# 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 OCTOBER 8, 2024 HIGH THREAT EVENT

ANNA VALDBERG R. OLIVIA SAMAD

Attorneys for SOUTHERN CALIFORNIA EDISON COMPANY

2244 Walnut Grove Avenue Post Office Box 800 Rosemead, California 91770 Telephone: (626) 302-3477

E-mail: Olivia.Samad@sce.com

Dated: October 24, 2024

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 OCTOBER 8, 2024
HIGH THREAT EVENT

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 October 8, 2024, high threat event (Attachment A hereto). 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.

Respectfully submitted,

ANNA VALDBERG R. OLIVIA SAMAD

/s/ R. Olivia Samad

By: R. Olivia Samad

Attorneys for

SOUTHERN CALIFORNIA EDISON COMPANY

2244 Walnut Grove Avenue

Post Office Box 800

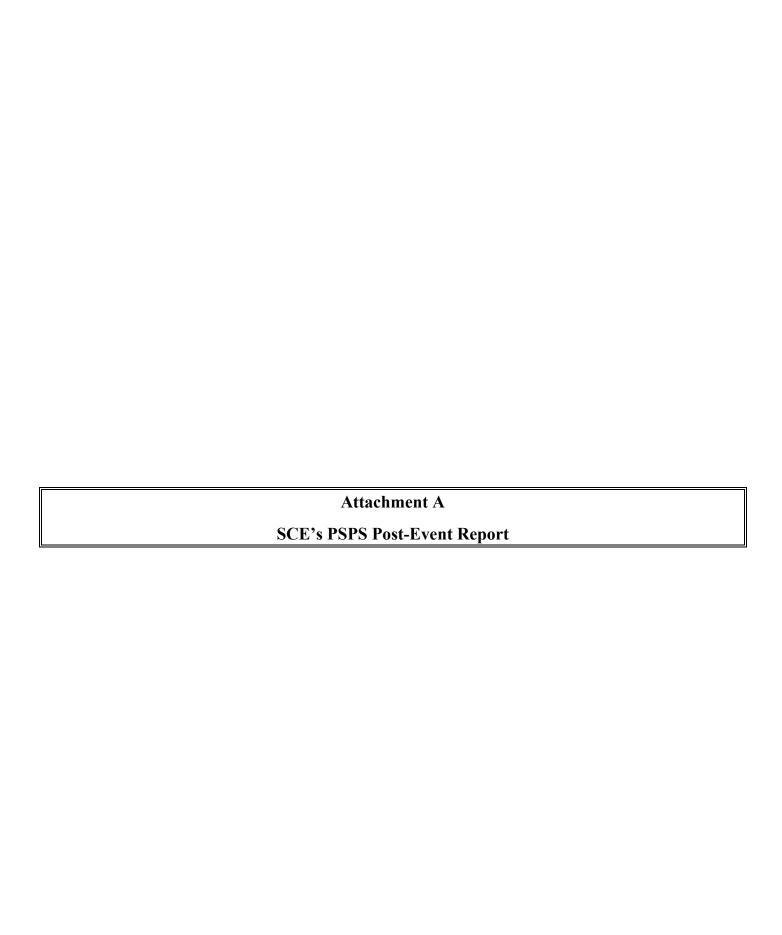
Rosemead, California 91770

Telephone: (626) 302-3477

E-mail: Olivia.Samad@sce.com

Dated: October 24, 2024

2





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

October 24, 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 – October 07, 2024, to October 11, 2024

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 October 7, 2024, and concluded on October 11, 2024.

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

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

Sincerely,

— DocuSigned by:

Marissa Blunschi

/s/ Marissa Blunschi

Marissa Blunschi

Principal Manager, Regulatory Relations

cc: ESRB ComplianceFilings@cpuc.ca.gov

601 Van Ness Avenue

Suite 2030

San Francisco, California 94102

(415) 929-5530

Fax (415) 929-5544

# Southern California Edison

Public Safety Power Shutoff (PSPS) Post-Event Report October 08, 2024

Filed with: The California Public Utilities Commission

**Submitted to: Director of the Safety and Enforcement Division** 

Dated: October 25, 2024

# **Table of Contents**

Introduction	3
Section 1. Executive Summary	
Section 2. Decision-Making Process	
Section 3. De-Energized Time, Place, Duration and Customers	15
Section 4. Damage and Hazards to Overhead Facilities	16
Section 5. Notification	16
Section 6. Local and State Public Safety Partner Engagement	
Section 7. Complaints and Claims	25
Section 8. Power Restoration Timeline	25
Section 9. Community Resource Centers	26
Section 10. Mitigation to Reduce Impact	28
Section 11. Lessons Learned	28
Attachment A-Public Safety Partner and Customer Notification Scripts	30
Attachment B-Quantitative and Qualitative Factors in PSPS Decision-Making Technical Paper	53
Attachment C-PSPS Event Data Workhook	5/

### Introduction

SCE submits this post-event report 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).

This report addresses the potential de-energization event that started on October 7, 2024. SCE activated the PSPS IMT at 1:00 p.m. and ended on October 11, 2024, at 12:30 p.m. in Inyo, Los Angeles, Mono, and San Bernardino Counties in which no customers were de-energized. This report explains SCE's decision to call, sustain, and conclude the potential de-energization event, and provides detailed information to facilitate the Commission's evaluation of SCE's compliance with applicable PSPS guidelines.

SCE recognizes that de-energizations pose significant challenges and hardships for our customers and the public safety partners that provide services to the affected communities. SCE's decision to activate its PSPS protocol is based on 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 is committed to continuously improving its PSPS processes and welcomes input from customers, public safety partners, community representatives, and local governments on ways to minimize the impact of PSPS events.

<sup>&</sup>lt;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

List of counties in scope	Total distribution circuits in scope		Total Community resource centers (including CCVs)
Inyo, Los Angeles, Mono, and San Bernardino	14	0	4

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 October 7, 2024, SCE's meteorologists identified the potential for dangerous fire weather conditions due to onshore flow across the Sierra and desert-facing slopes of the Southern California Mountains beginning on October 9, 2024, in portions of Inyo, Los Angeles, Mono, and San Bernardino Counties and continuing through October 11. On the morning of October 8, meteorologists expanded the period of concern to include October 8 for an isolated area in San Bernardino County. 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. During this consultation, the GACC indicated agreement with SCE's forecast of elevated fire weather.

In response to the forecasted fire weather conditions, SCE activated its dedicated PSPS Incident Management Team (IMT) on October 7, 2024, at 1:00 p.m. to manage this event and began sending advance notifications of potential PSPS to Public Safety Partners, Critical Facilities and Infrastructure customers, and other customers in scope<sup>3</sup>. Ultimately, fire weather conditions did not materialize during the Period of Concern and SCE did not de-energize any customers during this high threat event.

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.

<sup>&</sup>lt;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.

<sup>&</sup>lt;sup>3</sup> See Attachment C – PSPS Event Data Workbook for additional details related to customer notifications during this event.

Table 1: PSPS Event Summary<sup>4</sup>

<b>PSPS Event</b> 3	Summary									
	Total Customers			De-energized Number of Circuits			mber of Circuits			
PSPS Notified	De-energized	Cancelled	MBL Customers	Number of Counties	Number of Tribes	Critical Facilities and Infrastucture	Transmission De-energized	Distribution Circuits in Scope	Distribution Circuits De-energized	Damage/Hazard Count
6873	0	6873	0	0	0	0	0	14	0	0

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

N/A. SCE did not de-energize any circuits during this high threat event.

# Section 2. Decision-Making Process

1. A table showing factors considered in the decision to shut off power for each circuit deenergized, including sustained and gust wind speeds, temperature, humidity, and moisture in the vicinity of the de-energized circuits.<sup>5</sup>

### **Table 2: Factors Considered in Decision to De-Energize**

N/A. SCE did not de-energize any circuits during this high threat event because forecasted fire weather conditions were not observed during the Period of Concern.

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 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

<sup>&</sup>lt;sup>4</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).

<sup>&</sup>lt;sup>5</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 deenergization 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>&</sup>lt;sup>6</sup> SCE's detailed technical paper, Quantitative and Qualitative Factors for PSPS Decision-Making, can be found at https://energized.edison.com/psps-decision-making and in Attachment B of this report.

specific risks of the event. This is particularly important for large events where many circuits must be evaluated simultaneously.

