

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE  
STATE OF CALIFORNIA**

Order Instituting Rulemaking to Examine  
Electric Utility De-Energization of Power  
Lines in Dangerous Conditions.

Rulemaking 18-12-005

**SOUTHERN CALIFORNIA EDISON COMPANY'S (U 338-E) PUBLIC SAFETY  
POWER SHUTOFF POST-EVENT REPORT FOR DECEMBER 9, 2023  
DE-ENERGIZATION EVENT**

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Dated: **January 9, 2024**

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In compliance with California Public Utilities Commission Public Safety Power Shutoff (PSPS) Order Instituting Rulemaking Phase 1 Decision (D.) 19-05-042, Phase 2 D.20-05-051, Phase 3 D.21-06-034 and PSPS Order Instituting Investigation D.21-06-014, Southern California Edison Company (SCE) hereby submits its PSPS Post-Event Report for the December 9, 2023 de-energization event (Attachment A hereto).<sup>1</sup> Pursuant to the October 14, 2021 email ruling of ALJ Valerie Kao, SCE hereby provides the following link to access and download the attachments and appendices to its PSPS Post-Event Report: [on.sce.com/PSPSposteventreports](https://on.sce.com/PSPSposteventreports)

Respectfully submitted,  
ANNA VALDBERG  
ELENA KILBERG

*/s/ Elena Kilberg*

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<sup>1</sup> SCE’s request for a five business-day extension under Rule 16.6 of the Commission’s Rules of Practice and Procedure and D.21-06-014 was granted on December 26, 2023, extending the deadline to submit this PSPS Post-Event Report to January 9, 2024.

**Attachment A**

**SCE's PSPS Post-Event Report**



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Principal Manager  
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January 9, 2024

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

**SUBJECT: SCE PSPS Post Event Report – December 5, 2023, to December 16, 2023**

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 December 5, 2023 and concluded on December 16, 2023.

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:  
  
DDF376B774674B8...  
/s/ Marissa Blunski

Marissa Blunski  
Regulatory Affairs Principal Manager

cc: [ESRB\\_CompplianceFilings@cpuc.ca.gov](mailto:ESRB_CompplianceFilings@cpuc.ca.gov)

**Southern California Edison  
Public Safety Power Shutoff (PSPS) Post-Event Report  
December 9, 2023**

**Filed with: The California Public Utilities Commission  
Submitted to: Director of the Safety and Enforcement Division  
Dated: January 9, 2024**

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## Introduction

SCE submits this post-event report to address the de-energization event that started on December 05, 2023 at 1:37 pm and ended on December 16, 2023 at 8:00 am in Los Angeles, Riverside, San Bernardino, Kern, Tulare, Orange, and Ventura counties, and to demonstrate 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.21-06-034) and PSPS Order Instituting Investigation (OII) (D.21-06-014).<sup>1</sup> 5311 customers were de-energized during this event. 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.

SCE recognizes that proactive de-energizations pose significant challenges and hardships for our customers and the public safety partners that provide vital services to the affected communities. SCE’s decision to activate its PSPS protocol is based on careful consideration and weighing of multiple factors, including forecasted weather, fuel conditions, infrastructure vulnerabilities, and potential impacts of PSPS on public safety partners and the communities we serve.

SCE remains committed to continuously improving its PSPS processes and welcomes input from its customers, public safety partners, community representatives, and local governments on ways we can work together to minimize the impact of PSPS events on all stakeholders.

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<sup>1</sup> 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 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”).

## 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 have been restored.

On December 5, 2023, SCE's meteorologists identified the potential for dangerous fire weather conditions due to a persistent period of dry, gusty Santa Ana and offshore winds beginning on December 8, 2023 in portions of Los Angeles, San Bernardino, and Ventura counties. The dry air and gusty winds would create localized areas of elevated fire weather conditions across the mountains of Los Angeles County and Ventura County along with portions of the Inland Empire for the initial Period of Concern during this multi-phase PSPS event starting on December 8, 2023 through December 9, 2023. Given this forecast, SCE's meteorology and fire science experts consulted the Geographic Area Coordination Center (GACC)<sup>2</sup> for forecast alignment to evaluate potential fire weather impacts. The GACC agreed with SCE's forecast of elevated fire weather for this first Period of Concern of 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, and Ventura Counties during portions of the Period of Concern.

In response to this forecasted fire weather, SCE activated its dedicated PSPS Incident Management Team (IMT) on December 5, 2023 at 1:37 pm 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. On December 6, 2023, SCE's meteorologists identified additional fire weather concerns for Orange and Riverside counties, which extended the initial Period of Concern to December 10, 2023.

On December 10, SCE's meteorologists identified additional fire weather concerns for portions of Los Angeles, San Bernardino, and Ventura Counties for the second phase of this PSPS event, with a Period of Concern starting December 13<sup>th</sup> through December 14. On December 12, SCE's meteorologists identified additional fire weather concerns for portions of Kern, Los Angeles, Riverside, and Tulare Counties for the third phase of this PSPS event, with a Period of Concern starting December 15 through December 16. Real-time conditions on the morning of December 15 raised additional fire weather concerns for Orange County. However, actual observed conditions did not meet de-energization criteria during the second and third phases of this PSPS event, and no customers were de-energized after December 10.

Ultimately, SCE de-energized 5311 customers in Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties during the first phase of this PSPS event based on observed fire weather conditions.

This PSPS event concluded on December 16, 2023 at 8:00 am after fire weather conditions were no longer forecasted to impact the SCE service area; the IMT de-mobilized at on December 16.

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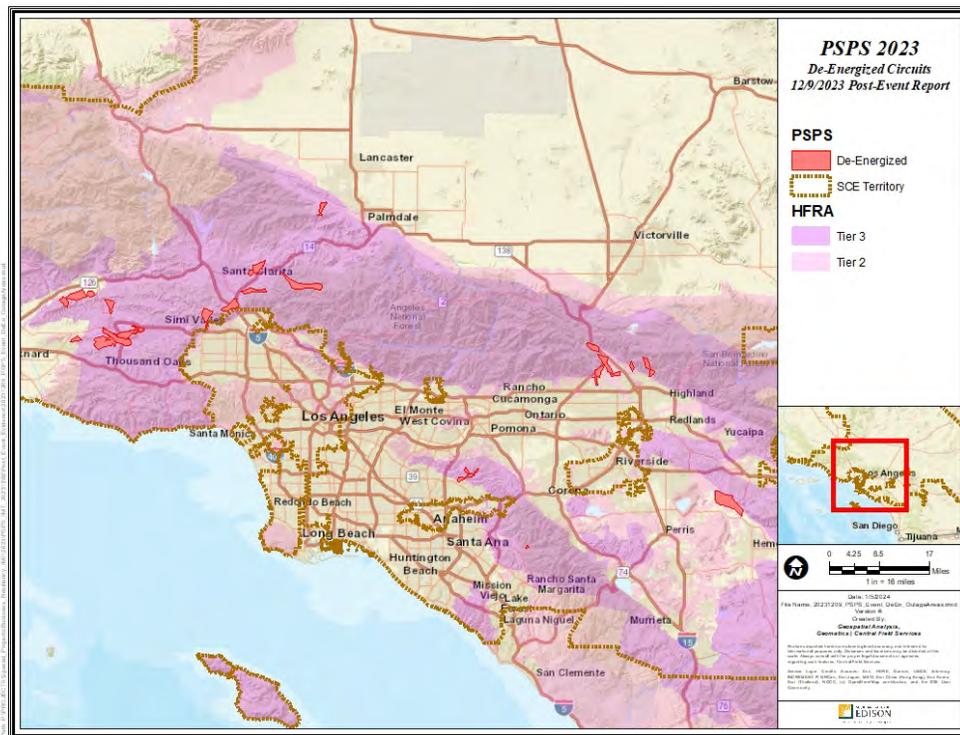
<sup>2</sup> The GACC is the physical location of an interagency, regional operation center for the effective coordination, mobilization, and demobilization of federal state and local wildland fire agencies through logistical coordination of resources throughout the geographic area, as well as with other geographic areas.

2. 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<sup>3</sup>

PSPS Event Summary										
Total Customers			De-energized				Number of Circuits			Damage/Hazard Count
PSPS Notified	De-energized	Cancelled	MBL Customers	Number of Counties	Number of Tribes	Critical Facilities and Infrastructure	Transmission De-energized	Distribution Circuits in Scope	Distribution Circuits De-energized	
120213	5311	115308	162	5	1	258	0	146	20	4

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



<sup>3</sup> 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.

## Section 2. Decision-Making Process

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

**Table 2: Factors Considered in decision to De-Energize<sup>5</sup> (Continued in Attachment C)**

Factors Considered in Decision to De-Energization									
Circuit De-energized	Sustained Wind Speed			Gust Wind Speed			Fire Potential Index (FPI)		Forecast Output Ratio
	Activation Threshold	De-energization Threshold	Actual	Activation Threshold	De-energization Threshold	Actual	Threshold	Actual	
ANTON	31.00	40.00	40.11	46.00	58.00	59.26	12	13.07	630.3280094
ATENTO	31.00	40.00	43.81	46.00	58.00	53.27	12	12.56	61.63539086
BALCOM	31.00	32.16	31.87	46.00	54.41	43.40	12	12.05	19.25069763
BLUE CUT	31.00	31.00	31.29	46.00	46.00	42.38	12	12.05	529.3484928
BRENNAN	31.00	31.00	28.86	46.00	46.00	46.84	12	12.12	53.73409833

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).<sup>6</sup> 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

<sup>4</sup> 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 in the FPI rating. 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.

<sup>5</sup> Actual sustained and gust wind speeds in Table 2 are recorded at the time the decision was made to begin the de-energization process and do not reflect peak wind and gust speeds observed during the Period of Concern (which could be higher). De-energization of a circuit generally occurs when either sustained wind de-energization threshold or gust wind de-energization threshold is met, in tandem with the circuit’s FPI threshold.

<sup>6</sup> SCE’s detailed technical paper, Quantitative and Qualitative Factors for PSPS Decision-Making, can be found at [https://download.newsroom.edison.com/create\\_memory\\_file/?f\\_id=609d61cbb3aed37d0f3d5f6a&content\\_verified=True](https://download.newsroom.edison.com/create_memory_file/?f_id=609d61cbb3aed37d0f3d5f6a&content_verified=True) and in Attachment B of this report.

harm to customers from the loss of power.

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

FPI is calculated using the following inputs:

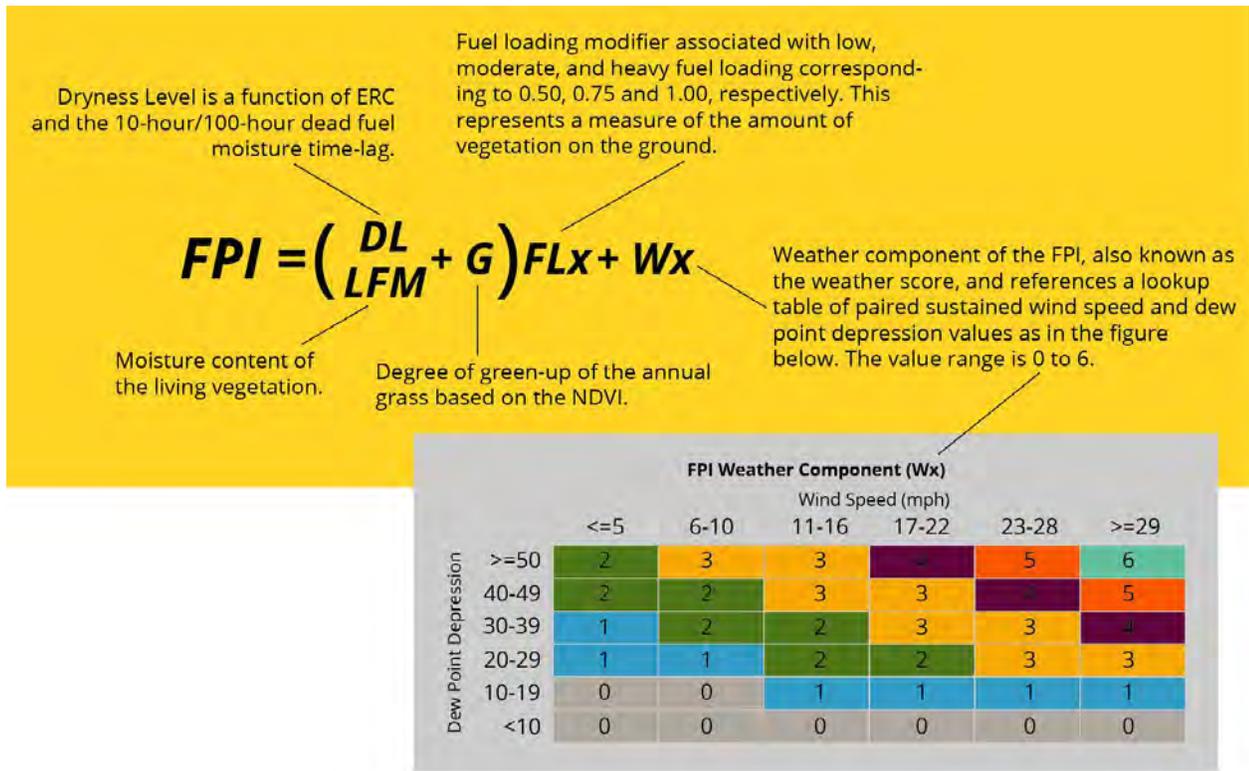
- Wind speed—Sustained wind velocity at 6 meters above ground level.
- Dew point depression—The dryness of the air as represented by the difference between air temperature and dew point temperature at 2 meters above ground level.
- Energy release component (ERC) — “The available energy (BTU) per unit 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.”<sup>7</sup>
- 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.”<sup>8</sup>

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<sup>7</sup> 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](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5339121.pdf).

<sup>8</sup> U.S. Department of the Interior. n.d. Landsat Normalized Difference Vegetation Index. Accessed April 14, 2021. [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](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).

