, in-event forecasts evolving which caused circuits to come in and out of scope, or sudden onset of stronger-than-expected winds. Although SCE is actively expanding its machine learning modeling capabilities to enhance forecast accuracy, SCE could not precisely predict the impacts this windstorm would have on various parts of its system.

4. A copy or scripts of all notifications with a list of all languages that each type of notification was provided in, the timing of notifications, the methods of notifications and who made the notifications (utility or public safety partners).

Scripts of all notifications that SCE sends are attached hereto in Attachment A: Public Safety Partner/Customer Notification Scripts. SCE performs primary customer notifications and encourages public safety partners to amplify PSPS messages on their platforms, as appropriate. SCE offers all notifications in the following languages: English, Spanish, Cantonese, Mandarin, Vietnamese, Tagalog, and Korean, Khmer, Armenian, Farsi, Arabic, Japanese, Russian, Punjabi, Thai, Hmong, Portuguese, Hindi, French, German, Mixteco (indigenous - spoken only), Zapoteco (indigenous spoken only), and Purapecha (indigenous - spoken only).

5. If the utility fails to provide notifications according to the minimum timelines set forth in D.19-05-042 and D.21-06-034, use the following table to report a breakdown of the notification failure and an explanation of what caused the failure.

Throughout the PSPS event, SCE made significant efforts to notify public safety partners, local/tribal governments, critical facilities and infrastructure and customers in accordance with the minimum timelines set forth by the CPUC in PSPS Phase 1 Guidelines (D.19-05-042), weather and other factors permitting. Any missed notifications during the event are included in the following table and discussed in the paragraphs following the table.

Breakdown of N	otification Failures		
Notifications sent to	Notification Failure Description	Number of Entities or Customer Counts	Explanation
Public Safety Partners excluding	Entities who did not receive 48–72-hour advance notification.	24	missing authorized campaign/message sent error - 14

Table 9: Breakdown of Notification Failure

Breakdown of N	otification Failures		
Notifications sent to	Notification Failure Description	Number of Entities or Customer Counts	Explanation
Critical Facilities and Infrastructure			campaign authorized less than 48 hours, successfully sent - 10
linrastructure	Entities who did not receive 1–4-hour imminent notification. ³²	16	missing authorized campaign - 16
	Entities who did not receive any notifications before de-energization.	14	missing authorized campaign/message sent error - 14
	Entities who were not notified immediately before re-energization.	14	missing authorized campaign/message sent error - 14
	Entities who did not receive cancellation notification within two hours of the decision to cancel.	0	
	Facilities who did not receive 48–72-hour advance notification.	2,284	missing authorized campaign – 1,322 campaign authorized less than 48, successfully sent - 956 no contact information / message send error - 6
Critical Facilities and Infrastructure	Facilities who did not receive 1-4 hour of imminent notifications. ³³	721	no contact information / message send error - 11 missing authorized campaign - 676 campaign authorized less than 1 hour, successfully sent - 34
	Facilities who did not receive any notifications before de-energization.	465	no contact information / message send error - 10

³² Missed imminent (or 1-4 hour) notification is defined as failure to send the notification to an affected customer "1-4 hours in advance of anticipated time of de-energization, if possible." D.19-05-042, Appendix A, p. A8 and n.5. SCE anticipates that deenergization will occur about four hours from when the Incident Commander determines, based on real-time weather data, that de-energization is likely, and the PSPS operations team authorizes the notification campaign. SCE reports as missed imminent notifications that are (i) not sent at all, (ii) sent prior to the authorization, or (iii) sent less than 1 hour before SCE's anticipated time of de-energization, as defined above.

Breakdown of N	otification Failures		
Notifications sent to	Notification Failure Description	Number of Entities or Customer Counts	Explanation
			missing authorized campaign - 455
	Facilities who were not notified at de- energization initiation.	102	missing authorized campaign - 74 no contact information / message send error - 28
		564	no contact information / message send error - 10
	Facilities who were not notified immediately before re- energization.		missing authorized campaign - 478 campaign authorized after re- energization - 76
	Facilities who were not notified when re- energization is complete.	642	missing authorized campaign - 636 no contact information / message send error - 6
	Facilities who did not receive cancellation notification within two hours of the decision to cancel.	338	received de-en notifications, was not de-en, missing authorized campaign - 81 missing authorized campaign - 253 no contact information / message send error - 4
All other affected customers	Customers who did not receive 24–48-hour advance notifications.	114,229	missing authorized campaign - 87,399 campaign authorized less than 24 hours, successfully sent - 23,407 no contact information / message send error - 3,423
customers	Customers who did not receive 1–4-hour imminent notifications. ³⁴	55,396	campaign authorized less than 1 hour, successfully sent - 2,753 missing authorized campaign - 51,092

³⁴ Please refer back to footnote 32.

Notifications sent to	Notification Failure Description	Number of Entities or Customer Counts	Explanation
			no contact information / message send error - 1,551
	Customers who did not receive any notifications before de-energization.	32,680	no contact information / message send error - 1,913 missing authorized campaign - 30,767
	Customers who were not notified at de- energization initiation.	9,338	missing authorized campaign - 5,597 no contact information / message send error - 3,741
	Customers who were not notified immediately before re-energization.	35,354	missing authorized campaign - 26,80 campaign authorized after re- energization - 5,731 no contact information / message send error - 2,818
	Customers who were not notified when re- energization is complete.	34,811	missing authorized campaign - 33,71 no contact information / message send error - 1,096
	Customers who did not receive cancellation notification within two hours of the decision to cancel.	20,219	missing authorized campaign - 15,73 received de-en notifications, was no de-en, missing authorized campaign 3,239 no contact information / message send error - 1,244

Between January 2 and January 17, 2025, SCE sent 7.7 million notifications to customers. When considering the fact that many customers select multiple contact methods, this resulted in over 20 million PSPS-related notifications. During this event, PSPS notifications were significantly complicated by the unprecedented weather and numerous wildfires in Southern California; SCE attempted to mitigate customer confusion between weather-related repair outages and wildfire-related outages while working to comply with PSPS notifications. In addition to sending required PSPS notifications, SCE developed and sent out custom ad hoc notifications to customers that were affected by windstorm and wildfire outages. Because of the scale and nature of the events, SCE also sent daily emails to customers across the service area to provide an update on windstorms, wildfires and PSPS.

Approximately 58% of missed notifications were due to the widespread and complex windstorm throughout SCE's service area, which largely affected advance and imminent notifications (i.e., notifications not sent or sent outside the defined time periods). More specifically, due to unforeseen factors outside of SCE's control that significantly increased public safety risk, such as aerial fire suppression resources being grounded at times due to extreme conditions and multiple fire starts, SCE lowered its FPI threshold and modified its de-energization protocols to further mitigate the chances of a catastrophic fire. As a result, customers who were on circuits not yet at de-energization thresholds were de-energized without receiving all of their notices, such as the 1–4-hour imminent notification. For more details on the lowered FPI and modified protocols, please refer to Section 11.

In addition, some advance and imminent notifications were also missed because circuits were not forecast to be in scope ahead of the Period of Concern and were promptly de-energized due to sudden onset of stronger-than-expected winds. SCE is actively expanding its machine learning modeling capabilities to enhance forecast accuracy. Despite these advancements, weather forecasting remains inherently uncertain, particularly at a granular level.

To be sensitive to customers who lost their homes or could not otherwise return to their homes, SCE did not send notifications to customers whose homes were designated by CalFire as destroyed, customers whose homes were designated damaged but not destroyed and unsafe to receive electrical service, and customers who were served by circuit segments that were destroyed and no longer actively serving any customers. Since these customers were no longer receiving electrical service, SCE ceased PSPS notifications to this set of customers. This accounted for approximately 5% of the missed notifications listed in Table 9.

System and process issues affected approximately 28% of missed notifications reported in Table 9. SCE has identified, and is continuing to identify, the causes of these data and process issues and is implementing corrective measures as they are identified. One issue impacting notifications was a loss of communication with grid SCADA system and tools, which affected the ability to observe the system status and use remote automation to de-energize circuit segments in and around Ventura County and parts of northern and eastern Los Angeles County between the evening of January 7 and morning of January 8. Given the uncertainties around the scope and impact of the compromised grid communications at the time, and out of an abundance of caution (for circuits that were expected to approach or meet criteria), the incident commander authorized the de-energization of some circuits directly from substations to mitigate risk. As a result, this delayed notifications to customers served on these circuits., SCE also delayed sending cancellation notices to some customers within two hours of circuits being removed from scope due to the magnitude and complexity of notifications for customers on de-energized circuit segments. In situations where only certain segments are de-

energized, identifying the specific segment to send cancellation notices to can be challenging due to SCE's internal validation process.

During this event, approximately 6% of missed notifications were due to missing contact information or customers moving in or out over the course of the event. SCE continues to investigate alternative methods to obtain this information, including call center scripts, direct mailers, and other sources.

Unfortunately, circuits within wildfire-impacted areas were not able to be restored within 24 hours due to severe damage caused by wildfire and dangerous weather conditions. Customers affected by the circuits that could not be restored within 24 hours were notified of the situation and the damage. Restoration efforts and notifications for these customers were transferred to special outage notification processes. These customers did not receive Restored No Longer in Scope or Cancellation notifications and account for approximately 3% of the missed notifications listed in Table 9.

We remain committed to conducting a thorough analysis, addressing identified issues, and enhancing our notification processes. Additional information related to PG&E customers is included in Section 12.

6. Explain how the utility will correct the notification failures.

Please see the explanations above in Section 5 for a description of how SCE will correct the notification failures.

7. Enumerate and explain the cause of any false communications citing the sources of changing data.

Missed/Insufficient Notification:

Please see Table 9 and sub-section 5 above for information on missed or insufficient notifications during this event.

Incorrect Notification:

Please see Table 9 and sub-section 5 above for information on incorrect notifications during this event.

Cancellation Notification:

• SCE sent cancellation notices to 382,720 customers that were notified of potential deenergization but ultimately were not de-energized during this event. SCE notifies customers on circuits in scope for potential de-energization ahead of the Period of Concern based on its assessment of the likelihood that winds will exceed PSPS thresholds. De-energization was not necessary for these customers because forecast fire weather conditions did not materialize in those areas, and the customers were notified of the cancellation after being removed from scope.

Section 6. Local and State Public Safety Partner Engagement

1. List the organization names of public safety partners including, but not limited to, local governments, tribal representatives, first responders, emergency management, and critical facilities and infrastructure the utility contacted prior to de-energization, the date and time on which they were contacted, and whether the areas affectedby the de-energization are classified as Zone 1, Tier 2, or Tier 3 as per the definition in CPUC General Order 95, Rule 21.2-D.

Please see Table 10: Public Safety Partners Contacted in Attachment C: PSPS Event Data Workbook for a list of local public safety partners that received notifications related to this event.

2. List the names of all entities invited to the utility's Emergency Operations Center for a PSPS event, the method used to make this invitation, and whether a different form of communication was preferred by any entity invited to the utility's emergency operation center.

SCE extends a daily invitation for agency representatives to its Emergency Operations Center (currently virtual only) during agency coordination calls with public safety partners and critical infrastructure providers, as applicable during PSPS events. SCE also shares daily situational reports from these calls with all impacted public safety partners and critical infrastructure providers that includes contact information for requesting/receiving an agency representative to the Emergency Operations Center. No entities invited to the virtual Emergency Operations Center preferred a different form of communication during this event. Please see Table 11: Entities Invited to the Emergency Operations Center in Attachment C: PSPS Event Data Workbook for a list of agencies invited to the daily coordination calls.

3. A statement verifying the availability to public safety partners of accurate and timely geospatial information, and real time updates to the GIS shapefiles in preparation for an imminent PSPS event and during a PSPS event.

After the EOC was activated, SCE provided geospatial information and near real-time updates to the SCE Representational State Transfer Service (REST) to public safety partners before and during the PSPS event. SCE also made this information available to customers at <u>www.sce.com/psps</u> and provided this information to public safety partners on its Public Safety Partner Portal (Portal).

4. A description and evaluation of engagement with local and state public safety partners in providing advanced outreach and notification during the PSPS event.

SCE submitted the CalOES Notification form via the State Dashboard beginning on January 02, 2025, at 12:20 p.m. SCE conducted daily operational briefings with State and local public safety partners, as well as critical infrastructure entities, for the duration of this PSPS event to provide critical incident updates and a forum for resolving issues. See Table 10: Public Safety Partners Contacted in Attachment C: PSPS Event Data Workbook details a list of local public safety partners that received notifications related to this event.

Impacted state and county emergency management agencies and critical infrastructure customers are polled at the close of each event to provide feedback. Eight partners responded to this survey. Of the eight respondents, four rated the engagement as fair and the remaining four rated the engagement as good.