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

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

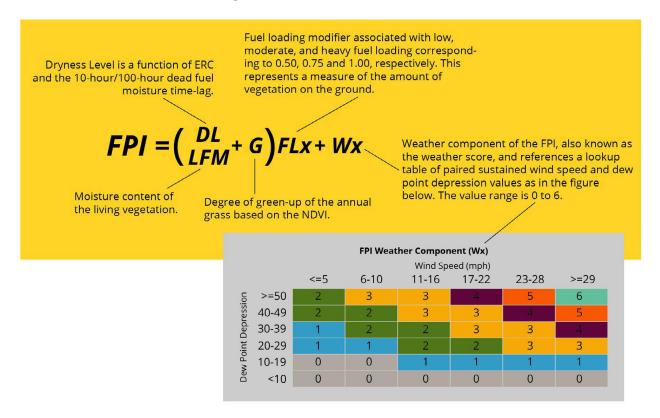
FPI is calculated using the following inputs:

- 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." 8

<sup>&</sup>lt;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.

<sup>&</sup>lt;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.

### Visual 1. Fire Potential Index Equation9



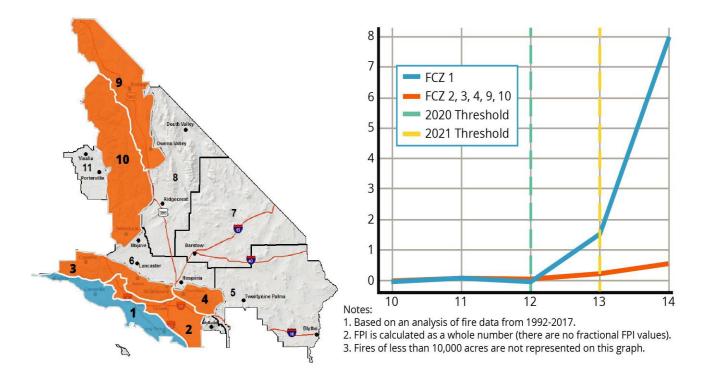
Initially, SCE set the FPI threshold to 12 for all circuits in SCE's high fire risk areas. Starting on Sept. 1, 2021, SCE raised the FPI to 13 for most areas and most events based on a risk analysis of historical fire data. <sup>10</sup> Exceptions where the FPI threshold continued to be set at 12 include:

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

<sup>&</sup>lt;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, pages 25-27) and modified to serve SCE's needs, including the insertion of the Live Fuel Moisture variable.

<sup>&</sup>lt;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.

<sup>&</sup>lt;sup>11</sup> SCE's 2023-2025 Wildfire Mitigation Plan Update dated April 2, 2024.



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

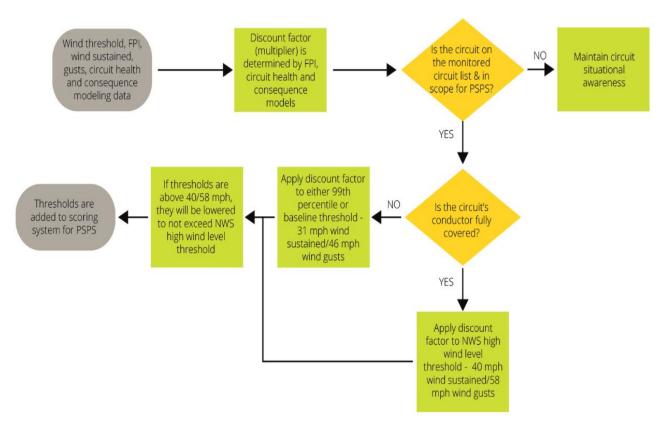
In 2023, SCE identified certain remote and isolated areas (less than 1% of SCE's high fire risk area) where an FPI threshold of 11 may be appropriate to mitigate additional fire risk created by unique factors such as extremely limited egress and constrained fire suppression capability. SCE does not anticipate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

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

Visual 3. PSPS Decision-Making Flowchart/Diagram



If actual conditions suggest more risk, or in large-scale events when many circuits are under consideration for shutoffs, the de-energization thresholds may be lowered (discounted), meaning power on a circuit will be turned off at lower wind speeds. This step prioritizes the circuits that represent the highest risk to be evaluated for de-energization before circuits at lower risk. Conversely, de-energization thresholds are raised for segments or circuits that have had covered conductor installed. The de-energization threshold for segments with covered conductor is 40 mph sustained/58 mph gusts, which aligns with the 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**

N/A. SCE did not de-energize any areas during this high threat event.

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

 Wind: Sustained winds of 20 to 35 mph and wind gusts of 35 to 45 mph were forecast for Inyo, Los Angeles, Mono, and San Bernardino Counties during this event, with isolated areas of higher gusts up to 55 mph. Peak observed wind speeds in areas of concern were 25 mph sustained and 43 mph gusts during this event.

- Relative humidity: Relative humidity during this event was forecast to be between 5% and 15% across Inyo, Los Angeles, Mono, and San Bernardino Counties concurrent with the strong winds. Actual observed relative humidity ranged from 11% to 15% 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 potentially de-energize customers during this high threat 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 Inyo, Los Angeles, Mono, and San Bernardino Counties.
- 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 high threat 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 six thousand (6,000) acre range in the areas of concern during the Period of Concern.
- National Weather Service-issued watches and warnings for areas of concern in SCE service territory. There were no watches or warnings issued during this PSPS event.

SCE considered the following factors when deciding to conclude this high threat 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. Deenergization thresholds were not met for this high threat event as detailed in Table 2: Factors Considered in De-Energization in Section 2-1. See also Section 2-2 for additional details.
- Relative humidity levels. Minimum relative humidity levels for circuits during the Period of Concern ranged from 11% to 15% for this event.

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.

N/A. SCE did not de-energize during this event.

SCE assesses and compares potential public safety risks associated with proactive deenergization (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> Inputs into this Tool include, among others, in-event weather, and wildfire simulation models, as well as circuit specific data. The results of these circuit specific assessments 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 these assessments in making de-energization decisions to ensure the wildfire risk (PSPS benefit in avoiding a wildfire) outweighs the risk associated with PSPS for each circuit in scope.

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:

<sup>&</sup>lt;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 FireRisk (formally FireCast) and are subject to being updated as the modeling improves.

<sup>&</sup>lt;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. FireRisk (formally FireCast) is specifically designed to forecast ignition risk associated with electric utility assets over a 7-day horizon based on expected short-term weather conditions.

Risk Attribute	Wildfire Consequences	PSPS Consequences
Safety	SCE calculates the estimated number of fatalities and serious injuries based on a forecast of impacted population within the Technosylva wildfire consequence simulation. This number, in turn, is converted into the Safety index.	SCE leverages epidemiological studies and information drawn from past widespread power outage events including the 2003 Northeast Blackout, the 2011 Southwest Blackout, and the IOUs' 2019 PSPS postevent reports. <sup>15</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.
Reliability	SCE assumes 24 hours without power per customer on each circuit in scope due to wildfire. This duration was used to maintain consistency with Technosylva 24-hour fire propagation simulation, as well as the PSPS impact duration.	SCE estimates the total customer minutes interrupted (CMI) due to proactive deenergization 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.
Financial	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>16</sup>	SCE conservatively assumes \$250 <sup>17</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

<sup>&</sup>lt;sup>15</sup> See, e.g., Anderson, G.B., Bell, M.B (2012). Lights Out: Impact of the August 2003 Power Outage on Mortality in New York, NY, Epidemiology 23(2) 189-193. doi: 10.1097/EDE.0b013e318245c61c.

<sup>&</sup>lt;sup>16</sup> Suppression costs are based on a five-year average of California's reported wildfire suppression costs from 2016-2020. Restoration costs are assumed to be \$1,227/acre based on research papers published by the Bureau of Land Management.

<sup>&</sup>lt;sup>17</sup> SCE utilizes \$250 per customer, per de-energization event to approximate potential financial losses on average, recognizing that some customers may experience no financial impact, while other customers' losses may exceed \$250. The \$250 value is a conservative assumption used for the limited purpose of estimating the potential financial consequences of PSPS as one of many inputs into SCE's PSPS In-Event Risk Comparison Tool. It is not an acknowledgment that any given customer has or will incur losses in this amount, and SCE reserves the right to argue otherwise in litigation and other claim resolution contexts, as well as in CPUC regulatory proceedings.

Risk Attribute	Wildfire Consequences	PSPS Consequences
		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>18</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

<sup>&</sup>lt;sup>18</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

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

N/A. SCE did not de-energize any areas during this high threat event.

The comparison of PSPS Risk to Wildfire Risk is used to assist in de-energization decision-making. It was not applied in this event because no circuits met the threshold for de-energization.

# 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 and relay settings). 19 In addition, SCE has implemented operational practices including enhanced inspections, vegetation management, and fire climate zone operating restrictions<sup>20</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>21</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 abovedescribed 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. 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

<sup>&</sup>lt;sup>19</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>20</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.

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.

In this high threat event, there was a consistent downward wind forecast trend. As a result, no circuits were meeting FPI criteria for de-energization. Therefore, SCE ultimately did not have to de-energize any customers.