Visual 1. Fire Potential Index Equation<sup>9</sup>



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.<sup>10</sup> Exceptions where the FPI threshold continued to be set at 12 include:

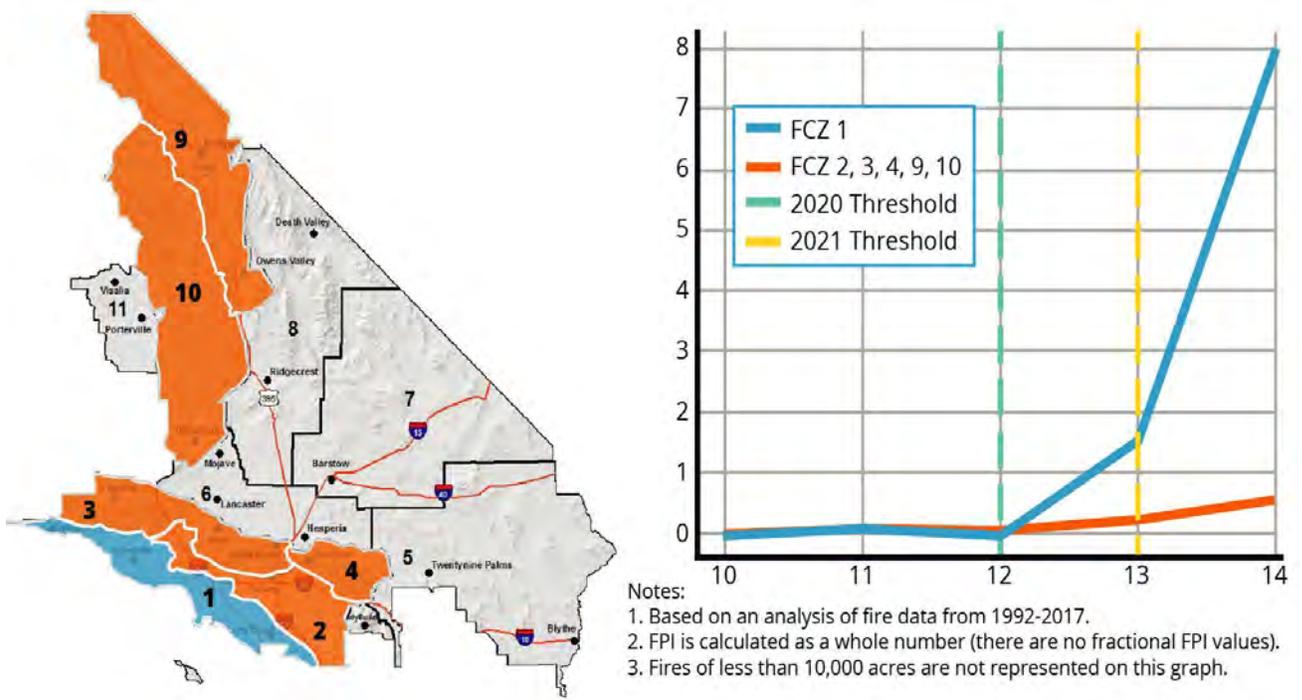
- Fire Climate Zone 1 (FCZ1) (Coastal region) — The threshold for FCZ1 is staying at 12 because probability calculations indicated a significantly higher ignition risk factor at an FPI threshold of 13 for this FCZ than for the other FCZs (2, 3, 4, 9 and 10). (Figure 2)
- Geographic Area Coordination 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.

<sup>9</sup> Fire Potential Index adapted from San Diego Gas & Electric ([https://www.sdge.com/sites/default/files/regulatory/SDGE\\_Fire\\_Prevention\\_Plan\\_2018.pdf](https://www.sdge.com/sites/default/files/regulatory/SDGE_Fire_Prevention_Plan_2018.pdf), pages 25-27) and modified to serve SCE’s needs, including the insertion of the Live Fuel Moisture variable.

<sup>10</sup> 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.

Further details about AOCs can be found in SCE's Wildfire Mitigation Plan.<sup>11</sup>

Visual 2. Probability of Wind-Driven Fires at 10,000 Acres at FPI 12 and 13<sup>12</sup>



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.

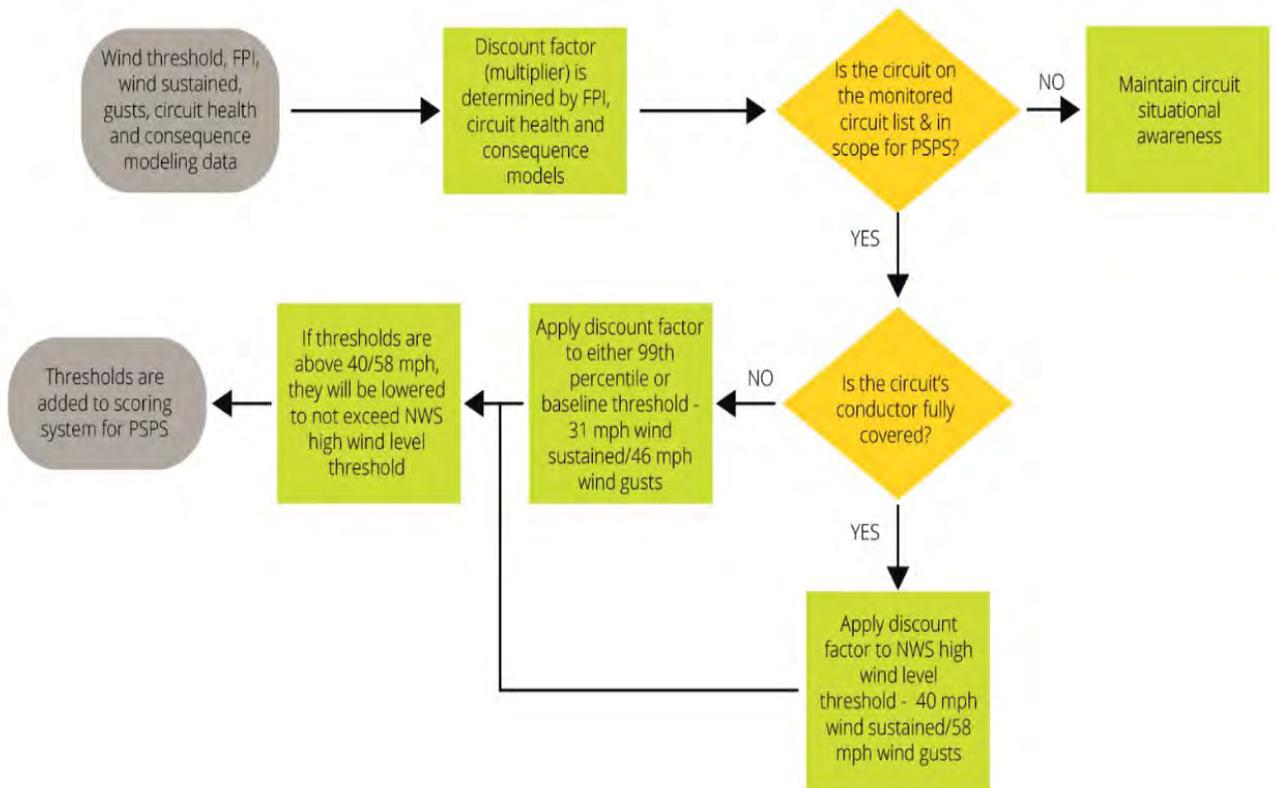
For each PSPS event, every circuit also has a de-energization threshold. De-energization thresholds are determined separately for each circuit to prioritize circuits for de-energization based on the specific risks of the event. This is particularly important for large events where many circuits must be evaluated simultaneously. 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.

<sup>11</sup> SCE's 2022 Wildfire Mitigation Plan Update dated February 18, 2023.

<sup>12</sup> Based on back cast FPI calculation.

Visual 3. PSPS Decision-Making Flowchart/Diagram



If actual conditions suggest more risk, or in complex, 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. During the December 9, 2023 PSPS event, the Incident Commander, in consultation with Operations and SCE meteorologists, authorized de-energization on some circuits prior to observed windspeeds and/or FPI exceeding preset thresholds based on the potential threat posed by rapidly escalating fire weather conditions and event complexities (e.g., size of the event, many circuits approaching threshold simultaneously). This applied to the Balcom, Cal State, Energy, Huckleberry, and Sutt circuits.

Conversely, de-energization thresholds are raised for segments or circuits that have had covered conductor installed. The de-energization threshold for segments or circuits with covered conductor is 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 3: Circuit Thresholds (Continued in Attachment C)**

Circuit Thresholds					
Circuit	FPI Threshold Rating	Wind Speed Activation Thresholds		De-Energization Thresholds	
		Sustained Wind	Gust Wind	Sustained Wind	Gust Wind
ACADEMY	12	31.00	46.00	33.14	47.47
ACOSTA	13	31.00	46.00	36.00	52.20
ALLVIEW	12	31.00	46.00	31.00	46.00
ALPINE	12	31.00	46.00	31.00	46.00
ANGUS	12	31.00	46.00	31.00	46.00

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

- Wind: Wind gusts of 35 to 60 mph were forecast for Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties during this event, with isolated areas of higher gusts up to 85 mph. Peak observed wind speeds in areas of concern were 56 mph sustained and 79 mph gusts during this event. Wind gusts of 40 to 50 mph were forecast for Kern and Tulare Counties, with isolated areas of higher gusts. Although relatively dry and windy conditions were observed for Kern and Tulare Counties, de-energization was not necessary in these counties because elevated wind speeds did not coincide with elevated FPI during the Period of Concern (i.e., PSPS criteria were not met for this event).
- Relative humidity: Relative humidity during this event was forecast to be between 10% and 20% across Kern, Los Angeles, Orange, Riverside, San Bernardino, Tulare, and Ventura Counties concurrent with the strong winds. Actual observed relative humidity ranged from 9% to 14% during this event. As discussed 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 proactive de-energization as a measure of last resort when all other alternatives to de-energization have been exhausted. The decision to de-energize customers during this PSPS event was based on considering and weighing the quantitative and qualitative factors detailed below:

- Consultation with the GACC regarding the potential for elevated fire weather within the SCE service territory during the Period of Concern. The GACC agreed with SCE’s forecast of elevated fire weather potential for the areas of concern during the first Period of Concern. However, for the remaining Period of Concerns, the GACC did not have concern for significant fire potential due to the localized nature of the remaining periods.

- 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 weather stations and publicly available weather stations during the Period of Concern to inform actual de-energization decisions.
- Fire spread modeling to identify areas having the greatest potential for significant fire activity. Results of this modeling by SCE identified the potential for fire in the one thousand (1,000) to five thousand (5,000)-acre range with isolated to scattered ten thousand (10,000)-acre potential throughout the areas of concern during the December 9, 2023 PSPS event.
- 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. De-energization thresholds were approached or exceeded on 20 circuits during this event as detailed in Table 2: Factors Considered in De-Energization in Section 2-1. See also Section 2-2 for additional details.
- National Weather Service-issued watches and warnings for certain areas of concern in SCE service territory. There were Red Flag Warnings issued for Los Angeles, Riverside, San Bernardino, and Ventura Counties. High Wind Warnings and/or Wind Advisories were issued for Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties during this PSPS event.

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

- Weather modeling for the areas of concern. SCE’s meteorologists indicated elevated fire weather conditions would remain below wind and FPI thresholds, and no fire weather conditions were forecasted after December 16.
- Observed wind speeds and FPI ratings. Observed wind and FPI ratings for all circuits in scope no longer met de-energization threshold criteria.

**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.<sup>13</sup>

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<sup>13</sup> 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 FireCast) and are subject to being updated as the modeling improves.

Inputs into this Tool include, among others, in-event weather, and wildfire simulation models, as well as circuit specific data. The results of the analysis are displayed in the Central Data Platform and 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 the output of the Tool to assess the risk versus the benefit of de-energization on a circuit-by circuit basis.

The comparative PSPS and wildfire risk estimates are based on the following circuit-specific criteria and information:

- **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.
- **Wildfire Risk:** Wildfire simulations (using Technosylva FireCast<sup>14</sup> 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.

This information is used to calculate potential Safety, Financial, and Reliability impacts (or attributes) of: (1) a wildfire and (2) a proactive de-energization event, as summarized in the table below:

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<sup>14</sup> 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. FireCast is specifically designed to forecast ignition risk associated with electric utility assets over a 3-day horizon based on expected short-term weather conditions.

Risk Attribute	Wildfire Consequences	PSPS Consequences
<b>Safety</b>	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. <sup>14</sup> 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.
<b>Reliability</b>	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.
<b>Financial</b>	SCE calculates the financial impact of wildfire by assigning a dollar value to the buildings and 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. <sup>15</sup>	SCE conservatively assumes \$250 <sup>16</sup> per customer, per de-energization event to quantify potential financial 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, 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.

SCE quantifies the resulting PSPS risks and wildfire risks using natural unit consequences for each risk type or attribute—structures impacted, acres burned, customer minutes interrupted, serious injuries and fatalities, etc. “Safety” risk is expressed as an index, “Reliability” risk is measured in terms of customer minutes interrupted (CMI), and “Financial” risk is measured in dollar amounts.

SCE then applies a Multi-Attribute Risk Score (MARS) framework to convert these natural unit consequences to unitless risk scores—one score for PSPS risks and one score for wildfire risks.<sup>15</sup> These risk scores are compared 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), yielding a benefit/risk ratio for each circuit in scope of the PSPS event. If the resulting ratio is equal to 1, the risks are equivalent. If the ratio is greater than one, the wildfire risk exceeds the PSPS risk (the higher the resulting number, the more the wildfire risk outweighs the PSPS risk). If the ratio is less than 1, the PSPS risk outweighs the wildfire risk.

The table below displays circuit-specific inputs—such as the number of customers on a circuit, AFN/NRCI multiplier, number of acres and buildings potentially threatened—which are used to calculate the PSPS and wildfire risk scores (shown in columns titled “PSPS Risk” and “Wildfire Risk”) and drive the final output of the Tool. These risk scores are then compared in the last column (highlighted in yellow) titled “FireCast 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 “FireCast Output Ratio” column for 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.

**Table 4: PSPS Risk vs. Benefit Comparison Tool (Continued in Attachment C)<sup>16</sup>**

PSPS Risk vs. Benefit Comparison Tool										
Circuit	All Customers	Population	AFN/NRCI Multiplier	24 Hour CMI (24 x 60)	Firecast Acres	Firecast Buildings	Firecast Population	PSPS Risk (24 hr Impact-PSPS Model)	Wildfire Risk (24hr Impact-PSPS Model)	Firecast Output Ratio
ACADEMY	38	114	1.13404624	1440	1774.7	137	485	0.000007978	0.013607463	1705.716044
ACOSTA	1329	3987	1.24804107	1440	5033.3	641	2170	0.000281334	0.063492291	225.682809
ANGUS	1602	4806	1.27559891	1440	7459.2	95	284	0.000339804	0.010446946	30.74403831
ANTON	299	897	1.21134165	1440	5408.8	400	1082	0.000063126	0.039790205	630.3280094
APPLETON	2187	6561	1.06867904	1440	349.64	129	427	0.000456932	0.013045743	28.55073493

<sup>15</sup> 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

<sup>16</sup> Circuits in Table 4 marked as N/A are considered “downstream” circuits, meaning they are connected to the circuits in scope for potential de-energization but are not evaluated for fire risk separately from their “parent” circuits. The total PSPS Risk for the downstream circuits was accounted for in the parent circuit PSPS Risk vs. Benefit calculation.