5. Specific engagement with local communities regarding the notification and support provided to the AFN community.

SCE provided notification of this PSPS event to the 211 California Networks, Regional Centers, Independent Living Centers, and American Red Cross chapters that serve their respective counties. SCE contacted community-based organizations (CBOs) to alert them of potential PSPS outages in the areas that they serve. SCE also provided 24-hour contact information to these agencies if they needed to escalate any unidentified community issues. In partnership with the CBOs in each area of concern, SCE offered services to customers such as transportation, food support and temporary accommodations.

- 6. Provide the following information on backup power (including mobile backup power) with the name and email address of a utility contact for customers for each of the following topics:
 - a) Description of the backup generators available for critical facility and infrastructure customers before and during the PSPS.

SCE maintains 10 mobile generators to support critical public health and safety needs during PSPS events. Additionally, SCE has contracts with vendors to lease more units when necessary to meet additional needs where appropriate.

b) The capacity and estimated maximum duration of operation of the backup generators available for critical facility and infrastructure customers before and during the PSPS.

The generators SCE maintains for PSPS events are rated at 25-100 KW and have an estimated maximum duration of operation of 24-36 hours with a continuous fuel plan to ensure there is no interruption of power while the generators are deployed for usage.

c) The total number of backup generators provided to critical facility and infrastructure customer's site immediately beforeand during the PSPS.

Six generators were deployed to support Resiliency Zones (RZs) and resilient Community Resource Centers (CRCs). One generator was deployed to support a residential customer for medical necessity. One generator was deployed to power a communications tower on Catalina Island, so that SCE crews on Catalina were able to communicate with each other and maintain safe operations.

d) How the utility deployed this backup generation to the critical facility and infrastructure customer's site.

SCE coordinated with generator rental vendors (United Rentals and Sunbelt) to deliver the generators to the facilities. SCE qualified electrical workers (QEWs) hooked up the

generators to manual bypass switches on RZs and CRCs. For the residential customer, the QEWs connected the generator to the residence's electric panel as there was no bypass switch to connect to. For the comm tower generator deployed, SCE coordinated with the Avalon barge service to deliver the generator to the island. The generator was then staged at the Pebbly Beach Generating Station for deployment to the comm tower once the circuit feeding the comm tower was deenergized.

e) An explanation of how the utility prioritized how to distribute available backup generation.

SCE coordinates closely with its 211 partners and county emergency management agency officials to address backup power requests for critical public health and safety emergencies. All such known requests for this event were addressed through appropriate measures. SCE is not aware of any unmet generator needs for public health and safety.

f) Identify the critical facility and infrastructure customers that received backup generation.

- Resilient CRCs
 - o Acton Community, 3748 Nickels Ave, Acton, CA 93510
 - James A Venable Community Center, 50390 Carmen Ave, Cabazon, CA 92230
- RZs
 - Agua Dulce Hardware/Sweetwater Bar and Grill/Bullwinkel's Gifts & Antiques, 33310-33314 Agua Dulce Canyon Road, Santa Clarita, CA 91390-4622
 - Well Water for Hardware/Bar & Grill/Gifts & Antiques, 33246 Agua Dulce Road, Santa Clarita, CA 91390-4622
 - Peppertree Market & Gas Station, 9661 Sierra Hwy, Santa Clarita, CA 91390
 - o Cabazon Fuel Center, 300 N Fern Street, Cabazon, CA 92230-3231
- Residential Customer for Medical Necessity
 - San Bernardino Ave., Mentone, CA 92359
- Comm Tower
 - 1 Pebbly Beach Rd., Avalon, CA 90704 (Staged at SCE property, the comm tower itself does not have an address)

Any questions related to the information under this item may be directed to SCE at the following email address: <u>SCECEDCustomerSupport@sce.com</u>³⁵

³⁵ Although there is no designated contact person for questions, this e-mail inbox is monitored by SCE's Customer Engagement Division.

Section 7. Complaints and Claims

1. The number and nature of complaints received as the result of the de-energization event and claims that are filed against the utility because of de-energization. The utility must completely report all the informal and formal complaints, meaning any expression of grief, pain, or dissatisfaction, from various sources, filed either with CPUC or received by the utility as a result of the PSPS event.

There were 7,168 reported complaints, and 736 claims associated with this PSPS event. SCE will include any complaints or claims related to this PSPS event received after the filing date of this report in its annual post-season report.

Table 12: Count and Nature of Complaints Received

Count and Nature of Complaints Received	
Nature of Complaints	Number of Complaints
PSPS Frequency/Duration Including, but not limited to complaints regarding the frequency and/or duration of PSPS events, Including delays in restoring power, scope of PSPS and dynamic of weather conditions.	2751
Safety/Health Concern Including, but not limited to complaints regarding difficulties experienced by AFN/MBL populations, traffic accidents due to non-operating traffic lights, inability to get medical help, well water or access to clean water, inability to keep property cool/warm during outage raising health concern	826
Communications/Notifications Including, but not limited to complaints regarding lack of notice, excessive notices, confusing notice, false alarm notice, problems with getting up-to-date information, inaccurate information provided, not being able to get information in the prevalent languages and/or information accessibility, complaints about website, Public Safety Partner Portal, REST/DAM sites (as applicable)	559
Outreach/Assistance Including, but not limited to complaints regarding community resource centers, community crew vehicles, backup power, hotel vouchers, other assistance provided by utility to mitigate impact of PSPS	154
General PSPS Dissatisfaction/Other Including, but not limited to complaints about being without power during PSPS event and related hardships such as food loss, income loss, inability to work/attend school, plus any PSPS-related complaints that do not fall into any other category.	2878
Total	l 7168

Table 13: Count and Type of Claims Received

Count and Type of Claims Received		
Description of Claims		Number of Claims
Food loss only		678
Property Damage		11
ood loss and property damage		7
Evacuation Cost		1
Business Interruption / Economic Loss		2
Unspecified		37
	Total	736

Section 8. Power Restoration Timeline

1. A detailed explanation of the steps the utility took to restore power, including the timeline for power restoration, broken down by phase if applicable.

SCE began the re-energization process after fire weather conditions subsided, there was no further threat of fire weather forecasted for the areas of concern and the Incident Commander approved restoration operations. All circuit restoration efforts were guided by safety considerations, including safety risks associated with patrolling certain circuits at night. Multiple active wildfires burning in and around the areas of concern further influenced and complicated restoration efforts, requiring heightened caution and discretion to assure the safety of responding field personnel and the public. For instance, SCE requested the patrol of secondary voltage conductors and services in some areas impacted by wildfires to support the safety of first responders. In many cases, SCE field personnel were restricted from entering certain fire-impacted areas, which hampered restoration in those areas. Additionally, some circuits that required aircraft patrols experienced a delay in restoration due to subsequent increases in wind (preventing the safe flight of helicopters), the need for daylight and Federal Aviation Administration (FAA) temporary flight restrictions in and around the burn scars (to facilitate safe aerial fire suppression), delaying the use of SCE aircraft. As a result, many circuits experienced delays in restoration, extending customer outages due to wildfire and weather-related hazards and access restrictions.

Please see Table 5 for details related to customer re-energizations, including restoration date, restoration time, and total customer count by circuit.

Re-energization on these circuits occurred after the authorization to patrol and restore was declared by the Incident Commander. The Incident Commander made the decision to restore these customers based on a recommendation from Operations and input from Weather Services due to the observed improvement in weather conditions.

2. For any circuits that require more than 24 hours to restore, the utility shall use the following table to explain why it was unable to restore each circuit within this timeframe.

Circuits Requiring more than 24 hours to restore	
Circuit Name	Reason the utility was unable to restore the circuit within 24 hours
AVANTI	Continued high winds caused delay in re-energization
BADGER	Continued high winds caused delay in re-energization
BALCOM	Continued high winds caused delay in re-energization
BALDWIN	Re-energization delayed due to the Eaton Fire
BARRINGTON	Re-energization delayed due to Outage Management System communications issue and technology outage

Section 9. Community Resource Centers

1. Using the following table, report information including the address of each location during a de-energization event, the location (in a building, a trailer, etc.), the assistance available at each location, the days, and hours that it was open, and attendance (i.e., number of visitors).

Community Resou	rce Cent	ers		
Address	Location Type	Describe the assistance available	Hours of Operations ¹ (Date / Time)	Number of Visitors
Residence Inn - Goleta 6350 Hollister Ave. Goleta, CA 93117	CRC- Indoor	Small portable device charging (such as a cell phone, laptop, and small medical devices), chairs, seasonal cooling, and heating, PSPS information, snacks, water, ice or ice vouchers, ADA compliant restrooms and customer Resiliency Kits.	01/04/2025 1PM to 10 PM	0
Residence Inn - Stevenson Ranch 25320 The Old Rd. Stevenson Ranch, CA 91381	CRC- Indoor	Small portable device charging (such as a cell phone, laptop, and small medical devices), chairs, seasonal cooling, and heating, PSPS information, snacks, water, ice or ice vouchers, ADA compliant restrooms and customer Resiliency Kits.	01/05/2025 8AM to 4PM	0
Jessie Turner Health & Fitness Community Center 15556 Summit Ave. Fontana, CA 92336	CRC- Indoor	Small portable device charging (such as a cell phone, laptop, and small medical devices), chairs, seasonal cooling, and heating, PSPS information, snacks, water, ice or ice vouchers, ADA compliant restrooms and customer Resiliency Kits.	01/05/2025 8AM to 4PM	4
Robert Hootman Senior Community Center 2929 Running Springs School Rd. Running Springs, CA 92391	CRC- Indoor	Small portable device charging (such as a cell phone, laptop, and small medical devices), chairs, seasonal cooling, and heating, PSPS information, snacks, water, ice or ice vouchers, ADA compliant restrooms, blankets, firewood, and customer Resiliency Kits.	01/05/2025 8AM to 4PM	13
Courtyard by Marriott 191 Cochran St. Simi Valley, CA 93065	CRC- Indoor	Small portable device charging (such as a cell phone, laptop, and small medical devices), chairs, seasonal cooling, and heating, PSPS information, snacks, water, ice or ice vouchers, ADA compliant restrooms and customer Resiliency Kits.	01/05/2025 8AM to 4PM	1

Table 15: Community Resource Centers (Continued in Attachment C)

2. Any deviations and explanations from the CRC requirement including operation hours, ADA accessibility, and equipment.

For this event, SCE deployed personnel to provide community assistance at 31 locations across Kern, Los Angeles, Orange, Riverside, San Bernardino, Santa Barbara, and Ventura counties. The event included an extended Period of Concern (POC) that started on January 3, 2025 and ended on January 17, 2025. Five locations supported customers under consideration for PSPS during January 3, 2025 to January 5, 2025. These CRC sites were closed by 4:00 p.m. on January 05, 2025 after circuits were dropped from the event scope and power was restored. SCE supported 26 locations from January 7, 2025 to January 17, 2025. During PSPS, SCE may adjust CRC hours (8:00 a.m. to 10:00 p.m.) to align with the POC, meet community needs or end support when it is no longer needed after circuits are reenergized. SCE aimed to open CRC sites two hours before the relevant period began and kept them open until power was restored.

To support Kern County customers during the event, SCE opened a CRC in Tehachapi on January 7, 2025. The CRC closed on January 9, 2025 at 1:30 p.m. because the circuits under PSPS consideration had been removed from scope and there were no de-energized customers. The CRC reopened on January 10, 2025 due to onset weather conditions and remained open until 10:00 p.m. on January 15, 2025 after customer support was no longer needed.

To support Los Angeles County customers during the event, SCE opened nine CRCs from January 7, 2025 to January 16, 2025. The Calabasas Community Center closed on January 8, 2025 at 10:00 a.m. due to de-energization of the circuit powering the site, and staff relocated to the Calabasas Civic Center, which opened at 11:30 a.m. The Civic Center closed on January 9, 2025 at 3:30 p.m. due to an evacuation order for the Palisades Fire, reopened on January 12, 2025 at 8:00 a.m., and closed on January 16, 2025 at 10:00 p.m. after customer support was no longer needed. SCE provided customer support at its Catalina Service Center from January 7, 2025 to January 9, 2025, closing on January 9, 2025 at 6:15 p.m. The site reopened on January 13, 2025 at 1:00 p.m. due to onset weather conditions and closed again on January 15, 2025 at 6:15 p.m. after power was restored. On January 9, 2025, SCE closed the College of the Canyons CRC in Santa Clarita at 4:00 p.m. The Hampton Inn CRC in Santa Clarita opened on January 7, 2025 at 8:00 a.m. and continued serving customers until January 16, 2025 at 6:30 p.m. after power was restored. Staff and supplies from the College of the Canyons location were relocated to the Acton Community Center, which also closed on January 16, 2025 at 6:30 p.m. after power was restored. Although SCE deployed a CCV to Mayor's Discovery Park in La Cañada on January 7, 2025 at 8:00 a.m., it closed at 10:00 p.m. due to the Eaton Fire. Staff and supplies were moved to the Second Baptist Church of Monrovia, which opened on January 8, 2025 at 11:00 a.m. and remained open until 10:00 p.m. on January 16, 2025 after power was restored. The CRC at Chatsworth Lake Church opened on January 13, 2025 at 5:00 p.m. to support customers on newly added circuits and remained open until 6:30 p.m. on January 16, 2025 after power was restored.