# 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 October 7, 2024, at 1:00 p.m. and ended for all circuits in scope on October 11, 2024, at 12:30 p.m. when SCE demobilized the dedicated Incident Management Team. SCE did not de-energize any customers during this high threat event. This event encompassed impacted circuits in Inyo, Los Angeles, Mono, and San Bernardino 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.

N/A. SCE did not de-energize any circuits during this high threat event.

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.

### **Table 5: Circuits De-Energized**

N/A. SCE did not de-energize any circuits during this high threat event.

# 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.

N/A. No wind-related damage or hazards were identified related to this high threat event.

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>22</sup>

### **Table 6: Damage and Hazards**

N/A. No wind-related damage or hazards were identified related to this high threat event.

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.

N/A. No wind-related damage or hazards were identified related to this high threat event.

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

N/A. No wind-related damage or hazards were identified related to this high threat event.

### 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>23</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 <a href="www.sce.com/psps">www.sce.com/psps</a> 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

<sup>&</sup>lt;sup>22</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.

<sup>&</sup>lt;sup>23</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 PSPS-related outreach via flyers and trade publications to increase awareness of PSPS among building/property managers who are not account holders. SCE also instituted an address-level alert program, which allows non-SCE account holders (such as building/property managers) to sign up for PSPS alerts for specific addresses.

been made available on the SCE website. Please see the table below for a description of the types of notices provided during this high-threat event.

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

<sup>&</sup>lt;sup>24</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>24</sup>			
	water/wastewater and telecommunications providers, CBOs and paratransit agencies serving the AFN community).				
Event Avoided- Cancellation <sup>25</sup>	Critical Facilities & Infrastructure (including Community Choice Aggregators, hospitals, water/wastewater, and telecommunications providers). Other Customers (including multi-family building account	PSPS event cancelled-no de- energization expected.			

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

SCE attempts to send notifications to 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 upon the decision to cancel the de-energization or remove from scope.

3. For those customers where positive or affirmative notification was attempted, use the following table to report the accounting of the customers (which tariff and/or access and functional needs population designation), the number of notification attempts made, the timing of attempts, who made the notification attempt (utility or public safety partner) and the number of customers for whom positive notification was achieved. "Notification attempts made" and "Successful positive notification" must include the unique number of

<sup>&</sup>lt;sup>25</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.

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>26</sup>

<b>Positive Notification</b>					
Category	Total Number of Customers	Timing of Attempts	Notification Attempts	Successful Positive Notification	Who made the notification
Medical Baseline	256	DAILY	273	256	SCE
Self Certified	53	DAILY	58	53	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, 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.

SCE attempts 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>&</sup>lt;sup>26</sup> The "Total Number of Customers" metric reflects the total number of MBL and Self-Certified customers in scope for the PSPS event. The "Notification Attempts" metric reflects the count of MBL and Self-Certified customers – both in scope and 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** 

Breakdown of N	Breakdown of Notification Failures				
Notifications sent to	Notification Failure Description	Number of Entities or Customer Counts	Explanation		
	Entities who did not receive 48- to 72-hour advance notification.	N/A			
	Entities who did not receive 1-4-hour imminent notification.	N/A			
Public Safety Partners excluding	Entities who did not receive any notifications before deenergization.	N/A			
Critical Facilities and Infrastructure	Entities who were not notified immediately before reenergization.	N/A			
	Entities who did not receive cancellation notification within two hours of the decision to cancel.	0			
	Facilities who did not receive 48-72-hour advance notification.	N/A			
	Facilities who did not receive 1-4 hour of imminent notifications.	N/A			
	Facilities who did not receive any notifications before deenergization.	N/A			
Critical Facilities and	Facilities who were not notified at de-energization initiation.	N/A			
Infrastructure	Facilities who were not notified immediately before reenergization.	N/A			
	Facilities who were not notified when re-energization is complete.	N/A			
	Facilities who did not receive cancellation notification within two hours of the decision to cancel.	0			
All other affected customers	Customers who did not receive 24–48-hour advance notifications.	N/A			

Breakdown of I	Breakdown of Notification Failures						
Notifications sent to	Notification Failure Description	Number of Entities or Customer Counts	Explanation				
	Customers who did not receive 1-4-hour imminent notifications.	N/A					
	Customers who did not receive any notifications before deenergization.	N/A					
	Customers who were not notified at de-energization initiation.	N/A					
	Customers who were not notified immediately before reenergization.	N/A					
	Customers who were not notified when re-energization is complete.	N/A					
	Customers who did not receive cancellation notification within two hours of the decision to cancel.	6	no contact information / message send error				

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

Six (6) customers did not receive cancellations notifications due to customer move-ins/moveouts during the event. SCE remains committed to making all reasonable efforts to provide notifications to all customers affected during PSPS events.

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

N/A. SCE is not aware of any missed or insufficient notification during this high threat event.

### Missed/Insufficient Notification:

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

<u>Incorrect Notification: These are only notices sent in error, not missed notification.</u>

N/A. SCE is not aware of any incorrect notification during this high threat event.

#### **Cancellation Notification:**

With the exception of any missed notifications described in table 9, if applicable, SCE sent cancellation notices to all other 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 forecast fire weather conditions did not materialize in those areas, and the customers were notified of the cancellation after being removed from scope.

# Section 6. Local and State Public Safety Partner Engagement

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

N/A. SCE did not de-energize during this high-threat event.

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

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

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

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 <a href="https://www.sce.com/psps">www.sce.com/psps</a> and

provided this information to public safety partners on its Public Safety Partner Portal (Portal). Though SCE experienced delays initially providing maps via the Public Safety Partner Portal (PSPP) as detailed in the lessons learned, SCE corrected the error and made accurate and timely maps available for the remainder of the event.

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 October 07, 2024, at 12:24 p.m. SCE conducted daily operational briefings with State and local public safety partners, as well as critical infrastructure entities, for the duration of this PSPS event to provide critical incident updates and a forum for resolving issues.

Impacted State and County emergency management agencies and critical infrastructure customers are polled at the close of each event to provide feedback, however only two partners responded to this survey. Of the two respondents, one rated the engagement as average and the other as good.

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

SCE provided notification of this PSPS high-threat 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 Inyo, Los Angeles, Mono, and San Bernardino Counties on October 07, 2024, to alert them to potential PSPS outages in those areas. SCE also provided 24-hour contact information to these agencies if they needed to escalate any unidentified community issues. In partnership with the CBOs, SCE offered services to customers for this PSPS event such as food support, transportation, and temporary accommodations.

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

SCE maintains ten (10) 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 25-100 KW and have an estimated maximum duration of operation of 24-36 hours with a continuous fuel plan to ensure there is no interruption of power while the generators are deployed for usage.

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

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 high-threat 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 high-threat 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 high-threat 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 high-threat event.

Any questions related to the information under this item may be directed to SCE at the following e-mail address: <a href="mailto:SCECEDCustomerSupport@sce.com">SCECEDCustomerSupport@sce.com</a> <sup>27</sup>

<sup>&</sup>lt;sup>27</sup> Although there is no designated contact person for questions, this e-mail inbox is monitored by SCE's Customer Engagement Division.

# Section 7. Complaints and Claims

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

There were twelve (12) reported complaints, and zero (0) claims 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.

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

Nature of Complaints	Number of Complaints
<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.	4
Safety/Health Concern Including, but not limited to complaints regarding difficulties experienced by AFN/MBL populations, traffic accidents due to non-operating traffic lights, inability to get medical help, well water or access to clean water, inability to keep property cool/warm during outage raising health concern	1
Communications/Notifications Including, but not limited to complaints regarding lack of notice, excessive notices, confusing notice, false alarm notice, problems with getting up-to-date information, inaccurate information provided, not being able to get information in the prevalent languages and/or information accessibility, complaints about website, Public Safety Partner Portal, REST/DAM sites (as applicable)	2
Outreach/Assistance Including, but not limited to complaints regarding community resource centers, community crew vehicles, backup power, hotel vouchers, other assistance provided by utility to mitigate impact of PSPS	0
<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.	5
Total	12

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

No claims were received about this event.

## 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.

N/A. SCE did not de-energize any circuits during this high threat event.

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

N/A. SCE did not de-energize any circuits during this high threat event.