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 but one of the circuits in scope for potential de-energization during this event<sup>17</sup> had a PSPS benefit/risk ratio greater than 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 de-energized areas; PSPS last resort analysis.**

SCE deploys a suite of wildfire 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).<sup>18</sup> In addition, SCE has implemented operational practices including enhanced inspections, vegetation management, and fire climate zone operating restrictions<sup>19</sup> in high fire risk areas. Certain protective measures such as fast curve settings and fire climate zone operating restrictions are applied to a majority of high fire risk circuits 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.<sup>20</sup> 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, the deployment of the above-described less disruptive measures may not sufficiently mitigate wildfire and public safety risk, and PSPS is necessary as a last resort mitigation measure 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.

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<sup>17</sup> The table showing the results of the PSPS Risk vs. Benefit Comparison Tool includes ratios for all circuits on the monitored circuit list 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. Although the ratio(s) shown for the circuit(s) in scope supported a potential de-energization for all circuits in scope, SCE ultimately needed to de-energize only 20 circuits based on actual conditions during the Period of Concern. One circuit, the Idle-Victor-Calectric No. 2, did not have available FireCast Modeling data available. This circuit was not de-energized during this PSPS event and SCE is reviewing its exclusion and will correct for any subsequent events.

<sup>18</sup> 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 Wildfire Mitigation Plan Update, initiative SH-6.

<sup>19</sup> 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.

<sup>20</sup> In this event, 51 circuits in scope for potential de-energization had either fully or partially installed covered conductor and thus higher windspeed thresholds. Of these 51 fully or partially covered circuits, only 20 had to be de-energized during this PSPS event.

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 any imminent hazards or equipment vulnerabilities that require immediate remediation and provide additional up-to-date intelligence on field conditions. If such 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 the 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 any circuit segment or subset of customers that could safely be transferred from a circuit that is expected to exceed thresholds to another adjacent circuit that is not. For this event, SCE was able to transfer approximately 6,711 customers on 10 circuits to adjacent circuits to mitigate any potential customer impacts if a de-energization became necessary.

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. During this PSPS event, 20 circuits met FPI criteria for de-energization at the time the sustained or gust wind de-energization thresholds were approached or exceeded. Therefore, SCE ultimately de-energized 5311 customers on these circuits. See Section 10 for additional details regarding SCE's mitigation efforts for this event.

### **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 December 5, 2023 1:37 pm and ended for all circuits in scope on December 16, 2023 at 8:00 am. Service was restored to all de-energized customers by December 11, 2023 9:28 am. This event encompassed impacted circuits in Los Angeles, Orange, Riverside, San Bernardino, 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 all 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.<sup>21</sup>

- County
- De-energization date/time
- Restoration date/time
- “All Clear” declaration date/time<sup>22</sup>
- 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-energized<sup>23</sup>
- Residential customers de-energized
- Commercial/Industrial customers de-energized
- Medical Baseline (MBL) customers de-energized
- AFN other than MBL customers de-energized<sup>24</sup>
- Other Customers
- Distribution or transmission classification

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<sup>21</sup> In accordance with the Commission’s post-event reporting template, Table 5 below 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. In addition, on 2 circuits (Rejada and Steel), SCE temporarily restored power to customers during extended breaks in fire weather conditions, meaning that impacted customers on these circuits were not continuously de-energized between first de-energization date/time and final restoration date/time.

<sup>22</sup> 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 restoration of 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.

<sup>23</sup> 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.

<sup>24</sup> 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.

**Table 5: Circuits De-Energized (Continued in Attachment C) <sup>25</sup>**

Circuits De-Energized									
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
VENTURA	ANTON	12/09/23	10:05	12/10/23	13:08	12/10/23	15:29	T3	Distribution
ORANGE	ATENTO	12/09/23	23:51	12/10/23	7:07	12/10/23	9:52	T3	Distribution
VENTURA	BALCOM	12/09/23	8:57	12/10/23	12:40	12/10/23	13:53	Non HFRA, T3, T2	Distribution
SAN BERNARDINO	BLUE CUT	12/10/23	6:37	12/10/23	13:12	12/10/23	15:49	T3, T2	Distribution
VENTURA	BRENNAN	12/09/23	9:09	12/10/23	2:39	12/10/23	8:00	T3	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	Total customers De-energized	GO 95, Tier HFTD Tier(s) 1,2,3	Other Customers
VENTURA	ANTON	43	8	2	5	51	T3	0
ORANGE	ATENTO	20	7	0	1	27	T3	0
VENTURA	BALCOM	5	0	0	0	5	Non HFRA, T3, T2	0
SAN BERNARDINO	BLUE CUT	15	8	0	3	23	T3, T2	0
VENTURA	BRENNAN	439	27	17	43	466	T3	0

## 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 the table.

### 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.<sup>26</sup>

<sup>25</sup> 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.”

<sup>26</sup> Hazards are conditions discovered during restoration patrolling or operations that might have caused damages or posed an electrical arcing or ignition risk had PSPS not been executed.

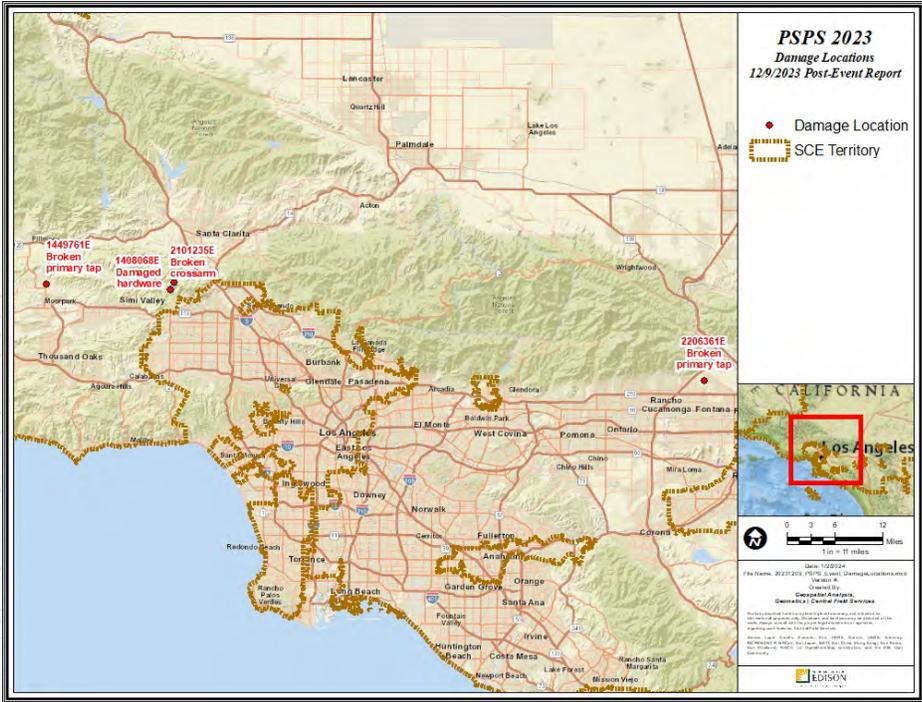
**Table 6: Damage and Hazards**

Damage and Hazards				
Circuit Name	County	Structure Identifier	Tier 2/3 or Non-HFTD	Type and Description of Damage
Anton	Ventura	1449761E	Tier 3	Broken primary tap
Energy	Los Angeles	1408068E	Tier 3	Damaged hardware
Energy	Los Angeles	2101235E	Tier 3	Broken crossarm
Firebird	San Bernardino	2206361E	Tier 2	Broken primary tap

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 all information in Section 3.3 is included with this filing.

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 community<sup>27</sup>, 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 ensure they receive priority notifications. All multi-family building SCE account holders receive customer notifications. In its customer notification, SCE directs potentially impacted customers to [www.sce.com/pmps](http://www.sce.com/pmps) 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.

Notification Descriptions		
Type of Notification	Recipients	Description <sup>28</sup>
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).

<sup>27</sup> SCE notifies multi-family building account holders in the ordinary course 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 PPS-related outreach via flyers and trade publications to increase awareness of PPS 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 PPS alerts for specific addresses.

<sup>28</sup>SCE makes every effort to adhere to the notification timelines required by the CPUC. However, notifications may be delayed in some circumstances due to the sudden onset of dangerous fire weather that was not forecasted or when such weather conditions manifest earlier than predicted by the forecast.

Notification Descriptions		
Type of Notification	Recipients	Description <sup>28</sup>
<b>Update</b>	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).	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.
	Other Customers (including multi-family building account holders).	
<b>Expected Shutoff</b>	Public Safety Partners and all 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 shutoff expected soon (1-4 hours before potential de-energization).
	Other Customers (including multi-family building account holders).	
<b>Shutoff</b>	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).	
<b>Prepare to Restore</b>	Public Safety Partners and Critical Facilities & Infrastructure Customers (including local and Tribal governments, Community Choice Aggregators, hospitals, water/wastewater and telecommunications providers,	Inspection/patrols of de-energized circuits for PSPS restoration has begun and power will be restored shortly.

Notification Descriptions		
Type of Notification	Recipients	Description <sup>28</sup>
	<p>CBOs and paratransit agencies serving the AFN community).</p> <p>Other Customers (including multi-family building account holders).</p>	
<b>Restored</b>	<p>Public Safety Partners and Critical Facilities &amp; Infrastructure (including local and Tribal governments, Community Choice Aggregators, hospitals, water/wastewater and telecommunications providers, CBOs and paratransit agencies serving the AFN community).</p> <p>Other Customers (including multi-family building account holders).</p>	Power has been restored.
<b>Restored-Not All Clear</b>	<p>Public Safety Partners and Critical Facilities &amp; Infrastructure Customers (including local and Tribal governments, Community Choice Aggregators, hospitals, water/wastewater and telecommunications providers, CBOs and paratransit agencies serving the AFN community).</p> <p>Other Customers (including multi-family building account holders).</p>	Power has been temporarily restored, PSPS risk still remains.
<b>Event Avoided-All Clear<sup>29</sup></b>	<p>Critical Facilities &amp; Infrastructure (including Community Choice Aggregators, hospitals, water/wastewater, and telecommunications providers).</p> <p>Other Customers (including multi-family building account holders).</p>	PSPS event cancelled-no de-energization expected.

<sup>29</sup> SCE makes every effort to notify customers, public safety partners, and other impacted entities within two hours of a decision to cancel an anticipated de-energization event or to remove from scope. When the Period of Concern is over for a circuit or a circuit segment originally in scope and after the circuit is removed from the Monitored Circuit List, SCE sends an “Event Avoided-All Clear” cancellation notification to impacted entities and customers that had been notified of a potential de-energization, but not de-energized. Because weather conditions can change unexpectedly, SCE is not always able to make a final decision that notified customers will not experience de-energization until an “All Clear” declaration has been issued for all circuits in scope for the PSPS event.

Notification Descriptions		
Type of Notification	Recipients	Description <sup>28</sup>
<b>Event Concluded-All Clear</b>	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 is concluded, and no further de-energization expected.

- 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.

- 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 of any unsuccessful positive notifications.**

**Table 8: Positive Notification<sup>30</sup>**

Positive Notification					
Category	Total Number of Customers	Timing of Attempts	Notification Attempts	Successful Positive Notification	Who made the notification
Medical Baseline	3225	DAILY	3307	3225	SCE
Self Certified	227	DAILY	259	227	SCE

**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 all 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 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 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.

<sup>30</sup> The “Total Number of Customers” metric reflects the total number of MBL and Self-Certified customers in scope for the PSPS event. Although SCE attempts to notify all MBL and Self-Certified customers in scope, only customers who are ultimately de-energized “need” positive pre-event PSPS notifications.

The “Notification Attempts” metric reflects the count of MBL and Self-Certified customers – both in scope and de-energized – 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.

**Table 9: Breakdown of Notification Failure**

<b>Breakdown of Notification Failures</b>			
<b>Notifications sent to</b>	<b>Notification Failure Description</b>	<b>Number of Entities or Customer Counts</b>	<b>Explanation</b>
<b>Public Safety Partners excluding Critical Facilities and Infrastructure</b>	<b>Entities who did not receive 48-to 72-hour advance notification.</b>	1	1 notification was sent to an entity using the most up-to-date contact information on file but was not delivered for unknown reasons.
	<b>Entities who did not receive 1-4-hour imminent notification.</b>	8	Missed due to rapidly escalating weather conditions that required immediate de-energization. Notifications were sent, but less than 1 hour before de-energization.
	<b>Entities who did not receive any notifications before de-energization.</b>	27	Not forecasted in scope prior to de-energization. Rapidly escalating weather conditions required immediate de-energization.
	<b>Entities who were not notified immediately before re-energization.</b>	34	System/operational failure (please see detailed explanation in Section 5-6 and Lessons Learned below)
	<b>Entities who did not receive cancellation notification within two hours of the decision to cancel.</b>	0	
<b>Critical Facilities and Infrastructure</b>	<b>Facilities who did not receive 48-72-hour advance notification.</b>	30	11 notifications were sent using the most up-to-date contact information on file but were not delivered for unknown reasons.  19 not forecast in scope within 48-72 hours.
	<b>Facilities who did not receive 1-4 hour of imminent notifications.</b>	110	108 notifications missed due to rapidly escalating weather conditions that required immediate de-energization. Notifications were sent, but less than 1 hour before de-energization.  2 notifications were sent using the most up-to-date

Breakdown of Notification Failures			
Notifications sent to	Notification Failure Description	Number of Entities or Customer Counts	Explanation
			contact information on file but were not delivered for unknown reasons.
	<b>Facilities who did not receive any notifications before de-energization.</b>	2	Notifications were sent using the most up-to-date contact information on file but were not delivered for unknown reasons.
	<b>Facilities who were not notified at de-energization initiation.</b>	2	Notifications were sent using the most up-to-date contact information on file but were not delivered for unknown reasons.
	<b>Facilities who were not notified immediately before re-energization.</b>	7	2 notifications were sent using the most up-to-date contact information on file but were not delivered for unknown reasons.  5 notifications were not sent due to system/operational failure (please see detailed explanation in Section 5-6 and Lessons Learned below)
	<b>Facilities who were not notified when re-energization is complete.</b>	2	Notifications were sent using the most up-to-date contact information on file but were not delivered for unknown reasons.
	<b>Facilities who did not receive cancellation notification within two hours of the decision to cancel.</b>	98	Notifications were sent using the most up-to-date contact information on file, but were not delivered for unknown reasons.
<b>All other affected customers</b>	<b>Customers who did not receive 24-48-hour advance notifications.</b>	428	301 customers not forecasted in scope at 24 hours. Notifications were sent but less than 24 hours before de-energization.