To support Orange County customers during the event, SCE opened a CRC in Foothill Ranch on January 7, 2025 at 8:00 a.m. It closed at 5:00 p.m. on January 16, 2025 after power was restored.

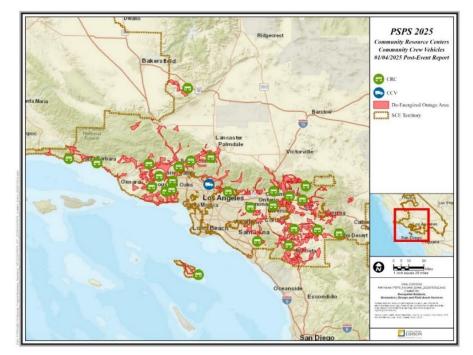
To support Riverside County customers during the event, SCE opened four CRCs on January 7, 2025 at 8:00 a.m., and an additional CRC in Perris on January 14, 2025 at 8:00 a.m. The CRC at Veterans for Foreign Wars in Jurupa Valley closed on January 15, 2025 at 2:00 p.m. due to a safety incident (unruly

customer). On January 16, 2025, four CRCs closed between 4:00 p.m. and 8:30 p.m. after power was restored.

To support San Bernardino County customers during the event, SCE opened four CRCs on January 7, 2025 at 8:00 a.m., and an additional CRC in Chino Hills on January 13, 2025. The Rudy C. Hernandez Community Center CRC closed on January 09, 2025 at 4:00 p.m., with staff and supplies re-allocated to Jurupa Valley and Mentone CRC locations. On January 16, 2025, CRCs in Fontana and Mentone closed at 6:30 p.m., and in Running Springs at 9:00 p.m. after power was restored.

To support customers in Santa Barbara County during the event, SCE opened two CRC locations in Goleta and Carpinteria. The Goleta CRC was operational from 6:00 p.m. on January 7, 2025 to 6:00 p.m. on January 09, 2025, closing when the circuits driving its selection were removed from the event scope. It reopened on January 11, 2025 at 8:00 a.m. after circuits were re-added during the January 10, 2025 evening weather run and closed again on January 15, 2025 at 4:00 p.m. once the circuits were removed from scope and power was restored. The Carpinteria CRC opened on January 13, 2025 after two circuits were added to the event scope and remained open until 3:00 p.m. on January 16, 2025, closing after power was restored.

To support customers in Ventura County during the event, SCE opened three CRCs. These CRCs became operational on January 7, 2025 at 8:00 a.m. and remained open until January 16, 2025. On January 8, 2025, the Simi Valley and Fillmore CRCs closed at 5:00 p.m. and 6:30 p.m., respectively, due to de-energized circuits powering each location and insufficient lighting to safely serve customers. Both locations reopened on January 9, 2025 at 8:00 a.m. and continued operations until January 16, 2025 at 6:30 p.m. The closures occurred after the circuits driving the site selections were removed from the event scope and power was restored. The Thousand Oaks Inn CRC closed at 8:30 p.m. on January 16, 2025 after all customer load in Ventura County was restored.



3. A map identifying the location of each CRC and the de-energized areas.

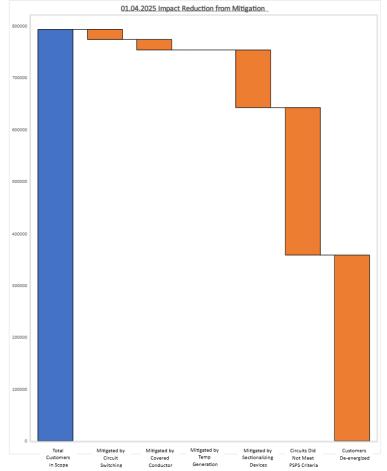
Section 10. Mitigation to Reduce Impact

1. Mitigation actions and impacts including: sectionalization devices, temporary generation, microgrids, permanent backup generation, transmission switching, covered conductor, and any other grid hardening that mitigated the impact of the event.

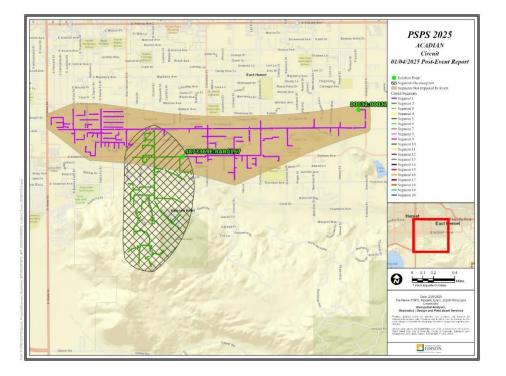
Prior to the Period of Concern, SCE used circuit playbooks to identify circuit switching that could reduce the number of customers in scope for potential de-energization. SCE transferred over 19,000 customers from circuits on the monitored circuit list to adjacent circuits not in scope pursuant to the then-current forecast, thereby maintaining service to these customers throughout the event.

In addition, the replacement of bare wire with covered conductor allowed SCE to raise deenergization windspeed thresholds and thus reduced potential de-energization or delayed deenergization impacts to over 20,000 customers.

The waterfall graphs and maps below illustrate the impacts of SCE's mitigation measures over the course of the PSPS event where circuit switching, covered conductor and/or sectionalization devices were successfully deployed to limit the scope of potential or actual de-energization.³⁶



³⁶ "Circuits Did Not Meet PSPS Criteria" in the waterfall graph denotes customers on circuits in scope that were not ultimately de-energized. These customers were not switched to adjacent circuits, were not on circuits with covered conductor, and did not require the use of sectionalization devices.



Continued in Attachment D (PDF)

Section 11. Lessons Learned

SCE remains committed to continuously improving its PSPS program and has stood up a team to evaluate and recommend changes before the 2025 fire season begins. To inform our efforts, we have already begun seeking input from community members, public safety partners and local government officials.

1. Threshold analysis and the results of the utility's examination of whether its thresholds are adequate and correctly applied in the de-energized areas.

One of the main areas of focus for the aforementioned team looking at changes to SCE's PSPS protocols is whether SCE's thresholds need further adjustment. Initial analysis and evidence indicate that SCE's thresholds and subsequent actions to lower FPI and modify de-energization protocols were appropriate. This PSPS event was the largest since SCE began using PSPS. It was extremely large in scope, characterized by forecasts indicating particularly dangerous fire weather conditions across much of SCE's service area. These conditions were driven by a low-pressure system that brought strong offshore winds across portions of SCE's service area. The observed wind speeds reached the

upper range of the forecast, with gusts exceeding predictions in some areas. During the period of concern, Red Flag Warnings were issued for portions of Los Angeles, Orange, Riverside, San Bernardino, Santa Barbara, and Ventura counties, while Wind Advisories were in effect for parts of Kern County. The National Weather Service's Los Angeles office also took the extreme step of issuing a "Particularly Dangerous Situation"—a modifier to the Red Flag Warning, for portions of Los Angeles and Ventura Counties leading up to this Santa Ana wind event, highlighting the heightened and serious fire risks. The observed peak wind speeds reached 60 mph sustained and 80 mph in gusts, with isolated areas experiencing wind gusts up to 100 mph. These observations aligned with SCE's forecast of elevated winds and heightened fire weather risks. Fire modeling projected potential fire sizes ranging from 1,000 to 40,000 acres.

During this event, three large, active wildfires were burning across southern California, and smaller fires also ignited in the region over this period. The dire situation resulted in the Geographic Area Coordination Center (GACC) raising the preparedness level to 4, indicating a significant drawdown of fire suppression resources. This level of preparedness suggested that available resources were stretched thin, which would have significant negative impacts on fire response capabilities. In addition, there were times when aerial fire suppression resources, which are critical in the initial attack stage for firefighting, were grounded due to extreme wind conditions. Due to these heightened risk factors, SCE lowered the FPI threshold to 11 at times during this event. This decision was considered prudent given the very dry fuels, high winds, low humidity and significantly compromised fire response should another wildfire ignite.

Given the event's size, complexity, circuit prioritization, emergent grid conditions, when multiple circuits approached de-energization criteria simultaneously, SCE modified its protocols to de-energized some circuits before windspeed criteria were fully met. While this practice resulted in customers not receiving all required notices prior to de-energization and/or extended de-energizations for some customers, particularly as fire weather conditions ebbed and flowed, it was necessary to mitigate the extreme fire risk in a timely manner. SCE considers adjustments like these for large and operationally complex PSPS events, and they were necessary for circuits in this case, due to the extremely large event scope and observed wildfire risks. This practice is aimed at prioritizing circuits based on specific risk factors, including wind speeds, gusts, fuel moisture levels and susceptibility to wind-related damage. By doing so, SCE made sure that the most vulnerable areas were addressed, effectively mitigating wildfire risks and enhancing the overall response.

Post-event restoration patrols further validated the appropriateness of these decisions. These patrols identified over 70 instances of wind-related damage within the de-energized areas, providing evidence that underscores the effectiveness of SCE's protocols in mitigating potential wildfire impacts during this event. Specifically, SCE found evidence of damage on at least nine circuits that would not have been de-energized if SCE did not de-energize ahead of the circuit reaching thresholds, which means that SCE taking these actions avoided the significant risk of a catastrophic wildfire in these instances. Further, this evidence does not capture likely instances of airborne objects that could have struck an energized circuit and caused a wildfire.

SCE also incorporates these data points into SCE's machine learning models which are used to predict the probability of failure for SCE assets. This model, along with fire consequence modeling, is the basis for SCE's Wildfire Mitigation Plan.

SCE's PSPS de-energization thresholds are determined with the fundamental consideration that a fire in high wind and dry fuel conditions is not an acceptable risk for SCE, our customers, or our communities. SCE notes that failing to find damage during a restoration patrol does not mean that the de-energization did not prevent a fire or that the thresholds were too low; wind-blown debris may result in faults that could be the source of an ignition if the lines remained energized, but may not be observable during a restoration patrol if the debris subsequently blew out of the line or environmental conditions had otherwise changed.

Therefore, SCE believes its de-energization thresholds and subsequent in-event adjustments were appropriate for this event and functioned as intended. Additional details about SCE's thresholds can be found in Attachment B - Quantitative and Qualitative Factors in PSPS Decision-Making Technical Paper.

2. Any lessons learned that will lead to future improvement for the utility.

	Lessons Learned	
Issue	Discussion	Resolution
Because of the size and magnitude of this event, elected officials wanted to be kept informed so they could help address constituent questions and concerns.	Given the magnitude of this event, elected officials wanted consistent updates. SCE's established daily briefing calls are not designed for this audience or their concerns.	To keep elected officials apprised of PSPS activities for this event, beginning on January 12, SCE established regular briefings for SCE leaders to provide updates to elected officials and their staff. SCE does not believe that daily briefing meetings with elected officials is necessary for all PSPS events but may be appropriate for large scale PSPS events. As such, SCE will establish protocols for future extreme PSPS events.
Some customers were affected by PSPS outages, as well as windstorm or wildfire-related outages.	SCE uses templated PSPS notifications. Additional communications became necessary for customers who were impacted by windstorm or wildfire outages, including total loss or significant damage to their residence.	So that customers were provided with appropriate outage updates, SCE sent out custom ad hoc communications to a subset of customers. For future events with concurrent extreme events (e.g., wildfire and windstorm), SCE will develop supplemental communications to keep customers informed.
Simultaneous de- energization and re- energization authorization and managing multiple,	Operationally, managing the complexity of the event was challenging, given that SCE was engaging in authorization for de- energization and re-energization	At times during the event, SCE's operations team divided into two teams, one team focused on de-energization decisions and the other team focused on

concurrent de-	simultaneously and assessing de-	re-energization, and at times divided into
energization decisions	energization on many circuits approaching criteria at the same	two teams by SCE region.
	time.	These operational practices will be further evaluated for effectiveness and refined for future use during large complex events with multiple or
Customers were unable to identify period of concern information on SCE.com for circuits in scope due to sudden onset of weather.	SCE cannot precisely predict weather conditions and the impact to the various parts of its system. As such, SCE is not able to provide period of concern information on its external maps.	overlapping periods of concern. SCE is actively expanding its machine learning modeling capabilities to enhance forecast accuracy. Weather forecasting remains inherently uncertain at a granular level, particularly during an unprecedented weather event of this size and complexity.
		SCE will continue to explore ways to estimate period of concern for circuits that are unexpectedly de-energized due to sudden onset of weather.
CRC/CCV location iconography did not automatically show on the outage status map.	During the event, users had to use the filter option to view the CRC/CCV locations on the outage status map, which may not be intuitive for some customers.	CRC/CCV location iconography is now defaulted so that CRC/CCV location information will be more easily accessible during PSPS events.
Circuit-level customer summaries for government officials were unavailable during initial days of activation.	In the initial days of the activation, due to the event's size and scale and the manual process of developing circuit level information, SCE was not able to provide government officials with a daily spreadsheet summarizing circuit-level customer information.	Midway through the event, SCE resumed providing the daily spreadsheet summarizing circuit-level customer information. SCE will explore additional automation to reduce the manual effort needed to produce this report, so that it can be sent even during large-scale events.
	This did not affect dispatch of pre and in-event notifications. Additionally, circuit and customer data continued to be available to government officials via the Public Safety Partner Portal throughout the event.	