# 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** 

Community Resource Centers						
Address	Location Type	Describe the assistance available	Hours of Operations¹ (Date / Time)	Number of Visitors		
Crystal Airport 32810 165th Street East Llano, CA 93544	CCV	Small portable device charging (such as a cell phone, laptop, and small medical devices), chairs, seasonal cooling and heating, PSPS information, snacks, water, ice or ice vouchers, ADA compliant restrooms and customer Resiliency Kits.	10/9/2024 8 AM to 10 PM 10/10/2024 8 AM to 9 PM	39		
Rolling Start 16519 Victor St., #406 Victorville, CA 92395	CRC - Indoor	Small portable device charging (such as a cell phone, laptop, and small medical devices), chairs, seasonal cooling and heating, PSPS information, snacks, water, ice or ice vouchers, ADA compliant restrooms and customer Resiliency Kits.	10/9/2024 8 AM to 10 PM 10/10/2024 8 AM to 10 PM	89		
Calimesa City Hall 908 Park Ave. Calimesa, CA 92320	CCV	Small portable device charging (such as a cell phone, laptop, and small medical devices), chairs, seasonal cooling and heating, PSPS information, snacks, water, ice or ice vouchers, ADA compliant restrooms and customer Resiliency Kits.	10/8/2024 4 PM to 8 PM	0		

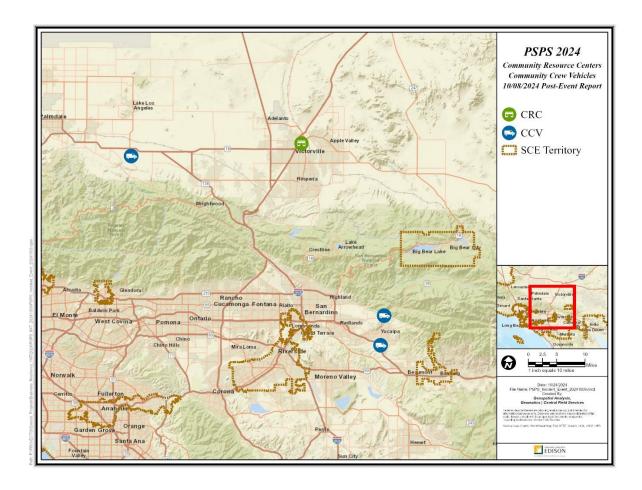
Community Resource Centers						
Address	Location Type	Describe the assistance available	Hours of Operations <sup>1</sup> (Date / Time)	Number of Visitors		
Forestry Station 34701 Mill Creek Rd. Mentone, CA 92359	CCV	Small portable device charging (such as a cell phone, laptop, and small medical devices), chairs, seasonal cooling and heating, PSPS information, snacks, water, ice or ice vouchers, ADA compliant restrooms and customer Resiliency Kits.	10/9/2024 8 AM to 5 PM 10/10/2024 8 AM to 7 PM	2		

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

SCE deployed staff to provide community assistance to a total of four (4) locations listed in the table above... SCE sometimes deviates from the CRC normal hours of operation of 8:00 a.m. to 10:00 p.m. during PSPS events to either follow the Period of Concern (POC) more closely and provide appropriate customer support to best meet the needs of the community or when circuits have been re-energized and customer support is no longer necessary. The CCV site in Los Angeles County was closed at 9:00 p.m. on October 10<sup>th</sup> because the POC had passed, and no customers were de-energized for this event. The CCV site at Calimesa City Hall in Riverside County was added to support customers in the Mentone area who were unexpectedly under consideration for PSPS on October 8<sup>th</sup>. The site was closed at 8:00 p.m. after the POC (which ended at 3:00 p.m.) to continue to provide customer support. SCE's General Area Manager was able to secure this site quickly while simultaneously working with the Customer Care Supervisor Team to identify a site nearer to the circuits, and customers, under consideration for the duration of this event. The replacement site, Forestry Station in Mentone, was opened on October 9<sup>th</sup> and 10<sup>th</sup>; this site was demobilized on October 10<sup>th</sup> after the POC had concluded. The Forestry Station site was open past the POC to continue to provide customer support.

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

N/A. SCE did not de-energize any circuits during this high threat event.



# 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.

N/A. SCE did not de-energize any circuits during this high-threat event.

## 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.

N/A. SCE did not de-energize any circuits during this high-threat event.

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

Lessons Learned					
Issue	Discussion	Resolution			
Public Safety Partner Portal and sce.com did not update upon release of circuits.	Circuits (customers moved), when released, caused a discrepancy with customer count between Public Safety Partner Portal, SCE.com and UC6 (CDP). A short-term fix corrected the numbers.	To correct the issue a longer-term fix is in scope for Q1 2025			

# 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

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

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

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

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

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

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

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

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

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

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

#### Information available for the general public:

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

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

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

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

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

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

#### **COMMENTS:**

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

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

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

\_\_\_\_\_\_

# **Updated Conditions (Update) Notification**

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

# **Notification Subject Line and Message:**

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

# **COMMENTS:**

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

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

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

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

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

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

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

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

Circuit: [CIRCUIT name]

County:

Segment: [if listed]Incorporated City of:

Unincorporated County Area:

COMMENTS:

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

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

# PSPS Shutoff Notification (De-energization notification)

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

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

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

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

Impacted circuits and locations are:

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

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

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

# (Preparation for Restoration)

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

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

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

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

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

Typically, power is restored in up to 8 hours. Exceptions include circuits requiring daylight for inspection and circuits that need repair. Restoration may be done in segments, meaning some parts of the circuit will be restored before others. Updates will be posted on <a href="https://www.sce.com/psps">www.sce.com/psps</a> and the Public Safety Partner Portal.

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

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

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

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

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

# Public Safety Power Shutoff update notification for official use:

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

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

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

Page 37 | 54

# Cancellation no longer in scope

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

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

# **Notification Subject Line and Message:**

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

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

Circuit: [CIRCUIT name]

County:

Segment: [if listed]Incorporated City of:

Unincorporated County Area:

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

# **Event Concluded Notification**

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

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

# SCE PSPS Event Concluded in [COUNTY NAME].

Public Safety Power Shutoff update notification for official use:

If customers were de-energized, power has been restored and the PSPS event has concluded.

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

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

#### **PSPS Variable Notification Templates**

6/13/2024

1 | Advanced Initial [Typically 72 Hours Prior]

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

# TEXT/SMS

SCE Advanced PSPS Alert: High winds and fire conditions are forecast from 'Day of week' 'morning/afternoon/evening' through 'End Day of week' 'morning/afternoon/ evening'. We may have to shut off power. 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, 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, 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@scewebservices.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

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

# 2 | Initial Notification [48 HOURS BEFORE] ALERT

# TEXT/SMS

SCE PSPS Alert: High winds and fire conditions are forecast from 'Day of week' 'morning/afternoon/evening' through 'End Day of week' 'morning/afternoon/evening'. We may have to shut off your power to decrease risk during this time. We are working to reduce the number of customers affected and will keep you updated. Visit <a href="sce.com/psps">sce.com/psps</a> for the latest information. For downed power lines, call 911. View in more languages: <a href="https://www.sce.com/PSPSInitial">www.sce.com/PSPSInitial</a>

# 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 psps 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@scewebservices.com

Southern California Edison

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

 ESPAÑOL
 한국어
 中文
 TIÉNG VIÊT
 TAGALOG

 1-800-441-2233
 1-800-628-3061
 1-800-843-8343
 1-800-327-3031
 1-800-655-4555

# MORE LANGUAGES

High winds and dangerous fire conditions are forecast from <a href="https://Day of week">Day of week</a> <a href="https://day.org/morning/afternoon/evening">Amorning/afternoon/evening</a> through <a href="https://day.org/morning/afternoon/evening">Amorning/afternoon/evening</a> through <a href="https://day.org/morning/afternoon/evening">Amorning/afternoon/evening</a> <a href="https://day.org/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/psps.

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

This alert applies to the following address(es):

Customer Address Service Account Meter Number Rate

- For information about preparing for a power outage, visit 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 <a href="sce.com/psps">sce.com/psps</a> for the latest information and availability of community resources. For downed power lines, call 911. View in more languages: <a href="www.sce.com/PSPSUpdate">www.sce.com/PSPSUpdate</a>

### **VOICE**

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

# **EMAIL**

Subject: SCE Public Safety Power Shutoff (PSPS) Warning

From: do not reply@scewebservices.com Southern California Edison

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

<u>ESPAÑOL</u> <u>한국어</u> <u>中文</u> <u>TIÊNG VIÊT</u> <u>TAGALOG</u> 1-800-441-2233 1-800-628-3061 1-800-843-8343 1-800-327-3031 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.

This alert applies to the following address(es):

Customer Address Service Account Meter Number Rate

- For information about preparing for a power outage, visit 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 | CANCELLATION

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

# TEXT/SMS

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

# VOICE

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

# **EMAIL**

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

From: do not reply@scewebservices.com Southern California Edison

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

<u>ESPAÑOL</u> <u>한국어</u> <u>中文</u> <u>TIÊNG VIÊT</u> <u>TAGALOG</u> 1-800-441-2233 1-800-628-3061 1-800-843-8343 1-800-327-3031 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

If power is off, please call 1-800-611-1911 or visit <a href="sce.com/psps">sce.com/psps</a>.