Breakdown of Notification Failures			
Notifications sent to	Notification Failure Description	Number of Entities or Customer Counts	Explanation
			127 notifications were sent using the most up-to-date contact information on file but were not delivered for unknown reasons.
	<b>Customers who did not receive 1-4-hour imminent notifications.</b>	2407	2285 notifications missed due to rapidly escalating weather conditions that required immediate de-energization. Notifications were sent, but less than 1 hour before de-energization.  122 notifications were sent using the most up-to-date contact information on file but were not delivered for unknown reasons.
	<b>Customers who did not receive any notifications before de-energization.</b>	410	396 notifications were sent using the most up-to-date contact information on file but were not delivered for unknown reasons.  14 customers not forecasted in scope prior to de-energization. Rapidly escalating weather conditions required immediate de-energization.
	<b>Customers who were not notified at de-energization initiation.</b>	591	591 notifications were sent using the most up-to-date contact information on file but were not delivered for unknown reasons.
	<b>Customers who were not notified immediately before re-energization.</b>	620	574 notifications were sent using the most up-to-date contact information on file but were not delivered for unknown reasons.  46 notifications missed due to system/operational failure (please see detailed

Breakdown of Notification Failures			
Notifications sent to	Notification Failure Description	Number of Entities or Customer Counts	Explanation
			explanation in Section 5-6 and Lessons Learned below)
	<b>Customers who were not notified when re-energization is complete.</b>	456	456 notifications were sent using the most up-to-date contact information on file but were not delivered for unknown reasons.
	<b>Customers who did not receive cancellation notification within two hours of the decision to cancel.</b>	2317	2203 notifications were sent using the most up-to-date contact information on file but were not delivered for unknown reasons.  114 notifications were sent outside the 2-hour window due to system/operational failure (please see detailed explanation in Section 5-6 and Lessons Learned below)

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

Evolving weather conditions complicated notification release timing for advance notifications (48-72-hour, 24-48 hour) and imminent notifications (1-4 hour). SCE uses real-time weather conditions to determine when these notifications should be sent. SCE continues to explore opportunities to expand its machine learning weather forecast capabilities to improve forecast accuracy however, there are times where unforeseen circumstances prevent on-time notifications.

Missed notifications due to system and operational issues will be reviewed to determine root causes and make corrections to improve notification accuracy. See Section 11: Lessons Learned for additional details.

For notifications sent but undelivered, SCE is working with its notification vendors to determine what caused the delivery failures (e.g., invalid contact information, server errors, customer blocked SCE as sender) and will work to minimize these notification issues in the future.

SCE remains committed to making all reasonable efforts to provide notifications to all impacted customers and public safety partners during PSPS events.

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

Missed/Insufficient Notification:

Please see Table 9 and Section 5-6 above for information on missed or insufficient notification during this event.

Incorrect Notification:

SCE is aware of four instances where incorrect notifications were sent during this event:

- 159 customers received cancellation notices without receiving any prior notification of potential de-energization. These customers were not in scope for the PSPS event and were never de-energized. This was due to an error in processing notification release.
- 772 customers inadvertently received restoration notifications in error. These customers were not de-energized as they had been switched to an adjacent circuit as part of mitigation efforts prior to the event. This was due to an error in providing operational devices for system configuration during the processing of notification release.
- 2263 customers inadvertently received restoration notifications in error. Public Safety Partners in Kern County also received a cancellation notification. These were due to an error in processing notification release.

See Section 11: Lessons Learned for additional details and SCE's next steps to address these erroneous notifications.

Cancellation Notification:

- SCE sent cancellation notices to 113,575 customers that were notified of potential de-energization but not ultimately 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 forecasted 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 affected by 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. 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.**

SCE provided geospatial information and real-time updates to GIS shapefiles via 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 [www.sce.com/psps](http://www.sce.com/psps) 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 December 5, 2023 at 1:37 pm. 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. Surveys were sent to 271 State and County emergency management agencies and critical infrastructure customers in scope for this PSPS event. Nine (9) partners responded to this survey. Of the nine (9) respondents, 22% rated POOR, 22% rated FAIR, 22% rated GOOD and 33% rated EXCELLENT

Some county emergency management partners suggested that SCE undertake efforts to optimize the content and delivery of the daily briefings that are provided to Operational Area partners and to assess if additional restoration details can be provided during events. SCE will engage CalOES and other stakeholders to discuss potential opportunities to improve the external

briefings for the 2024 PSPS season.

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

SCE provided notification of this PSPS de-energization event to the 211 California Networks, Regional Centers, Independent Living Centers, and American Red Cross chapters that serve their respective counties. SCE contacted the Community-Based Organizations (CBOs) serving Los Angeles, and Ventura County on December 5, 2023 to alert them to potential PSPS outages in those areas. Similarly, SCE contacted the CBOs serving San Bernardino, Riverside, Orange on December 6, 2023, and CBOs serving Kern and Tulare Counties on December 12, 2023 as these additional counties came into scope. SCE maintained communication via daily coordination calls with these CBOs throughout the PSPS event and 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 direct services to AFN customers such as lodging, food support, or transportation. Other needs were supported through our new in-event battery loan pilot that is available to affected customers with access and functional needs.

**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 13 mobile generators for use by critical facilities and infrastructure customers during PSPS events, as needed. SCE has contracts with vendors to lease additional units during emergency events when the need arises for critical care customers.

**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 20-500 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 before and during the PSPS.**

N/A. No critical facilities or infrastructure customers requested backup generation as such SCE did not deploy any backup generation to critical facility and infrastructure customers during this de-energization event.

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

N/A. No critical facilities and infrastructure customers requested backup generation; as such, SCE did not deploy any back-up generation to critical facility and infrastructure customers during this de-energization event.

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

N/A. No critical facilities and infrastructure customers requested backup generation; as such, SCE did not deploy any back-up generation to critical facility and infrastructure customers during this de-energization event.

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

N/A. No critical facilities and infrastructure customers requested backup generation; as such, SCE did not deploy any back-up generation to critical facility and infrastructure customers during this de-energization event.

Any questions related to the information under this item may be directed to SCE at the following e-mail address: [SCEBCDCustomersupport@sce.com](mailto:SCEBCDCustomersupport@sce.com).<sup>31</sup>

## 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 66 reported complaints and one claim associated with this PSPS event. SCE will include any complaints or claims related to this PSPS event received after the filing of date of this report in its annual post-season report (which will also provide additional details on the complaints).

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<sup>31</sup> Although there is no designated contact person for questions, this e-mail inbox is monitored by SCE's Business Customer Division.

**Table 12: Count and Nature of Complaints Received**

<b>Count and Nature of Complaints Received</b>	
<b>Nature of Complaints</b>	<b>Number of Complaints</b>
<b>PSPS Frequency/Duration</b> 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.	6
<b>Safety/Health Concern</b> 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	2
<b>Communications/Notifications</b> 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)	3
<b>Outreach/Assistance</b> 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	1
<b>General PSPS Dissatisfaction/Other</b> 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.	54
<b>Total</b>	<b>66</b>

**Table 13: Count and Type of Claims Received**

<b>Count and Type of Claims Received</b>	
<b>Description of Claims</b>	<b>Number of Claims</b>
<b>Food loss only</b>	1
<b>Property Damage</b>	0
<b>Food loss and property damage</b>	0
<b>Evacuation Cost</b>	0
<b>Business Interruption / Economic Loss</b>	0
<b>Unspecified</b>	0
<b>Total</b>	<b>1</b>

## 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 as soon as fire weather conditions began to subside, and the Incident Commander approved restoration operations. SCE had pre-positioned qualified restoration personnel to reduce restoration patrol times and customer outage duration. All circuit restoration during this event was guided by safety considerations, including safety risks associated with patrolling certain circuits at night. The Incident Commander made the decision to restore customers based on a recommendation from Operations and input from Weather Services regarding observed improvement in weather conditions.

1,868 customers on the Donlon, Hillfield, and Vera Cruz circuits were re-energized on Tuesday December 9<sup>th</sup> by 6:36 pm. The Incident Commander made the decision to restore these customers based on a recommendation from Operations and input from Weather Services based on observed improvement in weather conditions.

3,400 customers on the Anton, Atento, Balcom, Blue Cut, Brennan, Calgrove, Calstate, Firebird, Huckleberry, Mamba, Morganstein, Northpark, Rejada, Steel, and Sutt circuits were re-energized on Wednesday December 10 by 6:25 pm.

On Wednesday December 10, the Energy and Sand Canyon circuits were initially released for restoration by the Incident Commander, but patrols were delayed until they could be safely conducted during daylight hours. On Thursday December 11, 43 customers on the Energy and Sand Canyon circuits were re-energized by 9:28 am. All customers de-energized during the December 9, 2023 PSPS event were restored as of December 11.

- 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.**

**Table 14: Circuits Requiring More Than 24 Hours to Restore**

No circuits required more than 24 hours to restore.

## 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).**

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

Community Resource Centers				
Address	Location Type	Describe the assistance available	Hours of Operations <sup>1</sup> (Date / Time)	Number of Visitors
Acton Agua Dulce Library 33792 Crown Valley Rd. Acton, 93510	CRC - Indoor	Small portable device charging (such as a cell phone, laptop, and small medical devices), seasonal heating and cooling, ice vouchers or ice, water, snacks, blankets, and wood as needed, and customer resiliency kits	12/09 10am - 6pm	13
Acton Community Center 3748 Nickels St. Acton, 93510	CRC - Indoor	Small portable device charging (such as a cell phone, laptop, and small medical devices), seasonal heating and cooling, ice vouchers or ice, water, snacks, blankets, and wood as needed, and customer resiliency kits	12/10 8am - 8pm	6
Las Palmas Park 505 S. Huntington St. San Fernando, 91340	CRC - Indoor	Small portable device charging (such as a cell phone, laptop, and small medical devices), seasonal heating and cooling, ice vouchers or ice, water, snacks, blankets, and wood as needed, and customer resiliency kits	12/09 8am - 10pm  12/10 8am - 8pm	4
Hampton Inn 25259 The Old Rd. Stevenson Ranch, 91381	CRC - Indoor	Small portable device charging (such as a cell phone, laptop, and small medical devices), seasonal heating and cooling, ice vouchers or ice, water, snacks, blankets, and wood as needed, and customer resiliency kits	12/09 8am - 10pm  12/10 8am - 10pm  12/11 8am - 11am	0
Library of the Canyons 7531 E. Santiago Canyon Rd. Silverado, 92676	CCV	Small portable device charging (such as a cell phone, laptop, and small medical devices), seasonal heating and cooling, ice vouchers or ice, water, snacks, blankets, and wood as needed, and customer resiliency kits	12/09 8am - 10pm  12/10 8am - 7pm	9

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

This was a multi-phase PSPS event: December 8 through December 10, December 13 through December 14, and December 15 through December 16. SCE deployed a total of 19 CRCs/CCV to provide community assistance to various locations impacted by this event.

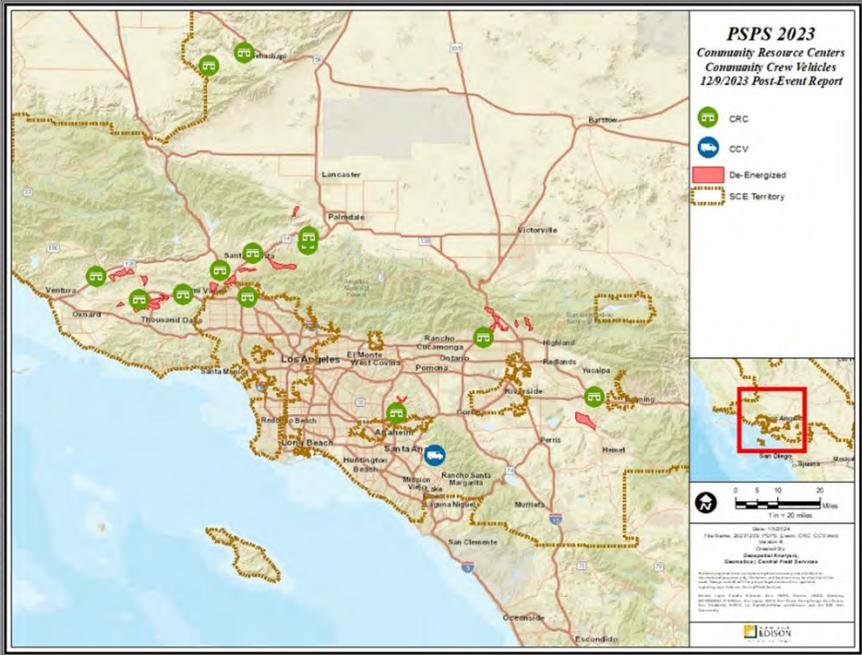
During the first phase of the event (December 8 through December 10), SCE deployed 11 CRCs/CCV to Los Angeles, Orange, Riverside, San Bernardino and Ventura counties. Details of these resources are available in table 15. SCE activated two different CRC facilities in Acton because the contracted site, the Acton Community Center, had a holiday event on December 9. SCE’s Liaison Officer worked with Los Angeles County to identify an alternate site, the Acton Agua Dulce Library to support customers on December 9; the hours of operation for this CRC

followed the library's, a government site, hours of operation which were 10 am to 6 pm. SCE had to close the Santa Paula Community Center site in Ventura County early as a result of the South Fire that began early in the day on December 9. SCE had activated two additional sites in Ventura for this event which helped mitigate the early closing of the Santa Paula site. The Yorba Linda and Library of the Canyon sites in Orange County closed at 5 pm and 7pm on December 10, respectively, as there was no longer a need for these CRCs after all customers in those areas had been restored. Six of the seven remaining sites opened on December 10 to support customers were closed at 8 pm after the POC had passed and all Residential customer load was restored. One site in Los Angeles County remained open until 10 pm and reopened on December 11; this site was kept open until 11 am and closed after all customer load was restored in this county. Details of these hours of operations are available on table 15.

Four sites were opened in Los Angeles, San Bernardino and Ventura counties during the second phase from December 13 and December 14. One site in Los Angeles county and the single site in Ventura County were closed at 7 pm on December 13 because the Period of Concern had concluded by that time and no customers had been de-energized. The remaining site in Los Angeles County and the site in San Bernardino County were closed on December 14 after the end of Period of Concern and no customers had been de-energized.