Section 12. Other Relevant Information

1. This section includes any other relevant information determined by the utility.

SCE includes information related to PG&E customers de-energized during the PSPS event below. The figures below outlined pertinent details relevant to the event.

PSPS Ev	PSPS Event Summary (PG&E Shared Customers)										
		Total Customers			De-er	nergized		ľ	Number of Circuits		
PSPS No	tified	De-energized	Cancelled	MBL Customers	Number of Counties	Number of Tribes	Critical Facilities and Infrastucture	Transmission De-energized	Distribution Circuits in Scope	Distribution Circuits De-energized	Damage/Hazard Count
5		5	0	0	3	0	0	0	3	3	0

The figure below contains PSPS Event Summary Data for PG&E shared customers.

The figure below contains PSPS Circuit De-Energized data for PG&E shared customers.

Circuits De-Energized (PG&E Sha	ared Customers)								
County	Circuit Name	De-energization Date	De-energization Time (2400)	All Clear Declaration Date	All Clear Declaration Time (2400)	Restoration Date	Restoration Time (2400)	GO 95, Tier HFTD Tier(s) 1,2,3	Distribution / Transmission Classification
		01.09.25	1020						
Kern	Condor	01.11.25	2211	01.15.25	2058	01.15.25	2058	T2	Distribution
		01.08.25	0215						
		01.10.25	1931						
Santa Barbara	Cachuma	01.11.25	2207	01.12.25	1545	01.12.25	1545		Distribution
Santa Barbara	Mist	01.11.25	2205	01.12.25	1547	01.12.25	1547		Distribution

The figure below contains the Notification Timeline for PG&E shared customers.

Event Order	Notification Type	Requirement Timeline	Notification Sent To	Approximate Time Sent	Notes
	Initial Notice for PSPS Event (Advanced Initial or Initial)	72-48 hours			
Pre-De- Energization (prior)	Initial Notice for PSPS Event (Initial or Update)	48-24 hours	All affected customers	01.03.25 at 1202 01.04.25 at 1843 01.04.25 at 2219 01.07.25 at 0341 01.12.25 at 2043	Cachuma Cachuma Cachuma Mist Condor
	Imminent De-Energize (Expected)	4-1 hour	All affected customers	01.04.25 at 2219 01.08.25 at 0202 01.10.25 at 1711 01.12.25 at 0324	Cachuma Cachuma Cachuma Condor
In-Event (during)	De-Energized (Shutoff)	De-energization	All affected customers	01.08.25 at 0215 01.09.25 at 1020 01.10.25 at 1931 01.11.25 at 2205 01.11.25 at 2207 01.11.25 at 2211	Cachuma Condor Cachuma Mist Cachuma Condor
	Imminent Re-Energize (Prepare to Restore)	Imminent Re-energization	All affected customers	01.08.25 at 1610 01.10.25 at 0851 01.12.25 at 0523 01.12.25 at 0524	Cachuma Condor Mist Cachuma
Restoration (after)	Re-Energized (Restored In Scope and/or Restored No Longer in Scope)	Re-energization	All affected customers	01.09.25 at 0317	Cachuma
	Event Concluded (Cancellation)	All Clear	All affected customers	01.05.25 at 0206 01.05.25 at 0210 01.10.25 at 1153 01.12.25 at 1520 01.12.25 at 1520 01.15.25 at 2058	Cachuma Cachuma Condor Mist Cachuma Condor

The figure below contains the Positive Notification Data for PG&E shared customers.

Positive Notification (PG&E Shared Customers)					
Category	Total Number of Customers	Timing of Attempts	Notification Attempts	Successful Positive Notification	Who made the notification
Medical Baseline	0	DAILY	NA	N/A	N/A
Self Certified	0	DAILY	N/A	N/A	N/A

The figure below contains the Notification Timeline for PG&E shared customers.

Explanation
Emergent Weather
-

Attachment A-Public Safety Partner and Customer Notification Scripts

PSPS Variable Notification Templates

8/2/2024

1 | Advanced Initial [Typically 72 Hours Prior]

[Only for Public Safety Partners (Telecom/Water-Wastewater) and Critical Infrastructure]

TEXT/SMS

SCE Advanced PSPS Alert: High winds and fire conditions are forecast from ^Day of week^ ^morning/afternoon/evening^ through ^End Day of week^ ^morning/afternoon/ evening^. We may have to shut off power. Power restoration typically takes 8 hours, and will start after the wind subsides. Delays may occur if daylight is required for safe inspections. We are working to reduce the number of customers affected, and weather patterns might change, so not all notified customers will have their power shut off. For the latest updates, visit <u>publicsafetyportal.sce.com</u>, contact your assigned SCE account representative, or call 1-800-611-1911.

VOICE

SCE Advanced Public Safety Power Shutoff Alert: High winds and fire conditions are forecast from ^Day of week^ ^morning/afternoon/evening^ through ^End Day of week^ ^morning/afternoon/ evening^. We may have to shut off power. Power restoration typically takes 8 hours, and will start after the wind subsides. Delays may occur if daylight is required for safe inspections. We are working to reduce the number of customers affected, and weather patterns might change, so not all notified customers will have their power shut off. For the latest updates visit publicsafetyportal dot sce dot com, contact your assigned SCE account representative, or call 1-800-611-1911

EMAIL

Subject: SCE Public Safety Power Shutoff (PSPS) Advanced Initial Alert – https://approved.date.and.timeFrom: <a href="https://doi.org/10.1016/journal-content/c

High winds and fire conditions are forecast from ^Day of week^

^morning/afternoon/evening^ through ^End Day of week^ ^morning/afternoon/evening^. We may need to shut off power to decrease the risk of dangerous wildfires. Power restoration typically takes 8 hours, and will start after the wind subsides. Delays may occur if daylight is required for safe inspections. We are working to reduce the number of customers affected, and weather patterns might change, so not all notified customers will have their power shut off.

This alert applies to the following address(es):

Customer Address Service Account Meter Number

<mark>Rate</mark>

For the latest updates and availability of community resources, visit https://publicsafetyportal.sce.com/ if you are registered, contact your assigned SCE account representative, or call 1-800-611-1911.

2 | Initial Notification [48 HOURS BEFORE] ALERT

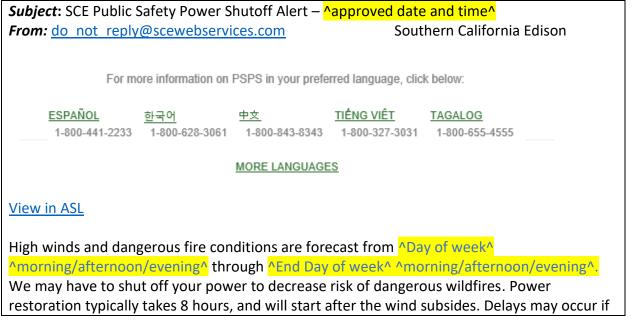
TEXT/SMS

SCE PSPS Alert: High winds and fire conditions are forecast from ^Day of week^ ^morning/afternoon/evening^ through ^End Day of week^ ^morning/afternoon/evening^. We may have to shut off your power to decrease risk during this time. Power restoration typically takes 8 hours, and will start after the wind subsides. Delays may occur if daylight is required for safe inspections. We are working to reduce the number of customers affected and will keep you updated. Visit <u>sce.com/psps</u> for the latest information. For downed power lines, call 911. View in more languages: <u>www.sce.com/PSPSInitial</u> or view in ASL: <u>https://ahas.sce.com?id=psps1</u>

VOICE

SCE Public Safety Power Shutoff Alert. To continue in English, press 1. [Spanish press 2], all other languages press 3.... High winds and fire conditions are forecast from ^Day of week^ ^morning/afternoon/evening^ through ^End Day of week^ ^morning/afternoon/ evening^. We may have to shut off your power to decrease risk of dangerous wildfires. Power restoration typically takes 8 hours, and will start after the wind subsides. Delays may occur if daylight is required for safe inspections. We are working to reduce the number of customers affected and will keep you updated. Visit sce dot com slash psps for the latest information. If you see a downed power line call 911.

EMAIL



daylight is required for safe inspections. We are working to reduce the number of customers whose power will be shutoff and will keep you updated. For the latest updates, outage map, and information about customer care services, visit <u>sce.com/psps.</u>

Thank you for your patience as we work to keep your community safe!

This alert applies to the following address(es):

Customer Address Service Account Meter Number Rate

- For information about preparing for a power outage, <u>visit</u> <u>sce.com/safety/family/emergency-tips</u>.
- REMEMBER: If you see a downed power line call 911 first, and then notify SCE at 1-800-611-1911.

3 | Update Notification [24 HOURS BEFORE] WARNING

TEXT/SMS

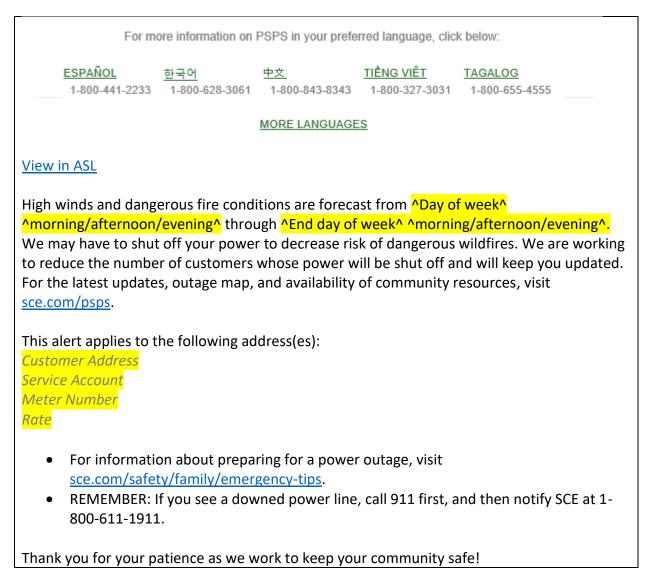
SCE PSPS Warning: High winds and fire conditions are forecast from ^Day of week^ ^morning/afternoon/evening^ through ^End Day of week^ ^morning/afternoon/evening^. We may have to shut off your power to decrease risk of wildfires. We are working to reduce the number of customers affected and will keep you updated. Visit <u>sce.com/psps</u> for the latest information and availability of community resources. For downed power lines, call 911. View in more languages: <u>www.sce.com/PSPSUpdate</u> or_view in ASL: https://ahas.sce.com?id=psps2

VOICE

SCE Public Safety Power Shutoff warning. To continue in English, press 1. [Spanish press 2], all other languages press 3.... High winds and dangerous fire conditions are forecast from ^Day of week^ ^morning/afternoon/evening^ through ^End Day of week^ ^morning/afternoon/ evening^. We may have to shut off your power to decrease risk of wildfires. We are working to reduce the number of customers whose power will be shutoff and will keep you updated. Visit sce dot com slash psps for the latest information and availability of community resources. If you see a downed power line call 911.

EMAIL

Subject:SCE Public Safety Power Shutoff (PSPS) Warning – ^approved date and time^From:donotreply@scewebservices.comSouthern California Edison



4 | CANCELLATION

(SENT AT ANY TIME WHEN CUSTOMER IS PERMANENTLY OUT OF SCOPE)

TEXT/SMS

SCE PSPS All-Clear: Due to improved weather, we did not shut off your power. We understand that planning around outages is inconvenient. Thanks for your patience as we work to keep our communities safe. If your power is off, please call 1-800-611-1911 or visit <u>sce.com/psps</u>. View in more languages: <u>www.sce.com/PSPSAllClear</u> or view in ASL: <u>https://ahas.sce.com?id=psps3</u>

VOICE

SCE PSPS All-clear: To continue in English, press 1. [Spanish press 2], all other languages press 3.... Due to improved weather, we did not shut off your power. We understand that planning around outages is inconvenient. Thank you for your patience as we work to keep our communities safe. If your power is off, please call 1-800-611-1911 or visit sce dot com slash psps.