For more information about PSPS and wildfire safety, please visit <a href="sce.com/psps">sce.com/psps</a>.

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

#### TEXT/SMS

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

#### **VOICE**

#### **EMAIL**

Subject: SCE Public Safety Power Shutoff (PSPS) Expected

From: do not reply@scewebservices.com Southern California Edison

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

<u>ESPAÑOL</u> <u>한국어</u> <u>中文</u> <u>TIÊNG VIÊT</u> <u>TAGALOG</u> 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 <u>^End Day of week^ ^morning /afternoon /evening^</u>. 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.

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

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

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 <u>Pend Day of week Pmorning</u> afternoon evening. When weather improves, we will inspect our lines for damage before we restore power. This is expected to take up to 8 hours but could take longer if we need daylight for safe inspections or if we find damage. Visit <u>sce.com/psps</u> for the most up to date info on restoration timing and SCE community resources in your area. Remember to turn off/unplug appliances or equipment that could restart automatically. For downed power lines, call 911. Thanks for your patience. View in more languages: <u>www.sce.com/PSPSShutoff</u>

#### VOICE

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

## **EMAIL**

**Subject:** SCE Public Safety Power Shutoff (PSPS)

From: do\_not\_reply@scewebservices.com Southern California Edison

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

<u>ESPAÑOL</u> <u>한국어</u> <u>中文</u> <u>TIÊNG VIÊT</u> <u>TAGALOG</u> 1-800-441-2233 1-800-628-3061 1-800-843-8343 1-800-327-3031 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 <u>\*End Day of week\* \*morning/ afternoon/ evening\*.</u> When the weather improves, we will inspect our lines for damage before we restore power. This is expected to take up to 8 hours but could take longer if we need daylight for safe inspections or if we find damage. 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 <u>sce.com/psps</u> 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

# 7 | CONTINUED SHUTOFF - NEXT DAY SHUTOFF UPDATE

(SENT IN THE AM TO OVERNIGHT OUTAGES)

# SMS/TEXT

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

### VOICE

SCE Continued PSPS. To continue in English, press 1. [Spanish press 2], all other languages press 3.... Thank you for your continued patience during this Public Safety Power Shutoff. High winds are forecast to continue through <u>^End Day of week^ ^morning /afternoon/ evening^</u>. Before we restore power, we will inspect our lines for damage. This is expected to take up to 8 hours but could take

longer if we need daylight for safe inspections or if we find damage. Visit sce dot com slash psps for the latest information on restoration and availability of community resources in your area. For downed power lines, call 911.

#### **EMAIL**

**Subject:** SCE Continued Public Safety Power Shutoff (PSPS)

From: do not reply@scewebservices.com Southern California Edison

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

<u>ESPAÑOL</u> <u>한국어</u> <u>中文</u> <u>TIÊNG VIÊT</u> <u>TAGALOG</u> 1-800-441-2233 1-800-628-3061 1-800-843-8343 1-800-327-3031 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 <u>\*End Day of week\* \*morning /afternoon/ evening\*</u>. When the weather improves, we will inspect our lines for damage before we restore power. This is expected to take up to 8 hours but could take longer if we need daylight for safe inspections or if we find damage. Visit <a href="sce.com/psps">sce.com/psps</a> for the latest information on restoration and SCE community resources in your area. We understand that any outage is an inconvenience. Thank you again for your continued patience as we work to keep your community safe!

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

This alert applies to the following address(es):

Customer Address Service Account Meter Number Rate

# 8 | PREPARE FOR RESTORATION

# SMS/TEXT

SCE PSPS Update: Winds have died down and we are starting to inspect our lines for damage. Restoration is expected to take up to 8 hours but could take longer if we need daylight for safe inspections or find damage. For updated restoration estimates in your area and for location of SCE community resources visit <a href="mailto:sce.com/psps">sce.com/psps</a>. 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

#### VOICE

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

### **EMAIL**

Subject: SCE Public Safety Power Shutoff Update

From: do not reply@scewebservices.com Southern California Edison

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

<u>ESPAÑOL</u> <u>한국어</u> <u>中文</u> <u>TIÊNG VIÊT</u> <u>TAGALOG</u> 1-800-441-2233 1-800-628-3061 1-800-843-8343 1-800-327-3031 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 <a href="sce.com/psps">sce.com/psps</a>. 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 9 | RESTORED NO LONGER IN SCOPE (RESTORED & CANCELLATION [NO MORE RISK OF PSPS])

### SMS/TEXT

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

### **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 한국어 中文 TIÊNG VIÊT TAGALOG
1-800-441-2233 1-800-628-3061 1-800-843-8343 1-800-327-3031 1-800-655-4555

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 <a href="mailto:sce.com/outage">sce.com/outage</a>. 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

For more information about PSPS and wildfire safety, please visit <a href="mailto:sce.com/psps">sce.com/psps</a>.

# 10 | RESTORED IN SCOPE - RISK OF PSPS REMAINS

# SMS/TEXT

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

#### **VOICE**

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

#### **EMAIL**

Subject: SCE Public Safety Power Shutoff Update: Power restored; PSPS still in effect

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

<u>ESPAÑOL</u> <u>한국어</u> <u>中文</u> <u>TIÊNG VIÊT</u> <u>TAGALOG</u> 1-800-441-2233 1-800-628-3061 1-800-843-8343 1-800-327-3031 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 <u>^End Day of week^ ^morning/afternoon/evening^</u> we may have to shut off your power again. We will keep you updated as weather conditions change. If your power is still off, please call 1-800-611-1911 or visit sce.com/psps.

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

For more information about PSPS and wildfire safety, please visit <a href="sce.com/psps">sce.com/psps</a>.

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



# QUANTITATIVE AND QUALITATIVE FACTORS FOR PSPS DECISION-MAKING

Revision: November 6, 2023



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

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

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

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

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

# REDUCING THE NEED FOR PUBLIC SAFETY POWER SHUTOFFS

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

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

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

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

# **DECISION-MAKING**

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

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

### **THRESHOLDS**

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

# SCE PSPS TERMINOLOGY

**Consequence score:** Used to quantify risk in decision-making

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

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

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

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

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

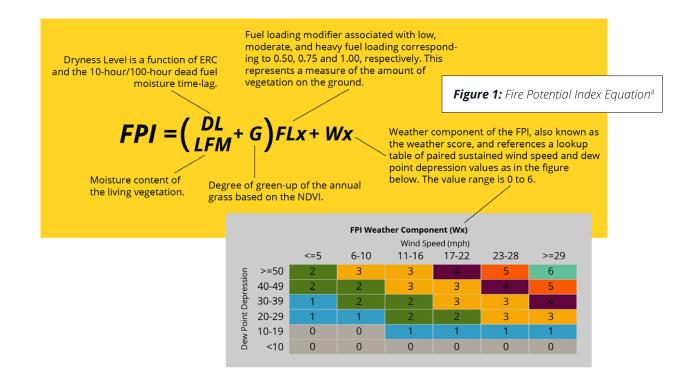
**Period of concern**: The forecasted period, including start and end time, as measured in three-hour time blocks.

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

### FIRE POTENTIAL INDEX

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

- **Wind speed**—Sustained wind velocity at 6 meters above ground level.
- **Dew point depression**—The dryness of the air as represented by the difference between air temperature and dew point temperature at 2 meters above ground level.
- **Energy release component (ERC)**—"The available energy (BTU) per unit area (square foot) within the flaming front at the head of a fire ... reflects the contribution of all live and dead fuels to potential fire intensity."<sup>2</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>3</sup>



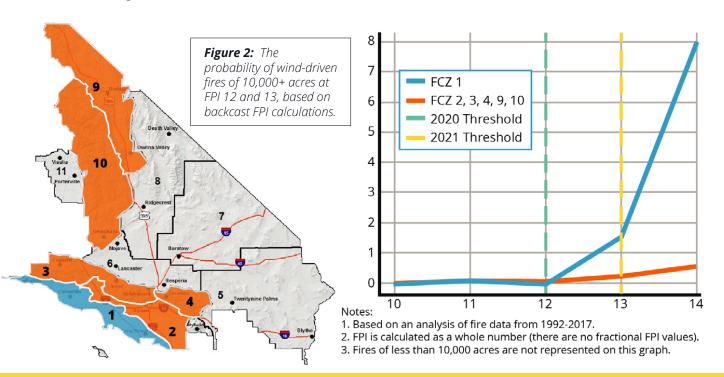
The variables used to generate the FPI score come from the Weather Research and Forecasting (WRF) model<sup>5</sup>, which has been customized for SCE to replicate our specific geography and weather conditions. Individual components of the FPI score are forecast hourly for each 2 km by 2 km grid cell. The model is run twice a day and provides an hourly forecast for five days forward. The forecasts associated with each of the FPI components for each grid cell are then summarized by circuit for three-hour intervals.