Lastly, SCE deployed four CRCs to support customers under consideration for the last phase of this event, December 15 through December 16. All four sites were closed at 10 pm on December 15 as the Period of Concern concluded early and no customers were de-energized.

**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

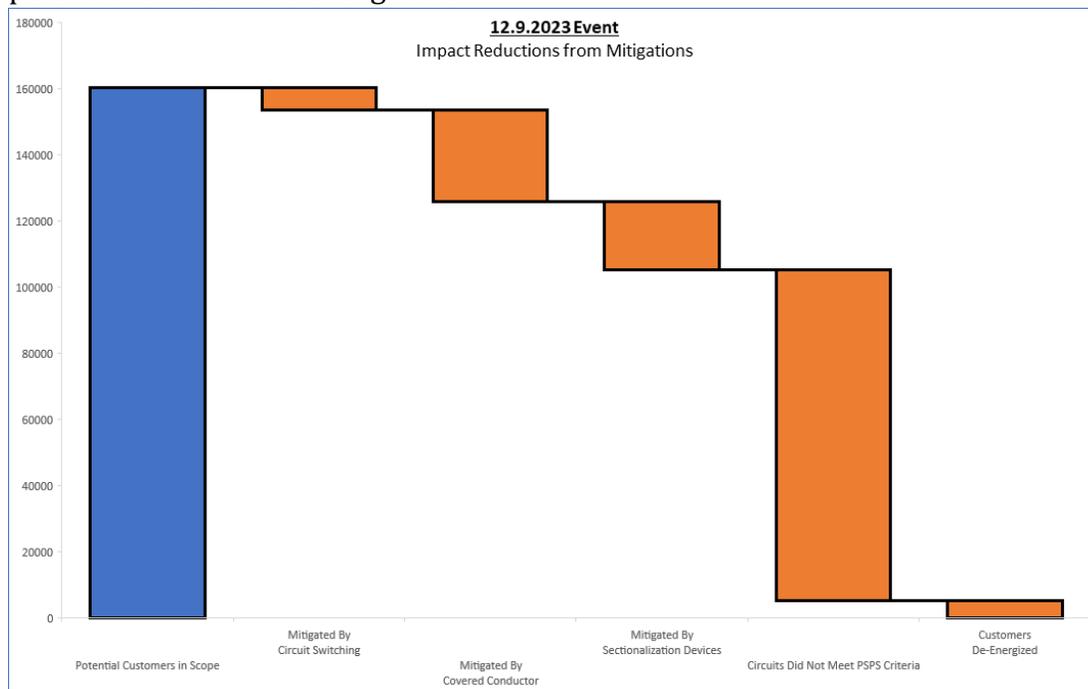
For this event, SCE used circuit playbooks to identify circuit switching that could reduce the number of customers in scope for potential de-energization. SCE transferred over 6,711 customers from circuits on the monitored circuit list to adjacent circuits not in scope pursuant to the then-current forecast, thereby maintaining service to these customers throughout the event.

In addition, the replacement of bare wire with covered conductor allowed SCE to raise windspeed thresholds and thus reduced impacts to customers on portions of 51 circuits in scope for potential de-energization.

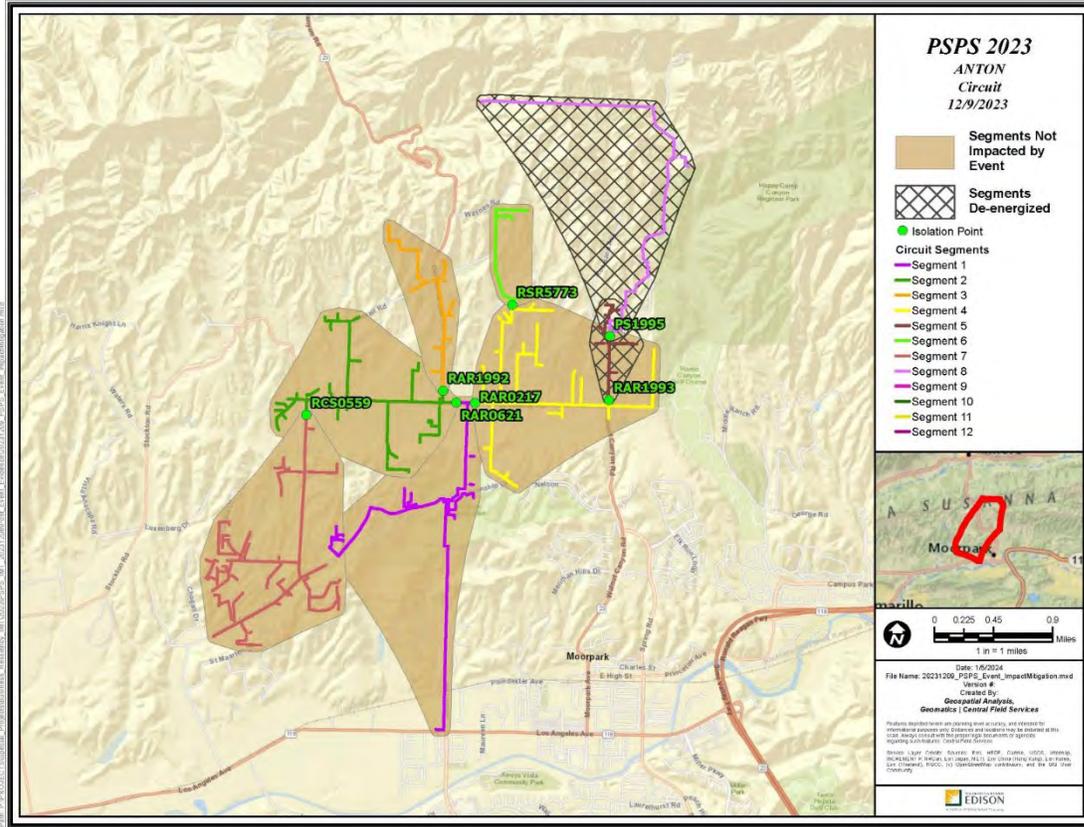
Sectionalization devices allowed SCE to keep the power on for some customers on circuits that were ultimately de-energized.

With the above-discussed mitigations in place, SCE was able to limit de-energization to 5,311 customers.

The waterfall graph and maps below, continued in attachment D, 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.<sup>32</sup>



<sup>32</sup> "Circuits Did Not Meet 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.



## Section 11. Lessons Learned

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.**

SCE believes our thresholds are adequate and correctly applied in de-energized areas as detailed in Attachment B - Quantitative and Qualitative Factors in PPS Decision-Making Technical Paper.

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

<b>Lessons Learned</b>		
<b>Issue</b>	<b>Discussion</b>	<b>Resolution</b>
Missed and/or incorrect notifications.	System malfunctions and process errors, along with unexpected IT latency issues, forced the notifications team to revert to more time-consuming manual processes, which resulted in some missed/incorrect/delayed notifications for this event.	In addition to the corrective actions described in section 5-6, SCE is conducting a comprehensive examination to identify system and process issues that are resulting in missed/incorrect/delayed notifications. Using these findings, SCE will correct programming errors and optimize processes to reduce missed notifications. Additionally, SCE will conduct expanded testing to validate corrections.
In-event engagement with Public Safety Partners	Some public safety partners suggested that SCE undertake efforts to optimize the external briefings that SCE provides during events.	SCE will engage CalOES and other stakeholders to discuss potential improvements to the external briefings for 2024 PSPS events. We are done
A utility operator interconnected with SCE re-energized SCE equipment when it should have stayed de-energized.	A partially de-energized circuit was restored prematurely by an interconnected utility operator during PSPS conditions potentially creating a public safety risk.	Engage with interconnected utility operator to ensure better coordination during PSPS events. Update internal procedures to reflect the appropriate utility contact(s).

**Section 12. Other Relevant Information**

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

N/A

Attachment A-Public Safety Partner and Customer Notification Scripts

## SCE LNO Notification Template Text/Format as of 7/17/23

Liaison Officer (LNO) notifications are sent by circuit and/or county and based on circuits listed on SCE's Monitored Circuit List (MCL). LNO notifications begin 72 hours before the period of concern, when possible. LNO notifications differ from SCE customer notifications in terms of timing, message content, frequency, and audience.

### There are seven unique LNO notification templates:

**Advanced Initial** notification (72 hours out--if possible) is sent at the start of the incident for each impacted county and includes the activation's first LNO spreadsheet. \*

**Initial/Update** notifications are typically sent daily with an attached LNO spreadsheet after each weather report/period of concern (POC) generated by Operations. Spreadsheet includes all clear designation

**Expected Shutoff** (Imminent 1-4) (previously imminent de-energization) sent, as needed, during PSPS events. No attachments. \*

**PSPS Shutoff** (previously de-energization) sent, as needed, during PSPS events. No attachments.

**Preparation for Restoration** sent, as needed, during PSPS events. No attachments. \*

**Restored** notifications sent, as needed, during PSPS events. No attachments.

**Event Concluded** notification is sent at the end of the incident for each county that had one or more circuits potentially impacted by PSPS

MCL letting officials know the power is restored (or restored with noted exceptions), and the event is concluded.

**LNO notifications are sent to the following stakeholder groups.** Contacts are either mapped to specific circuits or are included based on their County-level affiliation.

- City/County/Tribal Officials
- Public Safety Partners, including CalFire and other emergency contacts
- CCA Administrators
- State and Federal Legislative District Offices
- 211 Operators
- Independent Living Centers
- Other stakeholders with longer range emergency planning responsibilities

## **Template language for all notifications (after notification language)**

**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. Circuits marked *Updated Period of Concern* in the Circuit Notification Status column have new periods of concern or other changed status. Definitions are on the second tab of the spreadsheet. Please email [SCELiaisonOfficer@sce.com](mailto:SCELiaisonOfficer@sce.com) with any questions about the spreadsheet.

**Weather forecasting:** SCE's forecasting relies on in-house meteorologists and fire scientists. SCE may notify for a potential PSPS independently of any Red Flag Warnings being declared by the National Weather Service, and weather forecasts on radio and television may provide different information.

**Online outage information:** Visit [sce.com/outages](http://sce.com/outages) starting three days before the forecast start date for information about PSPS areas and timing, as well as information about all other outages in the SCE service area. Starting up to seven days out from a forecast PSPS event, a weather outlook (at the county level) is available at [sce.com/weather-awareness](http://sce.com/weather-awareness).

### **For More Information:**

- [www.sce.com/psps](http://www.sce.com/psps)
- Maps showing PSPS boundaries - [Check Outage Status \(sce.com\)](http://sce.com)
- [sce.com/fireweather](http://sce.com/fireweather) for weather conditions: .
- [Public Safety Partner Portal](http://sce.com/publicsafetyportal) (for registered users) / email [publicsafetyportal@sce.com](mailto:publicsafetyportal@sce.com) to request access
- REST service (web-based password-protected access to GIS layers) / email [SCERestInfo@sce.com](mailto:SCERestInfo@sce.com) to request access
- [Sce.com/wildfire](http://sce.com/wildfire) for information on customer programs and other resources
- De-energization and restoration policies: [sce.com/pspsdecisionmaking](http://sce.com/pspsdecisionmaking)

**Our Emergency Operations Center is open and our IMT is activated. Contact information is provided below.**

### **SCE Contact Information for Public Officials only (Please 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: [BusinessResiliencyDutyManager@sce.com](mailto:BusinessResiliencyDutyManager@sce.com)-- **Only monitored during emergency activations.**
- **Government/tribal officials:**
  - Phone: Liaison (government relations) 24/7 hotline: **800-737-9811**. Only monitored during emergency activations.
  - Email: [SCELiaisonOfficer@sce.com](mailto:SCELiaisonOfficer@sce.com). **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: [AFNIMT@sce.com](mailto:AFNIMT@sce.com). **Note: Only monitored during emergency activations.**

**SCE Contact Information for the Public: (Please DO share this information via web and social media).**

- Outage-specific customer service issues: 800-611-1911
- Billing and service inquiries: 800-684-8123
- PSPS event status: [sce.com/PSPS](http://sce.com/PSPS)
- Non-PSPS outages: [sce.com/outages](http://sce.com/outages)
- Update customer contact information: [www.sce.com/pspsalerts](http://www.sce.com/pspsalerts)
- Information on customer programs and other resources [sce.com/wildfire](http://sce.com/wildfire)

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

### **Notification Subject Line and Message**

**Advanced Initial Notice for PSPS Event in COUNTY NAME on [start POC DATE].**

#### **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.

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

Customers on the affected circuits will be notified starting two days before the forecasted start date, however the maps on [sce.com/psps](https://sce.com/psps) will reflect this information today.

We have opened our virtual Emergency Operations Center and set up an incident management team for this event including in-house meteorologists, fire scientists, liaison and public information officers, and other technical staff. Contact information is provided below.

**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](https://sce.com/psps)

---

## **Updated Conditions (Update) Notification**

### **Notification Subject Line and Message:**

**SCE Update/Initial Notice for PSPS Event in [County Name].**

#### **COMMENTS:**

**Public Safety Power Shut-Off update notification for official use:** We are providing ongoing information and periods of concern for PSPS circuits in [County Name], based on updated weather reports. A complete list, including both the forecasted start and end times for all circuits is attached.

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. The map on [sce.com/psps](https://sce.com/psps) is being continually updated to reflect current status.

Information about Community Resource Centers and Community Crew Vehicles will be available one day in advance of the period of concern at [sce.com/psps](https://sce.com/psps).

**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](https://sce.com/psps)

---

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

**Notification Subject Line and Message:**

**SCE Expected Shutoff Notice for PSPS Event in **County Name.****

**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.

Customers on the affected circuits are being notified. Information about Community Resource Centers and Community Crew Vehicles is available at [sce.com/psps](https://www.sce.com/psps).

Our virtual Emergency Operations Center is open and our IMT is activated. Contact information is provided below.

**When the weather improves, we will inspect our lines for damage before we restore power. This typically takes up to 8 hours but could take longer if we need daylight for safe inspections.**

**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](https://www.sce.com/psps)

---

**PSPS Shutoff Notification (De-energization notification)**  
**Notification Subject Line and Message:**

**SCE PSPS Shutoff Notice for [CIRCUIT NAME] Circuit in [COUNTY NAME].**

**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:**

SCE is notifying customers who are being shut off. The map on [sce.com/psps](http://sce.com/psps) is being updated to reflect the current PSPS outages. Information about Community Resource Centers and Community Crew Vehicles is available at [sce.com/psps](http://sce.com/psps)

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

Our virtual Emergency Operations Center is open and our IMT is activated. Contact information is provided below.