EMAIL

Subject: SCE Public Safety Power Shutoff (PSPS) All-clear –			

5| PSPS EXPECTED (1-4 HOURS BEFORE SHUTOFF WARNING)

TEXT/SMS

SCE PSPS Expected: It's likely we will shut off your power in the next 4 hours due to wind-driven fire conditions. Conditions could last through <u>^End Day of week^ ^morning /afternoon /evening^</u>. We will notify you again if we shut power off. Weather could affect shutoff timing and wind-related outages may also occur. Visit <u>sce.com/psps</u> for the latest information and availability of community resources. For downed power lines, call 911. Thanks for your patience. View in more languages: <u>www.sce.com/PSPSExpected</u> or view in ASL:<u>https://ahas.sce.com?id=psps4</u>

VOICE

SCE PSPS Expected. To continue in English, press 1. [Spanish press 2], all other languages press 3.... It's likely we will shut off your power in the next 4 hours due to wind-driven fire conditions in your area. Conditions could last through <u>^End Day of week^ ^morning /afternoon /evening^</u>. We will notify you again if we shut off your power. Weather could affect shutoff timing and wind-related outages may also occur. Visit sce dot com slash psps for the latest information and availability of community resources. If you see a downed power line, call 911. Thank you for your patience.

EMAIL

Subject: SCE Public Safety Power Shutoff (PSPS) Expected – ^approved date and time^

From: do_not_reply@scewebservices.com

Southern California Edison

For m	ore information on	PSPS in your prefe	rred language, clic	k below:
ESPAÑOL 1-800-441-2233	<u>한국어</u> 1-800-628-3061	<u>中文</u> 1-800-843-8343	TIÉNG VIÊT 1-800-327-3031	TAGALOG 1-800-655-4555
		MORE LANGUAGE	<u>ss</u>	
<u>View in ASL</u>				
reduce the number of	hrough <mark>^End Day</mark> customers affect e will notify you a	of week^ ^morn ed. Weather coul again if we shut o	ing /afternoon /e d also affect shu ff your power. Fe	ven fire conditions. evening [^] . We are working to toff timing and wind-related or the latest updates, outage
We appreciate your pa	tience as we wo	rk to keep your co	ommunity safe.	
This alert applies to the	e following addre	ess(es):		
Customer Address Service Account Meter Number Rate				
 For information tips 	on about preparir	ng for a power ou	tage, visit <u>sce.co</u>	m/safety/family/emergency-
 REMEMBER: If 1911. 	you see a downe	ed power line, cal	l 911 first, and th	nen notify SCE at 1-800-611-
Thank you again for yo	ur continued pat	ience as we work	to keep your co	mmunity safe!
6 PSPS SHUTOFF (SENT AT AUTHORIZATI	ON TO DE-ENER	GIZE)		
SMS/TEXT				

SCE PSPS Shutoff: We are shutting off your power due to wind-driven wildfire risk. High winds are forecast through ^End Day of week^ ^morning/ afternoon/ evening^. When weather improves, we will inspect our lines for damage before we restore power. This is expected to take up to 8 hours but could take longer if we need daylight for safe inspections or if we find damage. Visit <u>sce.com/psps</u> for the most up to date info on restoration timing and SCE community resources in your area. Remember to turn off/unplug appliances or equipment that could restart automatically. For downed power lines, call 911. Thanks for your patience. View in more languages: <u>www.sce.com/PSPSShutoff</u> or view in ASL:<u>https://ahas.sce.com?id=psps5</u>

VOICE

SCE PSPS shutoff. To continue in English, press 1. [Spanish press 2], all other languages press 3.... We are shutting off your power due to current wind-driven wildfire risk. High winds are forecast through <u>End Day of week</u> <u>morning</u> afternoon/ evening. When the weather improves, we will inspect our lines for damage before we restore power. This is expected to take up to 8 hours but could take longer if we need daylight for safe inspections or if we find damage. Remember to turn off or unplug appliances or equipment that could restart automatically. Visit sce dot com slash psps for the latest information on restoration timing and SCE community resources in your neighborhood. If you see a downed power line, call 911. Thank you for your patience.

EMAIL

Subject: SCE Public Safety Power Shutoff (PSPS) – https://www.sci.org						
From: do_not_reply@scewebservices	From: do not reply@scewebservices.com					
For more information on PSPS in your preferred language, click below:						
<u>ESPAÑOL</u> <u>한국어</u> 1-800-441-2233 1-800-628-3067	<u>中文</u> 1 1-800-843-8343	<u>TIÊNG VIÊT</u> 1-800-327-3031	TAGALOG 1-800-655-4555			
	MORE LANGUAGE	ES				
<u>View in ASL</u>						
We are shutting off your power due to	-		-			
forecast to last through <u>^End Day of w</u> improves, we will inspect our lines for	damage before w	e restore power.	This is expected to take up			
to 8 hours but could take longer if we update you as conditions change. Plea		•	-			
that may start automatically when pov		1 0				
Please visit <u>sce.com/psps</u> for the most	tun to data inform	ation including	outogo man and rostoration			
information, and availability of SCE co		-	butage map and restoration			
REMEMBER: If you see a downed pow We understand this shutoff is inconve keep your community safe.						

This alert applies to the following address(es):

Customer Address Service Account Meter Number Rate

7 | CONTINUED SHUTOFF - NEXT DAY SHUTOFF UPDATE

(SENT IN THE AM TO OVERNIGHT OUTAGES)

SMS/TEXT

SCE Continued PSPS Shutoff: Thank you for your continued patience during this Public Safety Power Shutoff. High winds could continue through <u>AEnd Day of week</u> <u>Amorning /afternoon/</u> evening. Before we restore power, we will inspect our lines for damage. This is expected to take up to 8 hours but could take longer if we need daylight for safe inspections or if we find damage. Visit <u>sce.com/psps</u> for the latest info on restoration and SCE community resources in your area. For downed power lines, call 911. View in more languages: <u>www.sce.com/PSPSContinuedShutoff</u> or_view in ASL: https://ahas.sce.com?id=psps6

VOICE

SCE Continued PSPS. To continue in English, press 1. [Spanish press 2], all other languages press 3.... Thank you for your continued patience during this Public Safety Power Shutoff. High winds are forecast to continue through <u>^End Day of week^ ^morning /afternoon/ evening</u>. Before we restore power, we will inspect our lines for damage. This is expected to take up to 8 hours but could take longer if we need daylight for safe inspections or if we find damage. Visit sce dot com slash psps for the latest information on restoration and availability of community resources in your area. For downed power lines, call 911.

EMAIL

Subject: SCE Continued Public Safety Power Shutoff (PSPS) – https://www.selfattication.com			
From: do_not_reply@scewebservices.com Southern California Edison			
For more information on PSPS in your preferred language, click below:			
<u>ESPAÑOL 한국어 中文 TIÊNG VIÊT TAGALOG</u>			
1-800-441-2233 1-800-628-3061 1-800-843-8343 1-800-327-3031 1-800-655-4555			
MORE LANGUAGES			
View in ASL			
Thank you for your continued patience during this Public Safety Power Shutoff. Wind-driven fire			

conditions could last through <u>^End Day of week^ ^morning /afternoon/ evening</u>[^]. When the weather improves, we will inspect our lines for damage before we restore power. This is expected to take up to 8 hours but could take longer if we need daylight for safe inspections or if we find damage. Visit <u>sce.com/psps</u> for the latest information on restoration and SCE community resources in your area. We understand that any outage is an inconvenience. Thank you again for your continued patience as we work to keep your community safe!

REMEMBER: If you see a downed power line, call 911 first, and then notify SCE at 1-800-611-1911.

This alert applies to the following address(es):

Customer Address Service Account Meter Number Rate

8 | PREPARE FOR RESTORATION

SMS/TEXT

SCE PSPS Update: Winds have died down and we are starting to inspect our lines for damage. Restoration is expected to take up to 8 hours but could take longer if we need daylight for safe inspections or find damage. For updated restoration estimates in your area and for location of SCE community resources visit <u>sce.com/psps</u>. Please turn off/unplug appliances or equipment that could restart automatically and inspect your property for downed power lines. Call 911 if you find a downed line. We will alert you again when we restore power. View in more languages: www.sce.com/PSPSPrepRestore or view in ASL: https://ahas.sce.com?id=psps7

VOICE

SCE PSPS Update. To continue in English, press 1. [Spanish press 2], all other languages press 3.... Winds have died down and we are starting to inspect our lines for damage. Restoration is expected to take up to 8 hours but could be delayed if we need daylight for safe inspections or if we find damage. Please turn off or unplug any appliances or equipment that could restart automatically and inspect your property for downed power lines. Call 911 if you find a downed line. We will alert you again when we restore power. For updated restoration estimates in your area, and for location of SCE community resources visit sce dot com slash psps

EMAIL

Subject: SCE Public Safety Power Shutoff Update – ^approved date and time^

From: do_not_reply@scewebservices.com

Southern California Edison

	For more information on PSPS in your preferred language, click below:				
	ESPAÑOL 1-800-441-2233	<u>한국어</u> 1-800-628-3061	<u>中文</u> 1-800-843-8343	TIÊNG VIÊT 1-800-327-3031	TAGALOG 1-800-655-4555
			MORE LANGUAGE	<u>ES</u>	
<u>View i</u>	n ASL				
Winds have died down and we are starting to inspect our lines for damage. Restoration is expected to take up to 8 hours but could take longer if we need daylight for safe inspections or if we find damage. For updated restoration estimates in your area, and for location of SCE community resources visit <u>sce.com/psps</u> . We will alert you again when your power comes back on. Please turn off or unplug any appliances or equipment that could restart automatically and inspect your property for downed power lines. If you see a downed power line, stay away and call 911 first, then report it to SCE at 1-800-611-1911.					
	We understand that Public Safety Power Shutoff events can be disruptive and thank you for your patience as we work to keep your community safe.				
1			,		
This alert applies to the following address(es):					
	Customer Address Service Account				
Meter Rate	Number				

9 | RESTORED NO LONGER IN SCOPE (RESTORED & CANCELLATION [NO MORE RISK OF PSPS])

SMS/TEXT

SCE PSPS Ended: We have restored power in your area and ended the Public Safety Power Shutoff. If your power is still off, please call 1-800-611-1911 or visit <u>sce.com/outage</u>. We know that safety outages are inconvenient and thank you for your patience. View in more languages: <u>www.sce.com/PSPSEnded</u> or view in ASL: <u>https://ahas.sce.com?id=psps10</u>

VOICE

SCE PSPS Ended... To continue in English, press 1. [Spanish press 2], all other languages press 3.... We have restored power in your area and ended the Public Safety Power Shutoff due to improved weather conditions. If your power is still off, please call 1-800-611-1911 or visit sce dot com slash outage. We understand that safety outages are inconvenient and thank you for your patience.

EMAIL				
Subject: SCE Public Saf	ety Power Shuto	ff Ended: All Pow	ver Restored – <mark>^a</mark>	pproved date and time [^]
From: do_not_reply@scewebservices.com			Southern California Edison	
For me	ore information on	PSPS in your prefe	erred language, clic	k below:
ESPAÑOL 1-800-441-2233	<u>한국어</u> 1-800-628-3061	<u>中文</u> 1-800-843-8343	<u>TIÊNG VIÊT</u> 1-800-327-3031	TAGALOG 1-800-655-4555
		MORE LANGUAGE	ES	
<u>View in ASL</u>				
•	your power is stil	ll off, please call :	1-800-611-1911 c	our area due to improved or visit <u>sce.com/outage</u> . We patience.
This alert applies to the	e following addre	ess(es):		
Customer Address Service Account Meter Number Rate				
For more information a	about PSPS and v	vildfire safety, ple	ease visit <u>sce.cor</u>	n/psps.

10 | RESTORED IN SCOPE – RISK OF PSPS REMAINS

SMS/TEXT

SCE PSPS Update: Winds have improved enough for us to restore power in your area. However, because high winds are still forecast through <u>AEnd Day of week</u> <u>Amorning/afternoon/evening</u> we might have to shut off power again. We will update you as weather conditions change. If your power is still off, please call 1-800-611-1911 or visit <u>sce.com/psps</u>. Thanks for your patience. View in more languages: <u>www.sce.com/PSPSNotAllClear</u> or view in ASL: <u>https://ahas.sce.com?id=psps11</u>

VOICE

SCE PSPS Update: To continue in English, press 1. [Spanish press 2], all other languages press 3.... Winds have improved enough for us to restore power in your area. However, because high winds are still forecast through <u>^End Day of week^ ^morning/afternoon/evening</u> we may have to shut off your power again. We will keep you updated as weather conditions change. We understand that PSPS outages are inconvenient and thank you for your patience. If your power is still off, please call 1-800-611-1911 or visit sce dot com slash psps.