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

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

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

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



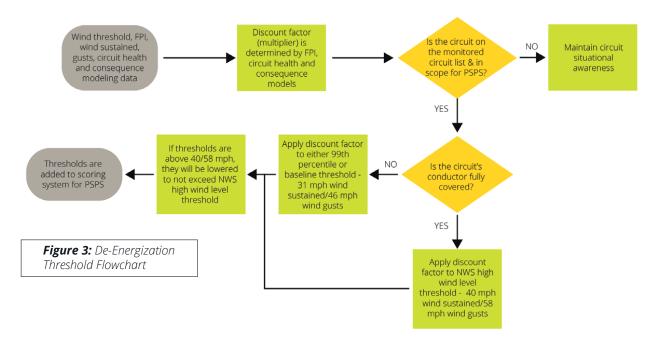
In 2023, SCE identified certain remote and isolated areas (less than 1% of SCE's high fire risk area) where an FPI threshold of 11 may be appropriate to mitigate additional fire risk created by unique factors such as extremely limited egress and constrained fire suppression capability. SCE does not anticipate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

#### WIND SPEED

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

### **CALCULATING DE-ENERGIZATION THRESHOLDS**

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



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

<sup>\*</sup>top 1% each year, based on 10 years of data

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

## **TOOLS AND TECHNOLOGIES**

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

# PRE-PLANNING (PRIOR TO WILDFIRE SEASON)

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

# **CIRCUIT SEGMENT REVIEWS**

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

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

# SWITCHING PLAN DEVELOPMENT

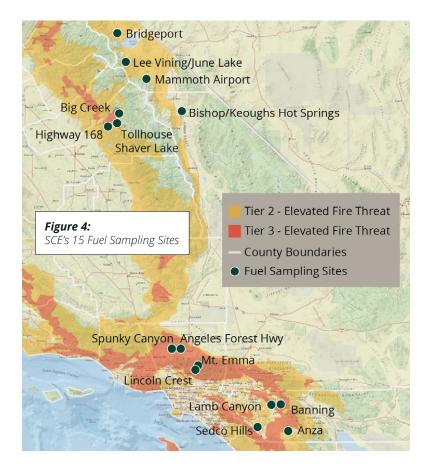
Every circuit in SCE's high fire risk area has ties to other circuits. This provides flexibility to potentially isolate customers from high fire risk areas to minimize customer impacts to the smallest extent possible. SCE develops switching plans to determine whether circuit segments could be transferred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

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

#### **FUEL MOISTURE ANALYSIS**

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

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



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

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

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

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

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

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

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

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

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

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

# **EVENT MANAGEMENT PLANNING**

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

**Table 1:** Complexity Factors

Table 1. Complexity ractors	
Criteria	Impacts
Number of distribution circuits in scope (primary circuits)	Increased number of customer and public safety partner notifications requires coordination to ensure alignment between functional groups.
Sub-transmission circuits in scope	De-energizing sub-transmission circuits could potentially create significant customer impacts and local SCE-system reliability issues.
Transmission circuits in scope	Potential for significant customer impacts and reliability issues.
Significant number of circuits forecasted to exceed de-energization thresholds	<ol> <li>Requires additional staffing to support higher volume of individual de-energization decisions at the circuit segment level.</li> <li>Stresses resource availability to manage restoration in the field.</li> </ol>
Large number of counties/ large geographic spread	Increases resource needs. Overextends customer care resources.
Large customer count	Increases demand on customer care resources.
Customer demographics	A high number of access and functional needs customers and/or critical infrastructure providers increases level of support provided by SCE.
Complex/concurrent incidents	Intersecting impacts such as fires, extreme heat or wind-related outages require increased coordination with public safety partners.
Multi-day events	Multi-day events are a significant burden on impacted customers. Providing temporary relief requires planning and significant resources in the field.
Number of circuits close to (below) MCL criteria threshold	Risk of additional circuits that could potentially come into scope and rapidly.

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

### PRE-PATROLS IN THE FIELD

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

#### **COORDINATION**

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

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

### **CUSTOMER NOTIFICATIONS**

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

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

## IN-EVENT RISK CALCULATION

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

# IN-EVENT DECISION-MAKING

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

#### LIVE FIELD OBSERVATIONS

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

#### ACE TEAM DECISION-MAKING PROCESS

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

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

# **IMMINENT DE-ENERGIZATION NOTIFICATIONS**

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

#### ADDRESSING PUBLIC SAFETY CONCERNS

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

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

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

### PATROL AND RE-ENERGIZATION

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

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

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

# **NEXT STEPS FOR PSPS DECISION-MAKING**

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

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

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

# **REFERENCES**

- 1. Cal Fire. 2020. "Top 20 Largest California Wildfires." ca.gov. Nov. 3. Accessed April 14, 2021. https://www.fire.ca.gov/stats-events/.
  - Cal Fire. 2020. "Top 20 Most Destructive California Wildfires." ca.gov. Nov. 3. Accessed April 14, 2021. https://www.fire.ca.gov/media/t1rdhizr/top20\_destruction.pdf.
- 2. U.S. Department of Agriculture. n.d. "Energy Release Component (ERC) Fact Sheet." Forest Service. Accessed April 14, 2021. <a href="https://www.fs.usda.gov/Internet/FSE\_DOCUMENTS/stelprdb5339121.pdf">https://www.fs.usda.gov/Internet/FSE\_DOCUMENTS/stelprdb5339121.pdf</a>.
- 3. U.S. Department of the Interior. n.d. Landsat Normalized Difference Vegetation Index. Accessed April 14, 2021. <a href="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.</a>
- 4. Fire Potential Index adapted from San Diego Gas & Electric (<a href="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</a>, pages 25-27) and modified to serve SCE's needs, including the insertion of the Live Fuel Moisture variable.
- 5. National Center for Atmospheric Research. 2021. WRF Weather Research & Forecasting Model. Accessed April 14, 2021. <a href="https://www.mmm.ucar.edu/weather-research-and-forecasting-model">https://www.mmm.ucar.edu/weather-research-and-forecasting-model</a>.
- 6. 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. <a href="https://doi.org/10.2737/RDS-2013-0009.4">https://doi.org/10.2737/RDS-2013-0009.4</a> Supplemented with 2016-2017 ignition data supplied directly by CalFIRE via email.
- 7. Southern California Edison. 2021. 2021 Wildfire Mitigation Plan Update. February 5. Accessed August 26,2021. <a href="https://www.sce.com/sites/default/files/AEM/Wildfire%20Mitigation%20Plan/2021/SCE%202021%20WMP%20Update.pdf">https://www.sce.com/sites/default/files/AEM/Wildfire%20Mitigation%20Plan/2021/SCE%202021%20WMP%20Update.pdf</a>.
- 8. National Weather Service. 2013. Beaufort Wind Scale. March 5. Accessed April 14, 2021. https://www.wpc.ncep.noaa.gov/html/beaufort.shtml.
- 9. California Public Utilities Commission. 2017. General Order 95 Rule 18. Dec. 21. Accessed April 14, 2021. https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M215/K830/215830213.PDF.

Online appendix (including May 2021 draft) is available at <a href="SCE.com/PSPSDecisionmakingAppendices">SCE.com/PSPSDecisionmakingAppendices</a>



Attachment C-PSPS Event Data Workbook

# **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 the penalty of perjury that the foregoing is true and correct.

Executed on this 23<sup>rd</sup> day of October 2024 in Rancho Palos Verdes, California

Michael Marelli

Mike Marelli

Vice President,

**Operational Services** 

# 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

# **CERTIFICATE OF SERVICE**

I hereby certify that, pursuant to the Commission's Rules of Practice and Procedure, I have this day served a true copy of **SOUTHERN CALIFORNIA EDISON COMPANY'S** (U 338-E) PUBLIC SAFETY POWER SHUTOFF POST-EVENT REPORT FOR OCTOBER 8, 2024 HIGH THREAT EVENT on all parties identified on the attached service lists for R.18-12-005 and R.18-10-007. Service was effected by transmitting copies via e-mail to ALJs Regina DeAngelis and Valerie Kao and all parties who have provided an e-mail address.

Executed on October 24, 2024, at Los Angeles, California.