**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](http://sce.com/psps)

**(Preparation for Restoration)**

**Notification Subject Line and Message:**

**Preparation for Restoration [CIRCUIT NAME] Circuit in [COUNTY NAME]**

**Public Safety Power Shutoff update notification for official use:** Our 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):**
- **Incorporated City:** [incorporated city]
- **Unincorporated County Area:** [unincorporated area description]
- **Comments:**

Typically, power is restored within 8 hours. Exceptions include circuits in remote areas and circuits that have sustained significant damage. Any updates to restoration information will be posted on [www.sce.com/psps](http://www.sce.com/psps) and the Public Safety Partner Portal.

SCE is notifying customers. The map on [sce.com/psps](http://sce.com/psps) will be updated to reflect the current status.

SCE has opened its virtual Emergency Operations Center. Contact information is provided below.

**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](http://sce.com/psps)

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## **Restore Notification (formerly: RE-ENERGIZE) Restoration Notification**

### **Notification Subject Line and Message:**

**Important: SCE Restoration Notice for PSPS Event on [CIRCUIT NAME] Circuit in [COUNTY NAME].**

**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):**
- **Incorporated City:** [incorporated city]
- **Unincorporated County Area:** [unincorporated area description]
- **Comment:**

SCE is also notifying customers that power has been turned back on.

SCE's virtual Emergency Operations Center will be closing when all customers are restored. Contact information is provided below.

**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](http://sce.com/psps)

---

## **Event Concluded Notification**

### **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 [sce.com/outages](https://www.sce.com/outages) for more information.*

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

**Notification Subject Line and Message:**

**SCE PSPS Event Concluded Notice for [COUNTY NAME].**

**Public Safety Power Shutoff update notification for official use:**

The PSPS event has concluded, however some customers in [county name] remain without power.

Repairs and restoration for these customers will be handled by SCE's regular grid operations:

- **Circuit:**
  - **Segments:**
  - **Incorporated City of:**
  - **Unincorporated County Area:**
  - **Reason for continued outage:**
-

### Cancelation no longer in scope

#### **Description:**

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

#### **Notification Subject Line and Message:**

**PSPS Cancellation for circuit(s) in County Name.**

**Public Safety Power Shutoff update notification for official use:** Due to improved conditions SCE is no longer planning to shut off power in the next for 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](http://sce.com/outages) for more information.*

### Cancelation no longer in scope

#### **Description:**

*Sent 2 withing two hours after a circuit no longer in scope for immediate PSPS but remains in scope*

#### **Notification Subject Line and Message:**

**PSPS Cancellation for the circuit(s) County Name.**

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

SCE PSPS Update: However, because high winds are still forecast through ^End Day of week^ ^morning/afternoon/evening^ we might have to shut off power again.

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

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.

SCE has opened its Emergency Operations Center. Contact information is provided below.

Customers on the affected circuits are being notified. Information about Community Resource Centers and Community Crew Vehicles is available at [sce.com/pmps](https://www.sce.com/pmps).

## PSPS Variable Notification Templates

10/20/2023

### 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. 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.sce.com](https://publicsafetyportal.sce.com), 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. 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](https://publicsafetyportal.sce.com), contact your assigned SCE account representative, or call 1-800-611-1911

#### EMAIL

Subject: SCE Public Safety Power Shutoff (PSPS) Advanced Initial Alert

From: [do\\_not\\_reply@scwebservices.com](mailto:do_not_reply@scwebservices.com)

Southern California Edison

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. 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*

*Rate*

*Circuit*

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. We are working to reduce the number of customers affected and will keep you updated. Visit [sce.com/pmps](http://sce.com/pmps) for the latest information. For downed power lines, call 911. View in more languages: [www.sce.com/PSPSInitial](http://www.sce.com/PSPSInitial)

### 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. We are working to reduce the number of customers affected and will keep you updated. Visit [sce dot com slash pmps](http://sce.com/pmps) for the latest information. If you see a downed power line call 911.

### EMAIL

**Subject:** SCE Public Safety Power Shutoff Alert

**From:** [do\\_not\\_reply@scwebservices.com](mailto:do_not_reply@scwebservices.com)

Southern California Edison

For more information on PSPS in your preferred language, click below:

[ESPAÑOL](#)

1-800-441-2233

[한국어](#)

1-800-628-3061

[中文](#)

1-800-843-8343

[TIẾNG VIỆT](#)

1-800-327-3031

[TAGALOG](#)

1-800-655-4555

[MORE LANGUAGES](#)

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 dangerous wildfires. 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 [sce.com/pmps](http://sce.com/pmps).

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**

**Circuit**

- For information about preparing for a power outage, visit [sce.com/safety/family/emergency-tips](http://sce.com/safety/family/emergency-tips).
- 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 [sce.com/psps](https://www.sce.com/psps) for the latest information and availability of community resources. For downed power lines, call 911. View in more languages: [www.sce.com/PSPSUpdate](https://www.sce.com/PSPSUpdate)

#### 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](https://www.sce.com/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

**From:** [do\\_not\\_reply@scwebservices.com](mailto:do_not_reply@scwebservices.com)

Southern California Edison

For more information on PSPS in your preferred language, click below:

[ESPAÑOL](#)

1-800-441-2233

[한국어](#)

1-800-628-3061

[中文](#)

1-800-843-8343

[TIẾNG VIỆT](#)

1-800-327-3031

[TAGALOG](#)

1-800-655-4555

[MORE LANGUAGES](#)

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 dangerous wildfires. We are working to reduce the number of customers whose power will be shut off and will keep you updated. For the latest updates, outage map, and availability of community resources, visit [sce.com/psps](https://www.sce.com/psps).

This alert applies to the following address(es):

**Customer Address**

**Service Account**

**Meter Number**

**Rate**

**Circuit**

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

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

**4 | PSPS EVENT ALL-CLEAR | AVOIDED**  
**(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 [sce.com/pmps](http://sce.com/pmps). View in more languages: [www.sce.com/PSPSAllClear](http://www.sce.com/PSPSAllClear)

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 pmps.

EMAIL

**Subject:** SCE Public Safety Power Shutoff (PSPS) All-clear  
**From:** [do\\_not\\_reply@scewebservices.com](mailto:do_not_reply@scewebservices.com) Southern California Edison

For more information on PSPS in your preferred language, click below:

[ESPAÑOL](#)

1-800-441-2233

[한국어](#)

1-800-628-3061

[中文](#)

1-800-843-8343

[TIẾNG VIỆT](#)

1-800-327-3031

[TAGALOG](#)

1-800-655-4555

[MORE LANGUAGES](#)

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.

This alert applies to the following address(es):

*Customer Address*

*Service Account*

*Meter Number*

*Rate*

*Circuit*

**If power is off, please call 1-800-611-1911 or visit [sce.com/pmps](http://sce.com/pmps).**

For more information about PSPS and wildfire safety, please visit [sce.com/pmps](http://sce.com/pmps).

## 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 **^End Day of week^ ^morning /afternoon /evening^**. We will notify you again if we shut power off. Weather could affect shutoff timing and wind-related outages may also occur. Visit [sce.com/psps](https://www.sce.com/psps) for the latest information and availability of community resources. For downed power lines, call 911. Thanks for your patience. View in more languages: [www.sce.com/PSPSExpected](https://www.sce.com/PSPSExpected)

### 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 **^End Day of week^ ^morning /afternoon /evening^**. 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](https://www.sce.com/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

**From:** [do\\_not\\_reply@scewebservices.com](mailto:do_not_reply@scewebservices.com)

Southern California Edison

For more information on PSPS in your preferred language, click below:

[ESPAÑOL](#)

[한국어](#)

[中文](#)

[TIẾNG VIỆT](#)

[TAGALOG](#)

1-800-441-2233

1-800-628-3061

1-800-843-8343

1-800-327-3031

1-800-655-4555

[MORE LANGUAGES](#)

It's likely we will shut off your power in the next 4 hours due to wind-driven fire conditions. Conditions could last through **^End Day of week^ ^morning /afternoon /evening^**. We are working to reduce the number of customers affected. Weather could also affect shutoff timing and wind-related outages may occur. We will notify you again if we shut off your power. For the latest updates, outage map, and availability of community resources, visit [sce.com/psps](https://www.sce.com/psps).

We appreciate 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](#)

[Circuit](#)

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

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

**6 | PSPS SHUTOFF**  
**(SENT AT AUTHORIZATION TO DE-ENERGIZE)**

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 [sce.com/psps](http://sce.com/psps) 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: [www.sce.com/PSPSShutoff](http://www.sce.com/PSPSShutoff)

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 **^End Day of week^ ^morning/ 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](http://sce.com/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)

**From:** [do\\_not\\_reply@scwebservices.com](mailto:do_not_reply@scwebservices.com)

Southern California Edison

For more information on PSPS in your preferred language, click below:

[ESPAÑOL](#)

1-800-441-2233

[한국어](#)

1-800-628-3061

[中文](#)

1-800-843-8343

[TIẾNG VIỆT](#)

1-800-327-3031

[TAGALOG](#)

1-800-655-4555

[MORE LANGUAGES](#)

We are shutting off your power due to current high risk of wind-driven wildfire. High winds are forecast to last through **^End Day of week^ ^morning/ 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. We will update you as conditions change. Please remember to turn off or unplug appliances or equipment that may start automatically when power is restored.

Please visit [sce.com/psps](http://sce.com/psps) for the most up to date information, including outage map and restoration information, and availability of SCE community resources.

REMEMBER: If you see a downed power line, call 911 first, and then notify SCE at 1-800-611-1911. We understand this shutoff is inconvenient. We appreciate your continued patience as we work to keep your community safe.

This alert applies to the following address(es):

**Customer Address**

**Service Account**

**Meter Number**

**Rate**

Circuit

## 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 **^End Day of week^ ^morning /afternoon/ 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 [sce.com/psps](http://sce.com/psps) for the latest info on restoration and SCE community resources in your area. For downed power lines, call 911. View in more languages: [www.sce.com/PSPSContinuedShutoff](http://www.sce.com/PSPSContinuedShutoff)

### 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 **^End Day of week^ ^morning /afternoon/ 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 [sce dot com slash psps](http://sce.com/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)

**From:** [do\\_not\\_reply@scewebservices.com](mailto:do_not_reply@scewebservices.com)

Southern California Edison

For more information on PSPS in your preferred language, click below:

[ESPAÑOL](#)

1-800-441-2233

[한국어](#)

1-800-628-3061

[中文](#)

1-800-843-8343

[TIẾNG VIỆT](#)

1-800-327-3031

[TAGALOG](#)

1-800-655-4555

[MORE LANGUAGES](#)

Thank you for your continued patience during this Public Safety Power Shutoff. Wind-driven fire conditions could last through **^End Day of week^ ^morning /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. Visit [sce.com/psps](http://sce.com/psps) 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**

**Circuit**

## 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 [sce.com/psps](http://sce.com/psps). 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](http://www.sce.com/PSPSPrepRestore)

### 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](http://sce.com/psps)

### EMAIL

**Subject:** SCE Public Safety Power Shutoff Update

**From:** [do\\_not\\_reply@scewebservices.com](mailto:do_not_reply@scewebservices.com)

Southern California Edison

For more information on PSPS in your preferred language, click below:

[ESPAÑOL](#)

1-800-441-2233

[한국어](#)

1-800-628-3061

[中文](#)

1-800-843-8343

[TIẾNG VIỆT](#)

1-800-327-3031

[TAGALOG](#)

1-800-655-4555

[MORE LANGUAGES](#)

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 [sce.com/psps](http://sce.com/psps). 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.

This alert applies to the following address(es):

*Customer Address*

*Service Account*

*Meter Number*

*Rate*

*Circuit*

## 9 | PSPS ENDED - RESTORED & ALL CLEAR [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 [sce.com/outage](http://sce.com/outage). We know that safety outages are inconvenient and thank you for your patience. View in more languages: [www.sce.com/PSPSEnded](http://www.sce.com/PSPSEnded)

### 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 Safety Power Shutoff Ended: All Power Restored  
**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

[한국어](#)

1-800-628-3061

[中文](#)

1-800-843-8343

[TIẾNG VIỆT](#)

1-800-327-3031

[TAGALOG](#)

1-800-655-4555

[MORE LANGUAGES](#)

We have restored power and ended the Public Safety Power Shutoff in your area due to improved weather conditions. If your power is still off, please call 1-800-611-1911 or visit [sce.com/outage](http://sce.com/outage). We understand that safety outages are inconvenient and thank you for your patience.

This alert applies to the following address(es):

*Customer Address*

*Service Account*

*Meter Number*

*Rate*

*Circuit*

For more information about PSPS and wildfire safety, please visit [sce.com/psps](http://sce.com/psps).

## 10 | RESTORED, NOT ALL CLEAR – 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 **^End Day of week^ ^morning/afternoon/evening^** 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 [sce.com/pmps](http://sce.com/pmps). Thanks for your patience. View in more languages: [www.sce.com/PSPSNotAllClear](http://www.sce.com/PSPSNotAllClear)

### 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 **^End Day of week^ ^morning/afternoon/evening^** 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 pmps](http://sce.com/pmps).

### EMAIL

**Subject:** SCE Public Safety Power Shutoff Update: Power restored; PSPS still in effect  
**From:** [do\\_not\\_reply@scwebservices.com](mailto:do_not_reply@scwebservices.com) Southern California Edison

For more information on PSPS in your preferred language, click below:

[ESPAÑOL](#)

1-800-441-2233

[한국어](#)

1-800-628-3061

[中文](#)

1-800-843-8343

[TIẾNG VIỆT](#)

1-800-327-3031

[TAGALOG](#)

1-800-655-4555

[MORE LANGUAGES](#)

Winds have improved enough for us to restore power in your area. However, because high winds are still forecast through **^End Day of week^ ^morning/afternoon/evening^** 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 [sce.com/pmps](http://sce.com/pmps).

We understand that safety outages are inconvenient and thank you for your continued patience.

This alert applies to the following address(es):

[Customer Address](#)

[Service Account](#)

[Meter Number](#)

[Rate](#)

[Circuit](#)

For more information about PSPS and wildfire safety, please visit [sce.com/pmps](http://sce.com/pmps).