EMAIL

Subject: SCE Public date and time [^]	Safety Power Shu	toff Update: Powe	er restored; PSPS	still in effect – <mark>^approved</mark>
From: do_not_reply@scewebservices.com			Southern California Edison	
For more information on PSPS in your preferred language, click below:				
ESPAÑOL 1-800-441-22	<u>한국어</u> 233 1-800-628-3061	<u>中文</u> 1-800-843-8343	TIÊNG VIÊT 1-800-327-3031	TAGALOG 1-800-655-4555
		MORE LANGUAGE	<u>:s</u>	
View in ASL				
Winds have improved enough for us to restore power in your area. However, because high winds are still forecast through <u>^End Day of week^ ^morning/afternoon/evening</u> we may have to shut off your power again. We will keep you updated as weather conditions change. If your power is still off, please call 1-800-611-1911 or visit <u>sce.com/psps</u> .				
We understand that	t safety outages are	e inconvenient and	d thank you for y	our continued patience.
This alert applies to	the following addr	ess(es):		
This alert applies to Customer Address Service Account Meter Number Rate	the following addr	ess(es):		

<u>Template language for all notifications (after notification language)</u>

SCE Emergency Operations Center and IMT are activated. Contact information is provided below.

Message cadence: The SCE Liaison Officer provides a rolling three-day advance warning of potential PSPS events, when possible, and sends update notifications every day. We will also notify you with time-sensitive shutoff and restoration information at the circuit level. Sudden weather changes may impact SCE's ability to provide advanced notice: a shutoff could occur sooner than anticipated.

Spreadsheet content: All circuits currently on the watch list in your county are listed in the attached spreadsheet. As we get closer to the event and the weather forecast becomes more exact, additional circuits could be added or removed from our watch lists. Definitions are on the second tab of the spreadsheet.

Not all circuits on the watch list will have their power shut off. We are working to reduce the number of customers affected and weather patterns might change.

Customers on the affected circuits are being notified if they are within two days of the period of concern, or if there has been a change to their status.

Outage maps and other detailed information are available at the following locations:

- Maps showing PSPS boundaries and locations of about Community Resource Centers and Community Crew Vehicles: <u>https://www.sce.com/outage-center/check-outage-status</u>
- Public Safety Partner Portal (for registered users)
 - Email <u>publicsafetyportal@sce.com</u> to request access.
- REST service (web-based password-protected access to GIS layers)
 - <u>SCERestInfo@sce.com</u> to request access.

SCE Contact Information for Public Officials only (DO NOT share with the public)

- First Responders and Emergency Managers:
 - Phone: Business Resiliency Duty Manager 24/7 hotline: (800) 674-4478
 - Email: Business Resiliency Duty Manager/emergencies: <u>BusinessResiliencyDutyManager@sce.com</u> Note: Only monitored during emergency activations.
- Government/tribal officials:
 - Phone Liaison (government relations) 24/7 hotline: 800-737-9811. Note: Only monitored during emergency activations.
 - Email <u>SCELiaisonOfficer@sce.com</u>. **Note: Only monitored during emergency activations.**
- Access and Functional Needs issues:
 - Phone AFN Liaison Officer 24/7 hotline: 888-588-5552. Only monitored during emergency activations.
 - Email: <u>AFNIMT@sce.com</u>. **Note: Only monitored during emergency activations.**

Information available for the general public:

- SCE Contact Information for the Public: (Please share via web and social media).
 - Outage specific customer service issues: 800-611-1911
 - Billing and service inquiries: 800-684-8123

- Maps showing PSPS boundaries and locations of about Community Resource Centers and Community Crew Vehicles: <u>https://www.sce.com/outage-center/check-outage-status</u>
- General information on PSPS: <u>www.sce.com/psps</u>
- De-energization and restoration policies: <u>sce.com/pspsdecisionmaking</u>
- Information on emergency preparedness, customer notifications, customer programs and other resources: <u>www.sce.com/wildfire</u>
- Seven-day PSPS forecasts <u>https://www.sce.com/wildfire/weather-awareness</u>
- Fire and weather detection map <u>https://www.sce.com/wildfire/situational-awareness</u>

Advanced Initial (72-hour) LNO Notification (Advanced Initial)

Text Language: Important: SCE Advanced Initial Notice for PSPS Event in {County} CO on {Start POC Date}. Please see your inbox for more details.

Email Notification Subject Line and Message

Advanced Initial Notice for PSPS Event starting <mark>[start POC DATE]</mark> in <mark>[COUNTY NAME</mark>] <mark>as</mark> <mark>of [current date] [current time] .</mark>

COMMENTS:

Public Safety Power Shutoff initial notification for official use: Due to projected fire weather conditions, we may need to shut off power in high fire risk areas in COUNTY NAME. Please refer to the attached spreadsheet for status and periods of concern for specific circuits.

Recommended Language to Share with the Public: SCE has informed us they may be calling for a Public Safety Power Shutoff impacting (insert organization name) on (insert date). SCE will notify all customers who may be affected, including Critical Care and Medical Baseline customers. For more info: sce.com/psps

When the weather improves, crews will inspect and repair the lines and restore power. Typically, this can take up to 8 hours. Updates to restoration information will be posted on www.sce.com/psps and on the Public Safety Partner Portal.

Updated Conditions (Update) Notification

Text Language: Important: SCE Update/Initial Notice for PSPS Event in {County} CO. Please see your inbox for more details.

Notification Subject Line and Message:

SCE Update/Initial Notice for PSPS Event starting <mark>[start POC DATE] in [COUNTY NAME</mark>] as of [current date] [current time] .

COMMENTS:

Public Safety Power Shut-Off update notification for official use:

Due to projected fire weather conditions, we may need to shut off power in high fire risk areas, in COUNTY NAME. Please refer to the attached spreadsheet for status and periods of concern for specific circuits.

Recommended Language to Share with the Public: SCE has informed us there may be a Public Safety Power Shutoff impacting (insert organization name) on (insert date). SCE will notify all customers who may be affected, including Critical Care and Medical Baseline customers. For more info: sce.com/psps

Expected De-Energize Notification (previously: Imminent De-Energization) (PSPS Expected)

Text Language: Important: SCE Expected Shutoff Notice for PSPS Event on {Circuit(s)} Circuit in {County} CO. Please see your inbox for more details.

Email Notification Subject Line and Message:

SCE Expected Shutoff Notice for [<mark>CIRCUIT NAME</mark>] Circuit for PSPS Event starting <mark>[start</mark> POC DATE] in [COUNTY NAME] as of [current date] [current time] .

Public Safety Power Shutoff update notification for official use: SCE may need to shut off power in the next 4 hours to reduce the risk of wildfire ignition. Areas that may be impacted include:

- Circuit: [CIRCUIT name]
- County:
- Segment: [if listed]
- Incorporated City of:
- Unincorporated County Area:
- COMMENTS:

Shutoffs may occur earlier or later depending on actual weather conditions. This notice expires after 4 hours; however, the listed circuit(s) will remain on the watch list and will be subject to PSPS until the conclusion of this weather event.

Recommended Language to Share with the Public: SCE has informed us they are likely to call a Public Safety Power Shutoff impacting (insert organization name) within the next four hours. SCE will notify all customers who may be affected. For more info: sce.com/psps

PSPS Shutoff Notification (De-energization notification)

Text Language: Important: SCE PSPS Shutoff Notice for {Circuit(s)} Circuit in {County} CO. Please see your inbox for more details.

Email Notification Subject Line and Message:

SCE PSPS Shutoff Notice for [CIRCUIT NAME] Circuit for PSPS Event starting [start POC DATE] in [COUNTY NAME] as of [current date] [current time].

Public Safety Power Shutoff update notification for official use: SCE is shutting off power to reduce the risk of wildfire ignition.

Impacted circuits and locations are:

- Circuit: [CIRCUIT name]
- County: [COUNTY NAME].
- Segment:
- Incorporated City of: [Incorporated City]
- Unincorporated County Area: [unincorporated area description]
- Comment:

When the weather improves, crews will inspect and repair the lines and restore power. Typically, this can take up to 8 hours. Updates to restoration information will be posted on <u>www.sce.com/psps</u> and on the Public Safety Partner Portal.

Recommended Language to Share with the Public: SCE has begun a Public Safety Power Shutoff. SCE notified customers who may be affected, including Critical Care and Medical Baseline customers. For more information visit sce.com/psps

(Preparation for Restoration)

Text Language: Important: SCE Preparation for Restoration {Circuit(s)} Circuit in {County}. Please see your inbox for more details.

Email Notification Subject Line and Message:

Preparation for Restoration [CIRCUIT NAME] Circuit Shutoff Notice for [<mark>CIRCUIT NAME</mark>] Circuit for PSPS Event starting <mark>[start POC DATE] in [COUNTY NAME</mark>] as of [current date] [current time].

Public Safety Power Shutoff update notification for official use: SCE crews are inspecting the following circuits or circuit segments to restore power as soon as it is safe to do so:

- Circuit: [CIRCUIT name]
- Segment(s): *if entered in Foundry*
- Incorporated City: [incorporated city]
- Unincorporated County Area: [unincorporated area description]
- Comments:

Typically, power is restored in up to 8 hours. Exceptions include circuits requiring daylight for

inspection and circuits that need repair. Restoration may be done in segments, meaning some parts of the circuit will be restored before others. Updates will be posted on <u>www.sce.com/psps</u> and the Public Safety Partner Portal.

Recommended Language to Share with the Public: SCE has begun patrolling circuits for damage before turning the power back on. It typically takes up to 8 hrs to restore power once the patrol begins. Restoration can be delayed if damage is found, or aerial patrol is needed. For more info visit sce.com/psps

Restore Notification (formerly: RE-ENERGIZE) Restoration Notification

Text Language: Important: SCE Restoration Notice for PSPS Event on {Circuit(s)} Circuit in {County} CO. Please see your inbox for more details.

Email Notification Subject Line and Message:

Important: SCE Restoration Notice for PSPS Event on <mark>[CIRCUIT NAME]</mark> Circuit Shutoff Notice for [<mark>CIRCUIT NAME</mark>] Circuit for PSPS Event starting <mark>[start POC DATE] in [COUNTY</mark> <mark>NAME] as of [current date] [current time] .</mark>

Public Safety Power Shutoff update notification for official use:

SCE crews have restored power on the following circuit or circuit segments:

- Circuit: [CIRCUIT name]
- Segment(s): *if entered in Foundry*
- Incorporated City: [incorporated city]
- Unincorporated County Area: [unincorporated area description]
- **Comment**:

Recommended Language to Share with the Public: SCE has begun turning power back on to circuits. Some areas may be restored sooner than others. For more info visit sce.com/psps

Cancellation no longer in scope

Description: Sent within two hours after a circuit no longer in scope for PSPS

Text Language: Important: SCE PSPS Cancellation {Circuit(s)} Circuit in {County} CO. Please see your inbox for more details.

Notification Subject Line and Message:

Important: SCE PSPS Cancellation as of <mark>{LNO Authorized Date}</mark> **{LNO Authorized Time}** for PSPS Event <mark>{Start POC Date} {Circuit(s)}</mark> Circuit in <mark>{County}</mark> CO.

Public Safety Power Shutoff update notification for official use: Due to improved conditions SCE is no longer planning to shut off power the circuit listed below.

- Circuit: [CIRCUIT name]
- County:
- Segment: [if listed]
- Incorporated City of:
- Unincorporated County Area:

Language to share with the public: Some customers in our area are no longer in scope for public safety power shutoffs. Check sce.com/outages for more information.

Event Concluded Notification

Text Language Important: SCE PSPS Event Concluded in {County} CO. Please see your inbox for more details.

Email Notification Subject Line and Message:

SCE PSPS Event Concluded in [COUNTY NAME].

Public Safety Power Shutoff update notification for official use: If customers were de-energized, power has been restored and the PSPS event has concluded.

Recommended Language to Share with the Public: *The public safety power shutoff in your area has concluded. If your power is still out, please visit <u>sce.com/outages</u> for more information.*

Any circuit that was identified for potential PSPS is All Clear and will not be de-energized for this event

The templates for other messages that SCE sent to keep customers informed are also available upon request

Attachment B-Quantitative and Qualitative Factors in PSPS Decision-Making Technical Paper



QUANTITATIVE AND QUALITATIVE FACTORS FOR PSPS DECISION-MAKING

Revision: November 6, 2023



As the severity and frequency of wildfires in California continues to grow,¹ the state's utilities, including Southern California Edison, have implemented Public Safety Power Shutoffs (PSPS) to reduce the risk of electrical infrastructure igniting a significant wildfire. SCE's core objective is to keep customers safely energized, which is why PSPS remains a tool of last resort. We forecast with as much granularity as possible and then work to reduce the number of customers impacted.

Customer impacts are reduced by de-energizing only when necessary, based on real-time weather reporting; isolating only those circuits that present significant risk; moving customers between circuits (sectionalization) and turning off specific segments while keeping other segments of the same circuit energized (segmentation).