/s/ Sylvia Valdez

Sylvia Valdez

SOUTHERN CALIFORNIA EDISON COMPANY 2244 Walnut Grove Avenue Post Office Box 800 Rosemead, California 91770



## CALIFORNIA PUBLIC UTILITIES COMMISSION **Service Lists**

PROCEEDING: R1812005 - CPUC - OIR TO EXAMIN

FILER: CPUC **LIST NAME: LIST** 

LAST CHANGED: OCTOBER 22, 2024

**Download the Comma-delimited File About Comma-delimited Files** 

#### **Back to Service Lists Index**

### **Parties**

CHARLES H. CARRATHERS III ASSOCIATE GENERAL COUNSEL

FRONTIER EMAIL ONLY

EMAIL ONLY, CA 00000

FOR: FRONTIER

VERA YAKOVLEVA REGULATORY AND LEGISLATIVE POLICY MGR

REDWOOD COAST ENERGY AUTHORITY EMAIL ONLY

EMAIL ONLY, CA 00000

FOR: REDWOOD COAST ENERGY AUTHORITY

ROBERT E. RALGAND

ATTORNEY COUNTY OF L.A., DEPT. OF PUBLIC HEALTH

500 W. TEMPLE STREET, STE. 602 LOS ANGELES, CA 90012

FOR: COUNTY OF LOS ANGELES, DEPARTMENT

OF PUBLIC HEALTH (LACDPH)

RITTA MERZA

CALIF PUBLIC UTILITIES COMMISSION

LEGAL DIVISION

320 West 4th Street Suite 500 Los Angeles, CA 90013 FOR: PUBLIC ADVOCATE OFFICE

WILLIAM E. NAYLOR COMMUNITY ADVOCATES 1639 OAK DRIVE TOPANGA, CA 90290

FOR: JANE E. TERJUNG & WILLIAM E. NAYLOR AGOURA HILLS, CA 91301-1601

TIMOTHY K. CLARK

SR. ATTORNEY

PACIFICORP (ROCKY MOUNTAIN POWER)

.....

EMAIL ONLY

EMAIL ONLY, CA 00000

FOR: PACIFIC POWER & PACIFICORP

JORDAN PINJUV

**PARTNER** 

WILKINSON BARKER KNAUER LLP 2138 W 32ND AVENUE, SUITE 300

DENVER, CO 80211

FOR: CTIA - THE WIRELESS ASSOCIATION

C.C. SONG

DIR - REGULATORY POLICY

CLEAN POWER ALLIANCE OF SO. CALIF. 555 W. 5TH STREET, 35TH FLOOR

LOS ANGELES, CA 90013

FOR: CLEAN POWER ALLIANCE OF SOUTHERN

CALIFORNIA

GYMEKA WILLIAMS

COORDINATOR - EMERGENCY MGNT

COUNTY OF LOS ANGELES 1275 NORTH EASTERN AVENUE LOS ANGELES, CA 90063

FOR: COUNTY OF LOS ANGELES

DANIEL W. DOUGLASS

ATTORNEY

DOUGLASS & LIDDELL

5737 KANAN ROAD, STE. 610

FOR: DIRECT ACCESS CUSTOMER COALITION &

ON BEHALF OF ENERGY USERS FORUM

OLIVIA SAMAD SR. ATTORNEY

SOUTHERN CALIFORNIA EDISON COMPANY 2244 WALNUT GROVE AVENUE / PO BOX 800

ROSEMEAD, CA 91770

FOR: SOUTHERN CALIFORNIA EDISON COMPANY

KEITH SWITZER

BEAR VALLEY ELECTRIC SERVICE, INC.

630 EAST FOOTHILL BLVD.

SAN DIMAS, CA 91773

FOR: BEAR VALLEY ELECTRIC SERVICE, INC.

DIANE CONKLIN SPOKESPERSON

MUSSEY GRADE ROAD ALLIANCE

PO BOX 683 RAMONA, CA 92065

FOR: MUSSEY GRADE ROAD ALLIANCE

DAVID CHENG STAFF ATTORNEY

THE UTILITY REFORM NETWORK 1620 5TH AVENUE, SUITE 810 SAN DIEGO, CA 92101

FOR: THE UTILITY REFORM NETWORK (TURN)

EDWARD LOPEZ EXECUTIVE DIR

UTILITY CONSUMERS' ACTION NETWORK

3405 KENYON ST. SUITE 401 SAN DIEGO, CA 92110

FOR: UTILITY CONSUMERS' ACTION NETWORK

MALINDA DICKENSON DIR - LEGAL & EXEC.

THE PROTECT OUR COMMUNITIES FOUNDATION

4452 PARK BLVD., STE 309 SAN DIEGO, CA 92116

FOR: PROTECT OUR COMMUNITIES FOUNDATION

HOLLY CRAWFORD

DTR

COUNTY OF S.D. OFFICE OF EMERGENCY SRVC

5580 OVERLAND AVE., STE. 100

SAN DIEGO, CA 92123

FOR: COUNTY OF SAN DIEGO OFFICE OF

**EMERGENCY SERVICES** 

LAURA FULTON SENTOR COUNSEL

SAN DIEGO GAS & ELECTRIC COMPANY

8330 CENTURY PARK, CP32D SAN DIEGO, CA 92123

FOR: SAN DIEGO GAS & ELECTRIC COMPANY

(SDG&E)

STEPHEN H. KUKTA

DIRECTOR AND SENIOR COUNSEL

T-MOBILE WEST LLC

T-MOBILE REGULATORY AFFAIRS

45750 CIELITO DRIVE

INDIAN WELLS, CA 92210-8406

FOR: SPRINT

RYAN M. F. BARON

ATTORNEY

BEST BEST & KRIEGER, LLP

18101 VON KARMAN AVE., STE. 1000

IRVINE, CA 92612 FOR: CITY OF LAFAYETTE

RYAN M. F. BARON

ATTORNEY

BEST BEST & KRIEGER, LLP 18101 VON KARMAN AVE. STE. 1000

IRVINE, CA 92612

FOR: VALLEY CENTER MUNICIPAL WATER

DISTRICT (VCMWD)

RYAN M. F. BARON

ATTORNEY

BEST BEST & KRIEGER LLP

18101 VON KARMAN AVENUE, STE. 1000

IRVINE, CA 92612

FOR: PADRE DAM MUNICIPAL WATER DISTRICT

(PDMWD)

RYAN M.F. BARON

ATTORNEY

BEST BEST & KRIEGER LLP

18101 VON KARMAN AVENUE, STE 1000

IRVINE, CA 92612

FOR: MUNICIPAL WATER DISTRICT OF ORANGE

COUNTY (MWDOC)

JACK BROUWER

UNIVERSITY OF CALIFORNIA IRVINE NATIONAIL FUEL CELL RESEARCH CENTER

UNIVERSITY OF CALIFORNIA

IRVINE, CA 92697-3550

FOR: NATIONAL FUEL CELL RESEARCH CENTER

JEREMIAH OWEN PRESIDENT

THE ACTON TOWN COUNCIL

PO BOX 810

ACTON, CA 93510

FOR: ACTION TOWN COUNCIL

JEREMY WAEN DIR - REGULATORY

PENINSULA CLEAN ENERGY AUTHORITY

2075 WOODSIDE RD.

REDWOOD CITY, CA 94061

FOR: PENINSULA CLEAN ENERGY AUTHORITY

RACHAEL E. KOSS

ATTORNEY

ADAMS BROADWELL JOSEPH & CARDOZO 601 GATEWAY BOULEVARD, SUITE 1000

SO. SAN FRANCISCO, CA 94080

AMY C. YIP-KIKUGAWA

CALIF PUBLIC UTILITIES COMMISSION

LEGAL DIVISION ROOM 4107

505 VAN NESS AVENUE

FOR: COALITION OF CALIFORNIA UTILITY

**EMPLOYEES** 

SAN FRANCISCO, CA 94102-3214 FOR: PUBLIC ADVOCATES OFFICE

WILLIAM ROSTOV DEPUTY CITY ATTORNEY

CITY AND COUNTY OF SAN FRANCISCO OFFICE OF CITY ATTORNEY DENNIS HERRERA 1 DR. CARLTON B. GOODLETT PL., RM 234 SAN FRANCISCO, CA 94102-5408

FOR: CITY AND COUNTY OF SAN FRANCISCO

JAMES M. BIRKELUND

PRESTDENT

SMALL BUSINESS UTILITY ADVOCATES 548 MARKET STREET, STE. 11200 SAN FRANCISCO, CA 94104

FOR: SMALL BUSINESS UTILITY ADVOCATES

JULIA KANTOR COUNSEL KEYES & FOX LLP

580 CALIFORNIA STREET, 12TH FLOOR

SAN FRANCISCO, CA 94104

FOR: SUNRUN INC.