# PUBLIC SAFETY POWER SHUTOFF:

## DECISION-MAKING

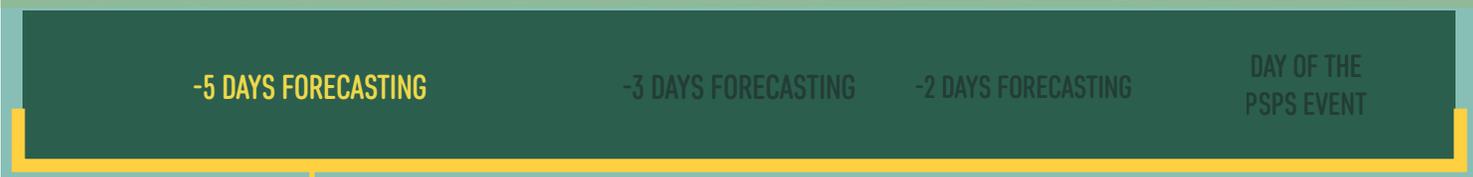
**PUBLIC SAFETY POWER SHUTOFFS ARE A TOOL OF LAST RESORT TO PROTECT OUR COMMUNITIES FROM THE THREAT OF WILDFIRE.**



**FOR EACH PSPS**

**1** IS THIS SHUTOFF NEEDED TO PROTECT PUBLIC SAFETY?

**2** CAN WE SAFELY REDUCE THE NUMBER OF CUSTOMERS WHO LOSE POWER?



We consider PSPS when weather and fire experts forecast dangerous conditions, including strong winds, very dry vegetation and low humidity. Combined, these create the risk that flying debris or other damage to our wires and equipment could cause a fire with the potential to spread rapidly.

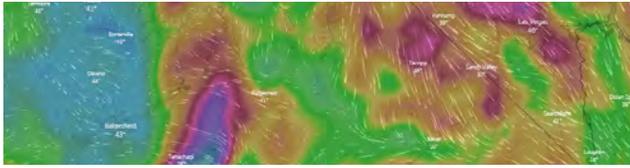


-5 DAYS FORECASTING

-3 DAYS FORECASTING

-2 DAYS FORECASTING

DAY OF THE  
PSPS EVENT



Our meteorologists and fire scientists continue to review weather conditions, using both internal and external weather models and National Weather Service forecasts, alerts and warnings.



The PSPS Incident Management Team develops a list of circuits that could be impacted. We speak with county offices of emergency management to discuss any public safety issues.



The team is led by an incident commander. Incident commanders undergo continual training for this role and are responsible for all shutoff decisions.

### ! DECISION POINT

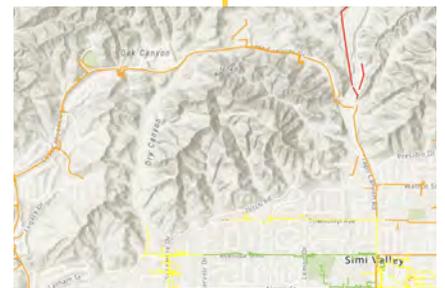
If the weather report is inconclusive, we will wait for additional weather reports or field assessments before we notify customers. We confer with the National Geographic Area Coordination Center (GACC) about fire danger risk.

### ! DECISION POINT

The PSPS Incident Management Team reviews options for supplying customers with power from different circuits to keep them energized.



Field crews look for factors that could increase the risk of fire such as existing damage or other hazards to poles and wires.



-5 DAYS FORECASTING

-3 DAYS FORECASTING

-2 DAYS FORECASTING

DAY OF THE  
PSPS EVENT

## DECISION POINT

The Incident Management Team looks at twice-daily weather reports to see if the weather pattern has shifted. As the forecast becomes more precise, we update the list of circuits that might be impacted. If the weather pattern has weakened, or shifted outside of high fire risk areas, we will cancel the event.



We notify customers. We try to visit our Critical Care and Medical Baseline customers who rely on life-saving medical equipment to confirm they have been informed about the event.

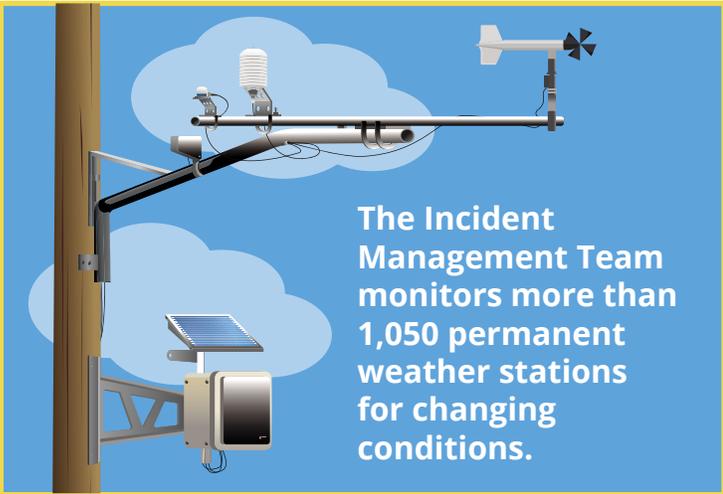
-5 DAYS FORECASTING

-3 DAYS FORECASTING

-2 DAYS FORECASTING

DAY OF THE  
PSPS EVENT

**3-6 Hours:** Before the winds are forecasted to hit peak speeds, the Incident Management Team begins monitoring conditions. A team, including experts in grid operations, meteorology and fire science, advise the incident commander, who will make the final decisions to shut off power.



The Incident Management Team monitors more than 1,050 permanent weather stations for changing conditions.



As the winds increase, field crews provide mobile weather station reports and report flying debris or other hazards.

-5 DAYS FORECASTING

-3 DAYS FORECASTING

-2 DAYS FORECASTING

DAY OF THE  
PSPS EVENT



## DECISION POINT

### Weather:

Every 10 minutes, weather station readings are updated for each circuit. Meteorologists identify weather trends that could slow or speed up decision-making.



## DECISION POINT

### Grid Operations:

The team looks for opportunities to turn off individual segments of a circuit to keep the rest of the circuit powered.



## DECISION POINT

### Recommendation:

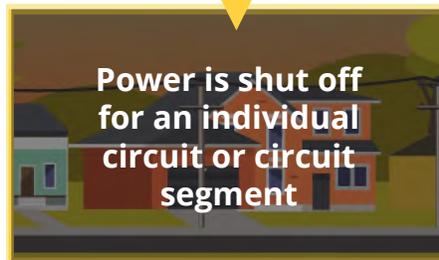
The lead PSPS operator recommends shutting off power to a circuit or segment when wind speeds are about to hit or exceed our predetermined threshold for unsafe conditions, or field crews advise of an urgent hazard in the field.



## DECISION POINT

### Authorization:

The incident commander reviews the recommendation and asks follow-up questions, if necessary, before approving the decision.

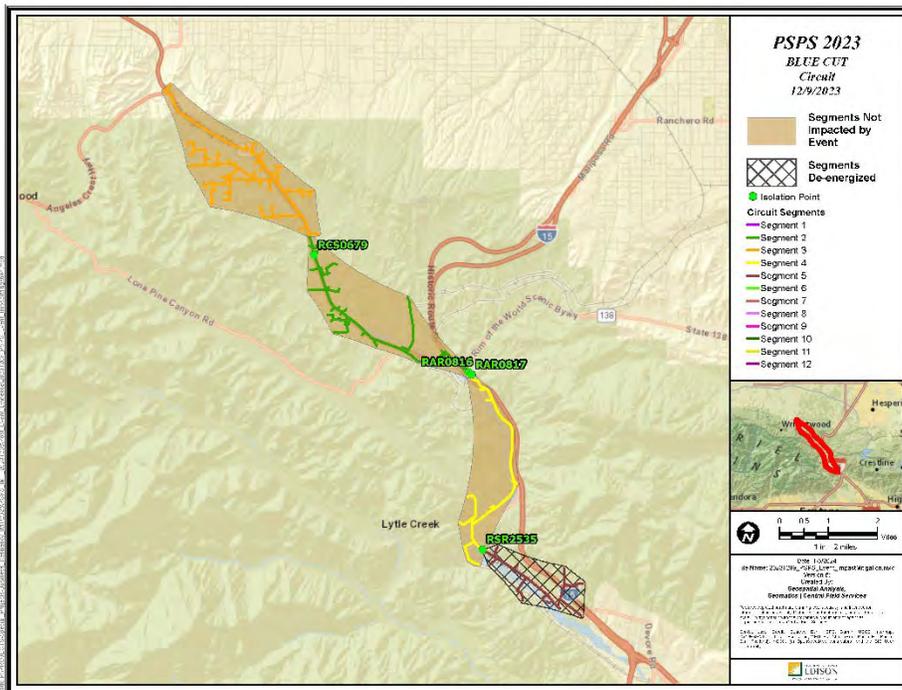
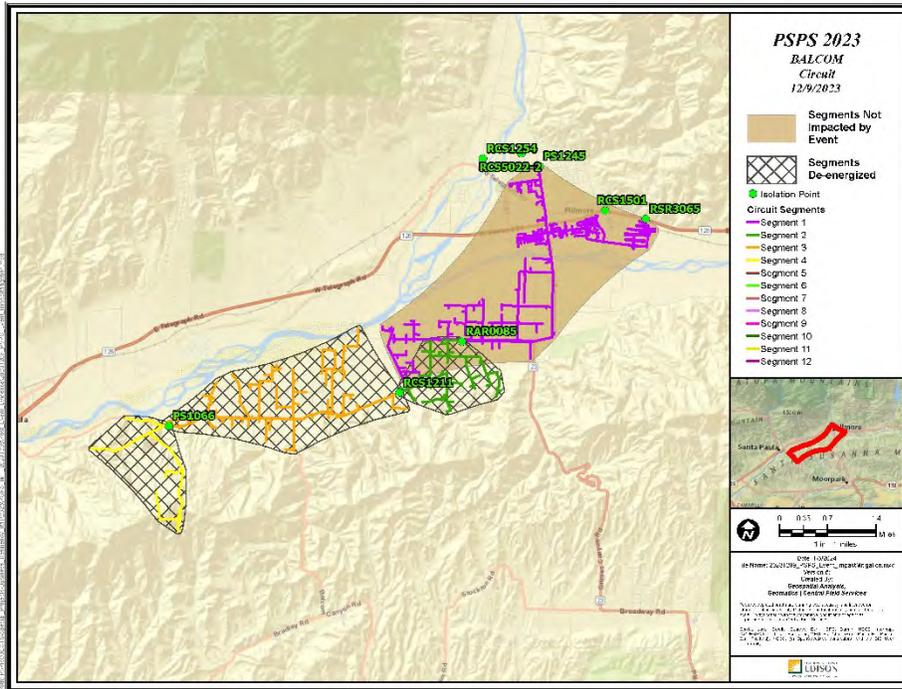


AS THE WINDS DIE DOWN,  
POWER IS RESTORED TO  
ALL CUSTOMERS

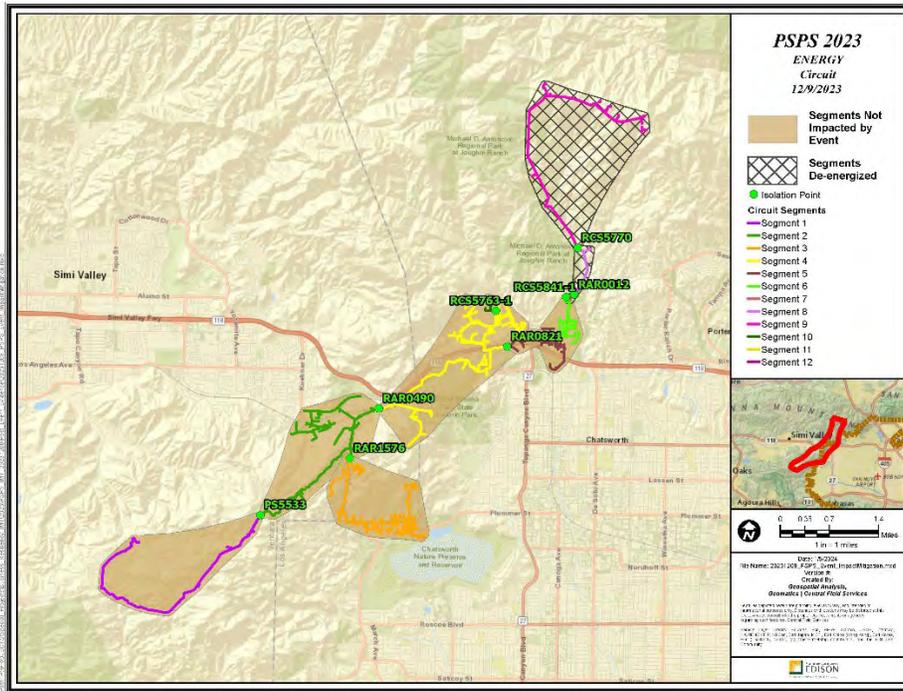
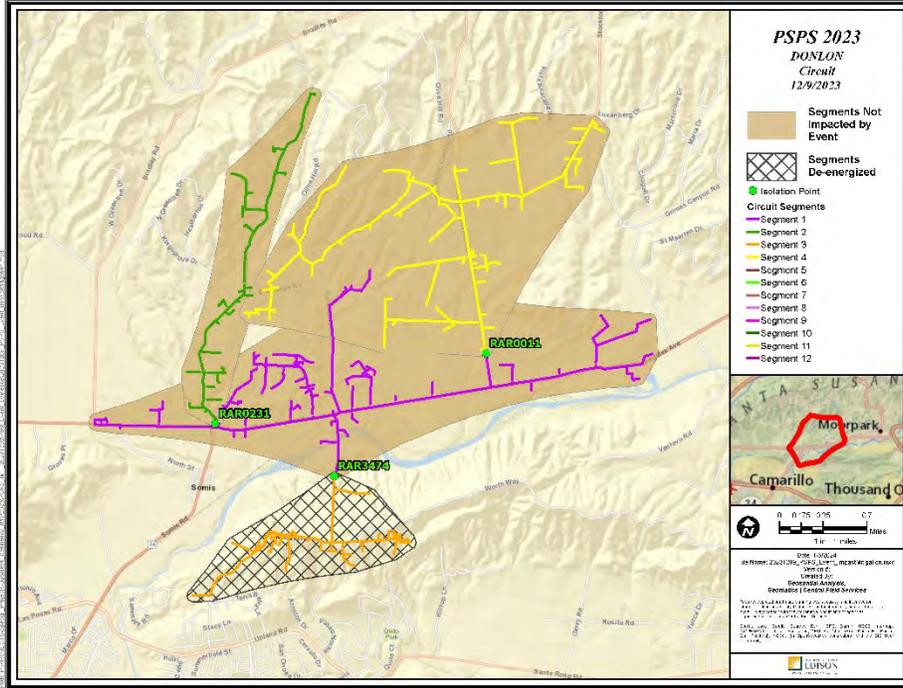
When dangerous winds diminish, field crews inspect the lines that had been shut off. Usually, this is done by crews in utility trucks. If there is no damage to the lines, electricity will be restored immediately. The average time for restoration in 2020 was five to six hours, excluding lines that were damaged or required air or foot patrol. Some of these patrols will take longer because they must be done in daylight hours.