We use preset thresholds for dangerous wind speeds, low humidity and dry fuels as the basis of our decision-making. These thresholds are set for each of the circuits in high fire risk areas (HFRAs) and are continuously reviewed to calibrate the risk of significant events against the potential for harm to customers from the loss of power.

In 2021, based on an examination of 26 years of historical fire activity, SCE updated its thresholds for all but one fire climate zone within our service area.

Simultaneously, grid hardening efforts, including replacing bare wire with covered conductor (see box, right), are reducing ignition risk and thereby allowing SCE to raise thresholds on many of the circuits most frequently impacted in the 2019 and 2020 fire seasons.*

REDUCING THE NEED FOR PUBLIC SAFETY POWER SHUTOFFS

Concurrent with the work that SCE is doing to reduce the number of customer impacts from PSPS, we are increasing grid resiliency in high fire risk areas through grid hardening measures. The more resilient grid (described in our <u>Wildfire Mitigation Plan</u>) will help reduce the risk of utility equipment sparking significant wildfires and the need for PSPS.

Since 2018, SCE has replaced more than 2,000 circuit miles of bare wire with covered conductor, with additional miles in progress. Covered conductor should prevent ignitions associated with objects or vegetation contacting power lines or conductor-to-conductor contact.

Additional grid hardening activities since 2018 include the installation of 100 sectionalizing devices, more than 7,500 fire-resistant poles and more than 13,000 fast-acting fuses.

* For simplicity, we are referring to the last fire season as the "2020 fire season" although it includes the PSPS event from Jan. 12 to 21, 2021.

DECISION-MAKING

PSPS decisions are based on quantitative analyses while accounting for qualitative factors such as societal and emergency management impacts.

SCE makes PSPS decisions predominantly at the distribution grid level. Decision-making for transmission-level de-energization is not covered in this paper.

THRESHOLDS

All circuits have an **activation threshold**, defined by the Fire Potential Index (FPI) and the wind speed at which they are considered at risk. Activation thresholds are computed for each circuit for the season. For each PSPS event, every circuit also has a **de-energization threshold**. De-energization thresholds are determined separately for each circuit to prioritize circuits for de-energization based on the specific risks of the event. This is particularly important for large events where many circuits must be evaluated simultaneously. The baseline activation thresholds for each of the high fire risk area circuits are included in the online appendix.

SCE PSPS TERMINOLOGY

Consequence score: Used to quantify risk in decision-making

Incident commanders: All decision-making in PSPS events is authorized by an incident commander, who represents the company and undergoes continuous training in PSPS response.

Incident Management Team: SCE follows principles of the National Incident Management System and components of the Standardized Emergency Management System during PSPS events. This includes using an Incident Management Team structure to execute PSPS events.

In-Event Risk Calculation: A decision-making tool that assesses and compares potential public safety risk (PSPS risk) and the benefit of de-energization (wildfire risk) 24 hours out from the start of the period of concern.

In scope: Circuits at risk are deemed to be in scope when they are at risk for reaching event risk thresholds.

Monitored circuit list: Circuits in scope are listed and prioritized and each circuit has a specific time range for which it is forecasted to be of concern.

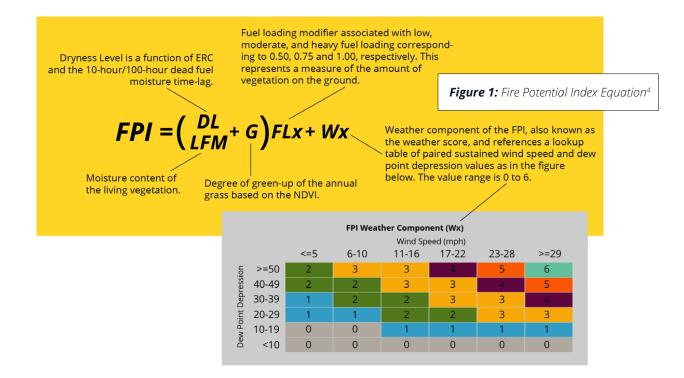
Period of concern: The forecasted period, including start and end time, as measured in three-hour time blocks.

REST Service (Representational state transfer): A software architecture we use to share GIS maps with public agencies.

FIRE POTENTIAL INDEX

FPI estimates the likelihood of a spark turning into a major wildfire. FPI uses a whole-number scale with a range from 1 to 17 and are categorized as normal (1-11), elevated (12-14) and extreme (15+). Historical FPI and state and federal fire data shows that the most severe fires in terms of number of acres damaged occur at the higher levels of FPI (FPI is calculated using the following inputs (Figure 1):

- Wind speed—Sustained wind velocity at 6 meters above ground level.
- **Dew point depression**—The dryness of the air as represented by the difference between air temperature and dew point temperature at 2 meters above ground level.
- Energy release component (ERC)—"The available energy (BTU) per unit area (square foot) within the flaming front at the head of a fire ... reflects the contribution of all live and dead fuels to potential fire intensity."²
- **10-hour dead fuel moisture**—A measure of the amount of moisture in ¼-inch diameter dead fuels, such as small twigs and sticks.
- **100-hour dead fuel moisture**—A measure of the amount of moisture in 1-to 3-inch diameter dead fuels, i.e., dead, woody material such as small branches.
- Live fuel moisture—A measure of the amount of moisture in living vegetation.
- Normalized Difference Vegetation Index (NDVI)—"... used to quantify vegetation greenness and is useful in understanding vegetation density and assessing changes in plant health."³



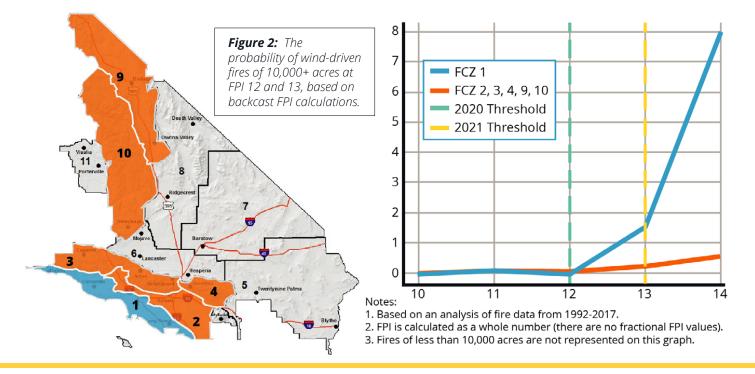
The variables used to generate the FPI score come from the Weather Research and Forecasting (WRF) model⁵, which has been customized for SCE to replicate our specific geography and weather conditions. Individual components of the FPI score are forecast hourly for each 2 km by 2 km grid cell. The model is run twice a day and provides an hourly forecast for five days forward. The forecasts associated with each of the FPI components for each grid cell are then summarized by circuit for three-hour intervals.

The forecasted FPI is further refined and calibrated by integrating model guidance from multiple public sources such as sampling from fire agencies and proprietary data. These refined FPI values are used to determine which circuits are forecast to breach PSPS thresholds during the event, and the values are recorded on SCE's monitored circuit list. In many cases, SCE's meteorologists and operations experts further refine these initial estimated FPI values in real time during the period of concern, based on actual weather observations.

Initially, SCE set the FPI threshold to 12 for all circuits in SCE's high fire risk areas. Starting on Sept. 1, 2021, SCE raised the FPI to 13 for most areas and most events based on a risk analysis of historical fire data.

Exceptions where the FPI threshold continued to be set at 12 include:

- Fire Climate Zone 1 (FCZ1) (Coastal region) The threshold for FCZ1 is staying at 12 because probability calculations indicated a significantly higher ignition risk factor at an FPI threshold of 13 for this FCZ than for the other FCZs (2, 3, 4, 9 and 10). (Figure 2)
- **Geographic Area Coordination Center (GACC) preparedness level of 4 or 5** The GACC coordinates multiple federal, state, and regional fire suppression resources. It provides daily fire preparedness levels on a scale of 1-5. A high score signals that there is significant resource drawdown which could negatively impact fire response.
- **Circuits located in an active Fire Science Area of Concern (AOC)** AOCs are areas within FCZs that are at high risk for fire with significant community impact. This designation is based on factors that are part of FPI, as well as egress, fire history and fire consequence. Further details about AOCs can be found in SCE's Wildfire Mitigation Plan.⁷



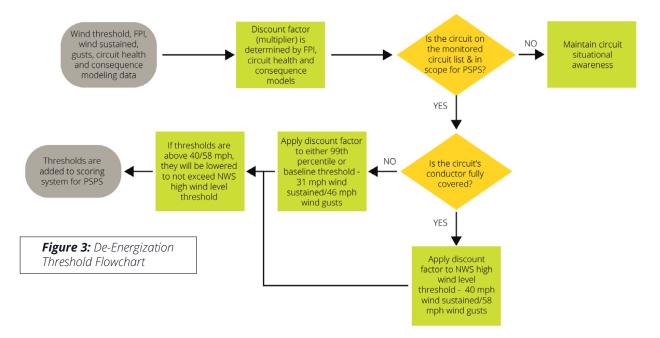
In 2023, SCE identified certain remote and isolated areas (less than 1% of SCE's high fire risk area) where an FPI threshold of 11 may be appropriate to mitigate additional fire risk created by unique factors such as extremely limited egress and constrained fire suppression capability. SCE does not anticipate a significant increase in PSPS events as a result of lowering the FPI threshold in these areas.

WIND SPEED

SCE considers the lower of the National Weather Service's (NWS) wind advisory levels (defined as 31 mph sustained wind speed and 46 mph gust wind speed) or the 99th percentile of historical wind speeds to set activation thresholds for each circuit. The <u>wind advisory level</u> is chosen because debris or vegetation is likely to become airborne as described by the Beaufort Wind Scale,⁸ while a circuit's 99th percentile wind speeds represent extreme and unusual wind activity for the area.^{*}There are a handful of circuits that have legacy thresholds below the NWS advisory level because they have a history of local circuit outages at lower wind speeds.

CALCULATING DE-ENERGIZATION THRESHOLDS

De-energization thresholds account for circuit health, including any outstanding maintenance and issues identified through patrols,⁹ and are also informed by a **consequence score** for each specific high fire risk area. The consequence score estimates the impact of an ignition on communities. The higher the score, the greater the risk to a particular location from wildfires. SCE's process for calculating de-energization thresholds is outlined in Figure 3 below.



If actual conditions suggest more risk, or in large-scale events when many circuits are under consideration for shutoffs, the de-energization thresholds may be lowered (discounted), meaning power on a circuit will be turned off at lower wind speeds. This step prioritizes the circuits that represent the highest risk to be evaluated for de-energization before circuits at lower risk.

*top 1% each year, based on 10 years of data

Conversely, de-energization thresholds are raised for segments or circuits that have had covered conductor installed. The de-energization threshold for segments with covered conductor is 40 mph sustained/58 mph gusts which aligns with the National Weather Service high wind warning level for windspeeds at which infrastructure damage may occur. Other factors, such as maintenance issues, could lower the thresholds for specific events.

TOOLS AND TECHNOLOGIES

To better inform PSPS decision-making, SCE has invested in tools, technologies and practices to improve forecasting. In 2020, two super computers produced twice-daily, high-resolution weather and fuel modeling forecasts for the more than 1,100 distribution circuits in SCE's high fire risk areas. (Two additional super computers and machine learning technology will improve forecasting accuracy in 2021.) The models resolve the complex flows that occur in California's mountainous topography.

PRE-PLANNING (PRIOR TO WILDFIRE SEASON)

PSPS preparedness activities take place year-round. Pre-planning work includes establishing circuit-specific FPI and wind speed thresholds for activation, reviewing circuits for fuel risk and developing process and tool enhancements, such as updating circuit switching plans for circuits in high fire risk areas.

CIRCUIT SEGMENT REVIEWS

We use an exception review process to remove circuit segments from consideration for PSPS when the wildfire risk is temporarily or permanently abated. An example would be a portion of a circuit traversing a recent burn scar where there is little or no vegetation remaining to pose an ignition risk. Circuit segment exceptions are identified when SCE begins preparing detailed designs for grid hardening activities or through specific feedback received from the field. This process is further informed by field teams who have current knowledge of changing conditions in specific areas.

A review team composed of SCE experts from PSPS operations, fire science and risk management evaluates each circuit segment's unique characteristics (e.g., construction type, outage history) and location characteristics (e.g., fuel quantity, fuel type, fuel dryness, fuel age and history of fires in the area) to assess the fire risks associated with that segment. Through the circuit exception review process, SCE has removed more than 31,000 customers on 26 circuits from consideration for PSPS in 2020 that had been at risk in 2019. We are continuing to review circuits to further reduce PSPS impacts as part of our PSPS Action Plan for 2021.