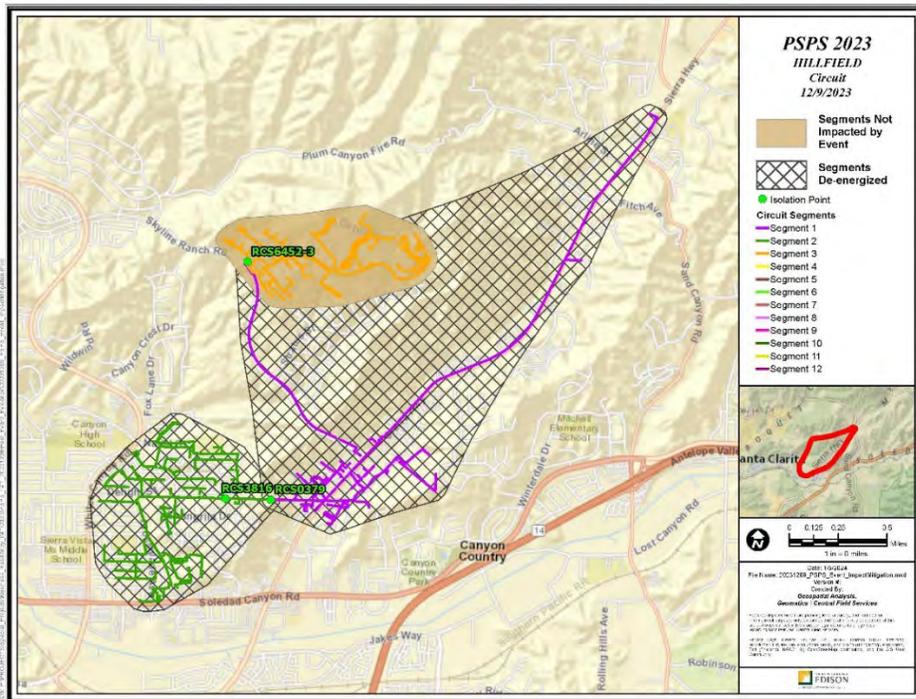
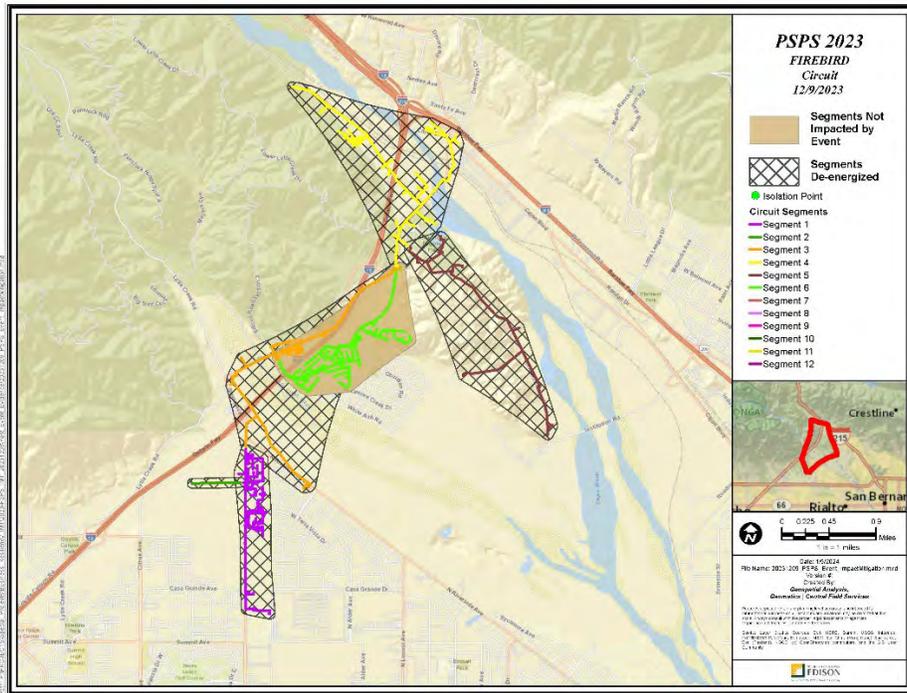


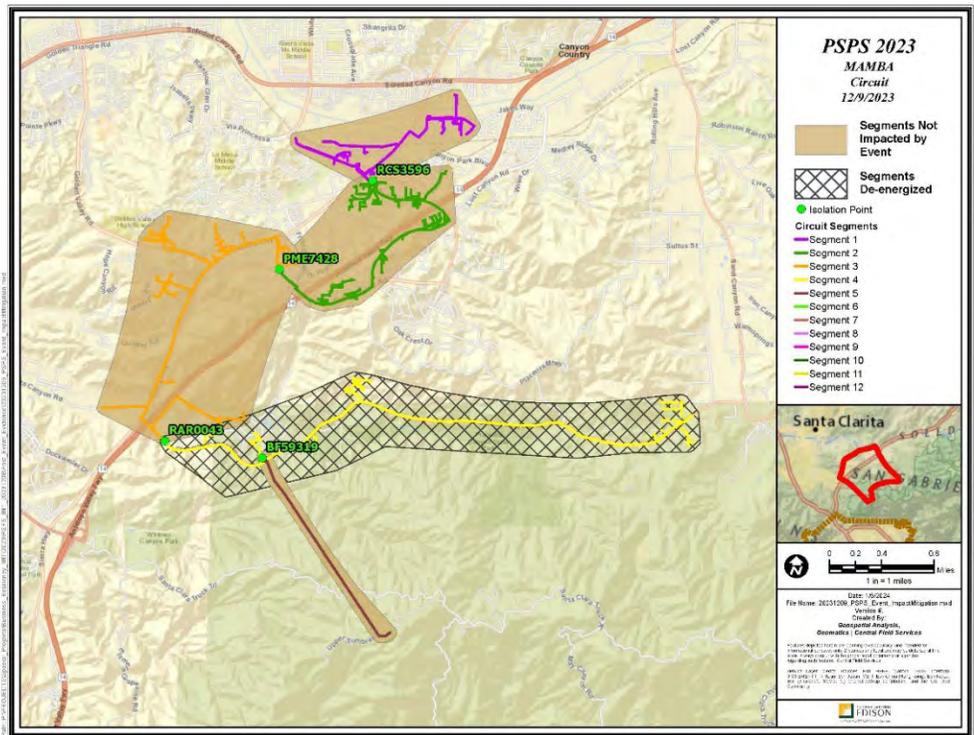
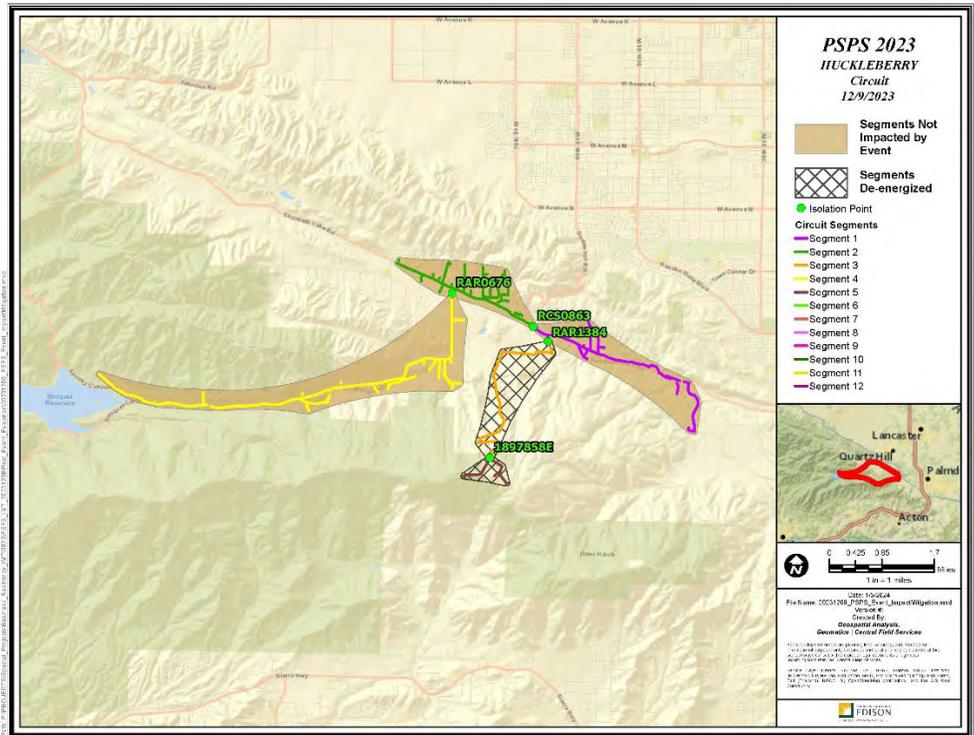




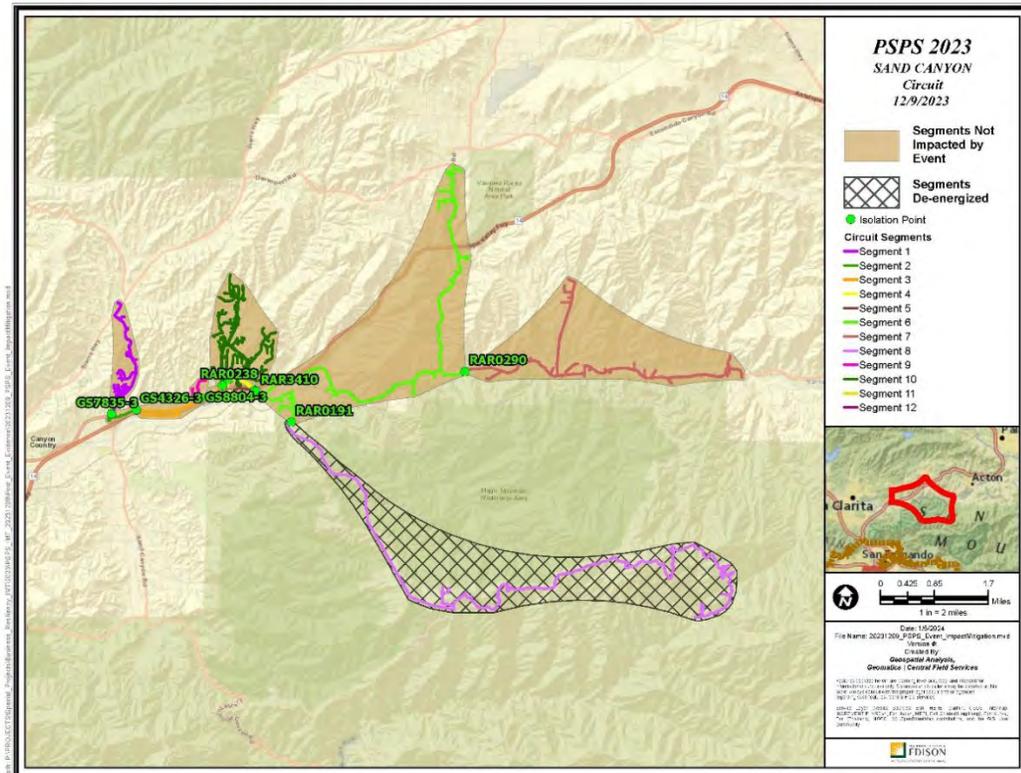
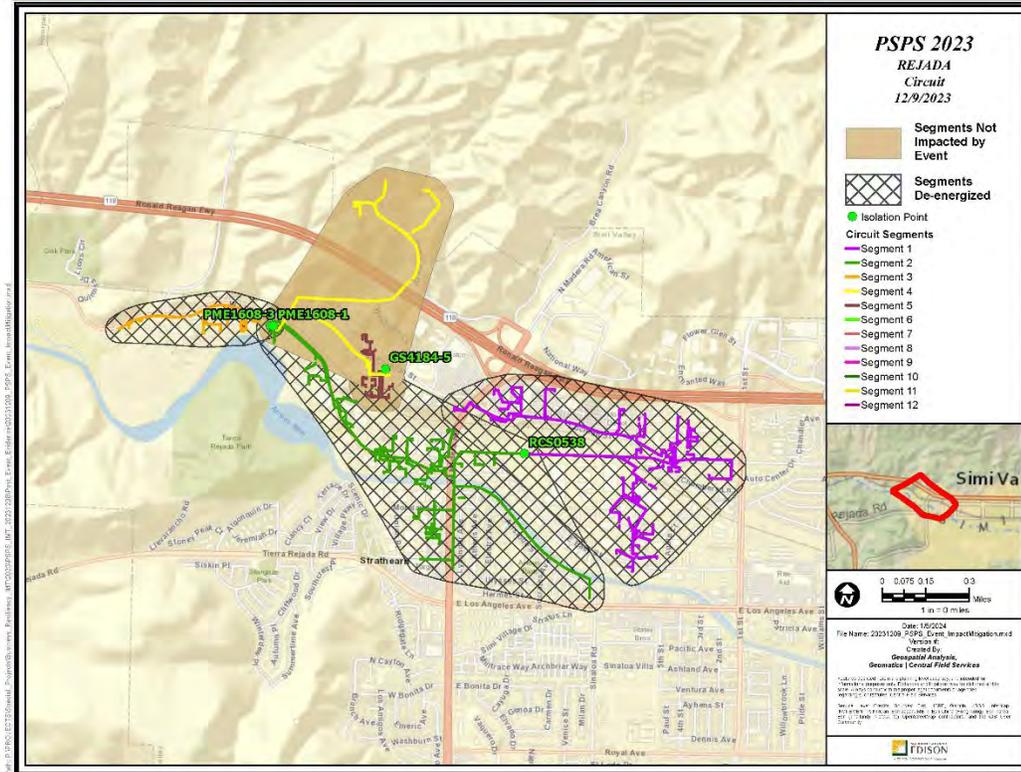














### Officer Verification

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 9<sup>th</sup> day of January 2024 in La Canada, California

DocuSigned by:  
  
F304FA0A2012400...

Shinjini Menon

Vice President,

Asset Management & Wildfire Safety

**Appendix A**

**12.9.23 Public Safety Power Shutoff Post-Event Report Data**

This appendix will be filed via mixed media with Commission's Docket office and can be accessed at: [on.sce.com/PSPSpостeventreports](https://on.sce.com/PSPSpостeventreports)