SWITCHING PLAN DEVELOPMENT

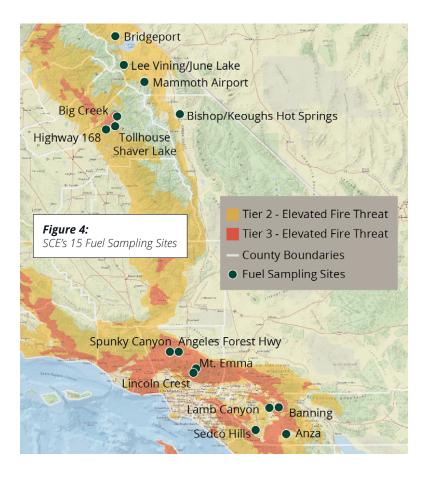
Every circuit in SCE's high fire risk area has ties to other circuits. This provides flexibility to potentially isolate customers from high fire risk areas to minimize customer impacts to the smallest extent possible. SCE develops switching plans to determine whether circuit segments could be transferred using field isolation devices. Individual circuits could have one or more switching plans to account for different weather conditions. These switching plans are used for all circuits under consideration in an event and customers can be switched both before and during events. Switching plans can be used in some situations to remove critical infrastructure from circuits under consideration for shutoff.

The switching plans include mapping the location of isolation devices, associated weather stations, mapping of any underground circuit sections and description of areas of the circuit where circuit exceptions may be applied where the conditions are not conducive to a fire start (e.g., area has covered conductor, paved roadways or no vegetation).

FUEL MOISTURE ANALYSIS

Live fuel moisture observations are obtained biweekly, year-round (weather permitting) to determine inputs for FPI calculations. Fifteen sites are sampled in four fireprone geographic areas: the eastern Sierra (along Highway 395), the western Sierra, northern Los Angeles County and the Inland Empire (Figure 4).

Samples of native vegetation from each of the 15 sites are weighed, dried and then weighed again to determine the vegetation's moisture content. This field research targets the areas that have the greatest fire potential. The data from this fuel sampling program is used to develop and train machine-learning models to estimate live fuel moisture, which serves as one of the inputs into the FPI. SCE also uses the data to calibrate FPI by improving the accuracy of the high-resolution weather and fuel modeling output from weather vendor American Digital Systems.



Dead fuel moisture factors into the dryness level in the FPI in both 10-hour and 100-hour measures. It is calculated twice daily using the field sample data and a series of mathematical algorithms that account for precipitation as well as the diurnal variability that occurs with temperature and relative humidity.

EVENT PLANNING (FOUR TO FIVE DAYS PRIOR TO POTENTIAL SHUTOFF)

At five days before potential weather events, the meteorologists and fire science team can review the first model run of twice-daily weather and fuel forecasts from SCE's super computers to determine if established thresholds are expected to be breached.

No customers are notified at this point, given the uncertainty of longer-range forecasting.

IMT ACTIVATION (ONE TO THREE DAYS PRIOR TO EXPECTED SHUTOFF)

If forecasts predict that thresholds will be breached within one to three days, the team facilitates a forecast weather call to activate the IMT under the authorization of the incident commander.

The meteorologists produce a monitored circuit list and an associated period of concern table. The table includes a specific forecast start and end time for each circuit, broken down in three-hour time blocks.

Additional quantitative and qualitative factors are monitored in real time once circuits are identified.

As the event gets closer, the initial monitored circuit list and period of concern table are validated by the meteorologists and the fire science team. They improve the raw model using forecasting experience, other weather models and pattern recognition.

The Advanced Circuit Evaluation (ACE) team — a team of SCE engineers and analysts — develops individual de-energization thresholds for each circuit segment for the event based on the pre-assigned activation thresholds. The team assesses circuit conditions and identifies any potential issues that need to be resolved.*

EVENT MANAGEMENT PLANNING

The IMT, under the incident commander, makes staffing and resource decisions (See Complexity Factors, Table 1) and develops a unique event management plan. The plan details the de-energization thresholds and cadence of decision-making based on the complexity of the event and situational information. Managing to the plan allows the PSPS team sufficient time to process simultaneous de-energizations when multiple circuits might approach de-energization thresholds in parallel. For small scale events (up to 30 circuits in scope and limited complexity), an event management plan allows us the flexibility to make individual segment decisions as late as possible.

Criteria	Impacts			
Number of distribution circuits in scope (primary circuits)	Increased number of customer and public safety partner notifications requires coordination to ensure alignment between functional groups.			
Sub-transmission circuits in scope	De-energizing sub-transmission circuits could potentially create significant customer impacts and local SCE-system reliability issues.			
Transmission circuits in scope	Potential for significant customer impacts and reliability issues.			
Significant number of circuits forecasted to exceed de-energization thresholds	 Requires additional staffing to support higher volume of individual de-energization decisions at the circuit segment level. Stresses resource availability to manage restoration in the field. 			
Large number of counties/ large geographic spread	Increases resource needs. Overextends customer care resources.			
Large customer count	Increases demand on customer care resources.			
Customer demographics	A high number of access and functional needs customers and/or critical infrastructure providers increases level of support provided by SCE.			
Complex/concurrent incidents	Intersecting impacts such as fires, extreme heat or wind-related outages require increased coordination with public safety partners.			
Multi-day events	Multi-day events are a significant burden on impacted customers. Providing temporary relief requires planning and significant resources in the field.			
Number of circuits close to (below) MCL criteria threshold	Risk of additional circuits that could potentially come into scope and rapidly.			

Table 1: Complexity Factors

^{*} There is a small subset of circuits with 99th percentile wind speed values that are significantly higher than the NWS wind advisory cap. In instances where wind speeds are forecast to exceed the activation threshold but are not expected to come within proximity of the 99th percentile value, the incident commander may elect not to activate the PSPS protocol. We may dispatch field crews to observe the circuits for possible debris fly-ins but may not activate PSPS due to the low probability of reaching de-energization threshold values.

PRE-PATROLS IN THE FIELD

Where possible, every circuit in scope is patrolled before the arrival of the forecasted weather, unless it was already patrolled within the previous seven days. Crews visually inspect the entire length of each circuit to find any imminent hazards that require immediate remediation and provide additional up-to-date intelligence on field conditions. If maintenance concerns are discovered on a circuit in scope, repairs are expedited (if possible) before the impending wind event.

COORDINATION

SCE meets with local governments, the emergency management community and first responders to inform them about the event, including the location of circuits in scope in their jurisdictions, and to discuss any public safety concerns that should be taken into account.

Situational awareness notifications are sent to local and county jurisdictions, public safety partners and critical infrastructure providers starting at three days out.

CUSTOMER NOTIFICATIONS

Customer notifications begin 24-48 hours ahead of the forecasted weather event. Because these notifications are based on two-day-ahead forecasting at the circuit level, they lack the precision of later, in-event notifications, which will be based on real-time weather readings at the segment level. They also do not reflect in-event efforts to sectionalize circuits to reduce customer de-energizations.

"The wildfire risks that are reduced through PSPS must be balanced against the potential public safety risks that are introduced by a temporary loss of power. SCE maintains transparent coordination with emergency management officials and other public safety partners leading up to and during PSPS events."

IN-EVENT RISK CALCULATION

A new in-event calculator provides an event-based quantitative comparison of risk scores to inform deenergization decision making. The PSPS risk and the benefit of de-energization (wildfire risk) are modeled independently and provided to incident commanders 24 hours in advance of the period of concern. This calculator is also documented in the post-event reports required by Resolution ESRB-8.

IN-EVENT DECISION-MAKING

Three to six hours before the winds are forecasted to meet de-energization thresholds, the PSPS IMT moves from forecasting to real-time weather monitoring, using SCE's 1,050 field weather stations and other public weather stations. Every 10 minutes, SCE weather station readings are updated for each circuit. Meteorologists compare the forecast conditions to the actual conditions to identify trends that could suggest whether wind speeds are increasing or decreasing.

LIVE FIELD OBSERVATIONS

Live field observers are stationed at every circuit in scope, at least two hours before the forecasted start of the event (when feasible). Observers are trained SCE employees who monitor circuits for any possible signs of failure and for environmental conditions that could accelerate the need to turn off power, such as potential for damage from wind gusts, airborne vegetation or other flying debris. Field crews also use handheld weather stations to provide field condition readings to supplement information from fixed weather stations.

ACE TEAM DECISION-MAKING PROCESS

The ACE team activates circuit switching plans to reduce the number of customers who lose power.

In-event data is gathered on a master database populated with the de-energization threshold of each circuit segment and auto-populated every 10 minutes with updated wind speeds from circuit-specific weather stations. Field input is provided to the team in real time to inform decisions. As a circuit, or segment of a circuit approaches its de-energization threshold, this team will recommend shutoffs. The incident commander will review each unique recommendation and validate using additional data, such as field reports, if necessary, before approving the decision.

IMMINENT DE-ENERGIZATION NOTIFICATIONS

In addition to other notification requirements, CPUC guidelines require notifying all customers one to four hours in advance of power shutoffs, if possible. Predicting when this window will occur in advance of changing weather conditions can be challenging. Notifying customers too early may result in over-notification: customers may receive a warning of de-energization but not lose power if wind speeds do not reach forecasted conditions. Conversely, waiting until wind speeds pick up significantly can result in missing this window and not providing customers advance notice before a power shutoff. For the 2021 fire season, we continue to refine the timing and content of our notifications to be more effective.

ADDRESSING PUBLIC SAFETY CONCERNS

The wildfire risks that are reduced through PSPS must be balanced against the potential public safety risks that are introduced by a temporary loss of power. SCE maintains transparent coordination with emergency management officials and other public safety partners leading up to and during PSPS events. The PSPS team considers how best to manage de-energizations that may impact public safety and determines if any mitigating actions can be taken to reduce the associated risk. Mitigating actions may include sectionalizing lines to minimize the amount of the line that is de-energized or temporarily providing a backup generation source to a critical facility.

Information is provided to public safety partners through a notification sequence managed by the liaison officers and enhanced by access to REST service maps. Starting in June 2021, an online public safety partner portal will provide these partners with enhanced and simplified access to information. Public safety partners have been consulted on the development of the new public safety partner portal.

Requests to delay de-energization or re-energize circuits are addressed on a case-by-case basis. Potential reasons to delay the de-energization of a circuit could include the need to power water pumps for fire suppression, evacuations in progress and critical facilities that are not equipped with sufficient backup generation.* These requests may come from fire agencies or from other emergency management agencies during an event. The incident commander has the final authority to determine a response for SCE.

PATROL AND RE-ENERGIZATION

The ACE team continues to monitor all circuits that are de-energized and watches for winds to decrease below thresholds, which will trigger patrol for reenergization. For multiday events, with gaps of even a few hours, field crews will attempt to restore customers before the second period of concern begins, even if this will require a repeat de-energization.

In most cases, field crews are standing by for patrol, which is typically accomplished within eight hours (for more than 90% of circuits). Some circuits will require foot or helicopter patrol. If possible, customers on difficult-to-patrol circuits are switched to more accessible circuits for restoration, so that circuits with no customers on them will be the last in line for restoration.

^{*}Many critical infrastructure customers are required by law or industry standard to have back-up generation in place to sustain critical operations during a power outage, regardless of outage type. Other customers not required to have back-up generation are encouraged to consider adding this capability to meet critical needs that require electricity during a power outage.

NEXT STEPS FOR PSPS DECISION-MAKING

Lessons learned, customer feedback and the 2021 PSPS Action Plan are informing SCE's plans for improving decision-making to better serve our customers and our communities for the 2021 fire season. SCE will:

- Use fire spread predictions to estimate how large fires may grow and what their subsequent impact on nearby communities may be. Following evaluation, we will incorporate these estimations to clarify the PSPS geographic coverage to reflect true fire weather conditions more accurately.
- Improve in-house forecasting capabilities to reduce the variance between the customers who are notified of potential de-energization and the customers who are actually de-energized due to the onset of increased fire danger conditions, as well as the number of customers who lose power without prior notification.
- Acquire more computing power to increase resolution of weather and fire potential predictions. This will include doubling the forecast resolution from 2 km to 1 km, which will allow for more precise weather and fuels forecasts.

These improvements should result in adjustments to the activation and de-energization thresholds, resulting in fewer customers losing power because of PSPS. Grid hardening efforts should also reduce the number of customers who experience a PSPS outage assuming the same weather conditions as 2020.

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Online appendix (including May 2021 draft) is available at <u>SCE.com/PSPSDecisionmakingAppendices</u>



Attachment C-PSPS Event Data Workbook

Attachment D-PSPS Maps of Mitigated Circuits (Separate PDF)

SCE PSPS Post Event Report January 4, 2025

Officer Verification

I am an officer of the applicant corporation herein and am authorized to make this

verification on its behalf. I am informed and believe that the matters stated in the

foregoing document are true.

I declare under penalty of perjury that the foregoing is true and correct. Executed

this 28th day of February 2025 in Rancho Palos Verdes, California

—signed by: Michael Marelli

Mike Marelli Vice President,

Operational Services