JANE WHANG

SR. COUNSEL - REGULATORY

VERIZON

201 SPEAR STREET, 7TH FL. SAN FRANCISCO, CA 94105

FOR: CELLCO PARTNERSHIP LLC D/B/A

**VERIZON WIRELESS** 

MEGAN J. SOMOGYI ATTORNEY AT LAW DOWNEY BRAND LLP

455 MARKET STREET, SUITE 1500 SAN FRANCISCO, CA 94105 FOR: CITY OF SANTA ROSA

MEGAN J. SOMOGYI ATTORNEY AT LAW DOWNEY BRAND LLP

455 MARKET STREET, SUITE 1500 SAN FRANCISCO, CA 94105 FOR: COUNTY OF SAN LUIS OBISPO

MEGAN J. SOMOGYI ATTORNEY AT LAW DOWNEY BRAND LLP

455 MARKET STREET, SUITE 1500 SAN FRANCISCO, CA 94105

FOR: COUNTY OF MENDOCINO, THE COUNTY OF FOR: CITY OF MOORPARK

NAPA, AND THE COUNTY OF SONOMA

MEGAN J. SOMOGYI ATTORNEY AT LAW DOWNEY BRAND LLP

455 MARKET STREET, SUITE 1500 SAN FRANCISCO, CA 94105 FOR: COUNTY OF MARIN

MEGAN J. SOMOGYI ATTORNEY AT LAW DOWNEY BRAND LLP

455 MARKET STREET, SUITE 1500 SAN FRANCISCO, CA 94105 FOR: COUNTY OF NEVADA

MEGAN J. SOMOGYI ATTORNEY AT LAW DOWNEY BRAND LLP

455 MARKET STREET, SUITE 1500 SAN FRANCISCO, CA 94105

MEGAN J. SOMOGYI ATTORNEY AT LAW DOWNEY BRAND LLP

455 MARKET STREET, SUITE 1500 SAN FRANCISCO, CA 94105 FOR: COUNTY OF SANTA BARBARA

MEGAN J. SOMOGYI ATTORNEY AT LAW DOWNEY BRAND LLP

455 MARKET STREET, SUITE 1500 SAN FRANCISCO, CA 94105 FOR: CITY OF SIMI VALLEY

NORA SHERIFF ATTORNEY BUCHALTER, A PROFESSIONAL CORPORATION 55 SECOND STREET, STE 1700 SAN FRANCISCO, CA 94105 FOR: CITY OF RIVERSIDE

MEGAN J. SOMOGYI ATTORNEY AT LAW DOWNEY BRAND LLP

455 MARKET STREET, SUITE 1500 SAN FRANCISCO, CA 94105

FOR: KERN COUNTY

MICHAEL ALCANTAR ATTORNEY AT LAW

BUCHALTER, A PROFESSIONAL CORPORATION

55 SECOND STREET, SUITE 1700 SAN FRANCISCO, CA 94105 FOR: WESTERN STATES PETROLEUM

ASSOCIATION (WSPA)

NORA SHERIFF COUNSEL

BUCHALTER, A PROFESSIONAL CORPORATION 425 MARKET STREET, 29TH FLR SAN FRANCISCO, CA 94105-2491

FOR: ENERGY PRODUCERS AND USERS

COALITION

NORA SHERIFF, ESQ. **ATTORNEY** 

MARGARET M. THOMSON AVP - SR. LEGAL COUNSEL BUCHALTER, A PROFESSIONAL CORPORATION 55 SECOND STREET, SUITE 1700 SAN FRANCISCO, CA 94105-3493 FOR: CA LARGE ENERGY CONSUMERS ASSOCIATION

LISA A. COTTLE
ATTORNEY
SHEPPARD MULLIN RICHTER & HAMPTOM LLP
FOUR EMBARCADERO CENTER, 17TH FLOOR
SAN FRANCISCO, CA 94111

FOR: NEXTERA ENERGY TRANSMISSION WEST, LLC (NEET)

SUZANNE TOLLER
ATTORNEY
DAVIS WRIGHT TREMAINE LLP
50 CALIFORNIA STREET, 23RD FLR
SAN FRANCISCO, CA 94111
FOR: COMCAST PHONE OF CALIFORNIA, LLC

STEVEN MOSS
PARTNER
M.CUBED
296 LIBERTY STREET
SAN FRANCISCO, CA 94114
FOR: LOCAL GOVERNMENT SUSTAINABLE
ENERGY COALITION (LGSEC)

DEBRA LLOYD
UTILITIES COMPLIANCE MANAGER
CITY OF PALO ALTO UTILITIES
1007 ELWELL CT.
PALO ALTO, CA 94303
FOR: BAY AREA MUNICIPAL TRANSMISSION
GROUP

ANDY SCHWARTZ
MANAGING POLICY ADVISOR
TESLA, INC
901 PAGE AVENUE
FREMONT, CA 94538
FOR: TESLA, INC

KENNETH LEE
ATTORNEY
PACIFIC GAS AND ELECTRIC COMPANY
300 LAKESIDE DRIVE
OAKLAND, CA 94612
FOR: PACIFIC GAS AND ELECTRIC COMPANY

MICHAEL QUIROZ
REGULATORY ANALYST
AVA COMMUNITY ENERGY AUTHORITY
1999 HARRISON ST
OAKLAND, CA 94612
FOR: AVA COMMUNITY ENERGY AUTHORITY
F/K/A EAST BAY COMMUNITY ENERGY (EBCE)

AT&T SERVICES, INC.
430 BUSH STREET, 6TH FL.
SAN FRANCISCO, CA 94108
FOR: AT&T SERVICES INC. A/K/A PACIFIC
BELL TELEPHONE COMPANY

STEVEN F. GREENWALD
ATTORNEY
DAVIS WRIGHT TREMAINE LLP
50 CALIFORNIA STREET, 23RD FLR
SAN FRANCISCO, CA 94111
FOR: AD HOC COMMITTEE OF SENIOR
UNSECURED NOTEHOLDERS OF PACIFIC GAS
AND ELECTRIC COMPANY

MARI L. DAVIDSON ATTORNEY NOSSAMAN LLP 50 CALIFORNIA STREET, 34TH FL. SAN FRANCISCO, CA 94111-4799 FOR: CALIFORNIA WATER ASSOCIATION

MEGAN M. MYERS
COUNSEL
LAW OFFICES OF MEGAN M. MYERS
110 OXFORD STREET
SAN FRANCISCO, CA 94134
FOR: CALIFORNIA STATE ASSOCIATION OF
COUNTIES

THOMAS GREGORY
DEPUTY DIR
CENTER FOR INDEPENDENT LIVING
2490 MARINER SQUARE LOOP, STE. 210
ALAMEDA, CA 94501
FOR: CENTER FOR INDEPENDENT LIVING
(THECIL)

DOUGLAS E. COTY ATTORNEY BOLD, POLISNER, MADDOW, NELSON & JUDSON 2125 OAK GROVE ROAD, SUITE 210 WALNUT CREEK, CA 94598 FOR: CONTRA COSTA WATER DISTRICT

LEON BLOOMFIELD ATTORNEY LAW OFFICES OF LEON M. BLOOMFIELD 1970 BROADWAY, SUITE 1200 OAKLAND, CA 94612 FOR: T-MOBILE WEST LLC

PATRICK M. ROSVALL

PARTNER
BRB LAW LLP
436 14TH STREET, STE. 1205
OAKLAND, CA 94612
FOR: SMALL LECS: CALAVERAS TELEPHONE
CO., CAL-ORE TELEPHONE CO., DUCOR
TELEPHONE CO., FORESTHILL TELEPHONE
CO., HAPPY VALLEY TELEPHONE CO.,
HORNITOS TELEPHONE CO., KERMAN
TELEPHONE CO., PINNACLES TELEPHONE CO.,
THE PONDEROSA TELEPHONE CO., SIERRA
TELEPHONE CO., INC., THE SISKIYOU
TELEPHONE CO., VOLCANO TELEPHONE CO.,
AND WINTERHAVEN TELEPHONE CO.

SEAN P. BEATTY PARTNER BRB LAW LLP 436 14TH STREET, STE. 1205 OAKLAND, CA 94612 FOR: CONSOLIDATED COMMUNICATIONS OF CALIFORNIA COMPANY

MELISSA W. KASNITZ LEGAL DIR CENTER FOR ACCESSIBLE TECHNOLOGY 3075 ADELINE STREET, STE. 220 BERKELEY, CA 94703 FOR: CENTER FOR ACCESSIBLE TECHNOLOGY

ALEX J. MORRIS EXE. DIR. CALIFORNIA ENERGY STORAGE ALLIANCE 2150 ALLSTON WAY, STE.400 BERKELEY, CA 94704

SABRINNA SOLDAVINI SR. POLICY ANALYST MARIN CLEAN ENERGY 1125 TAMALPAIS AVENUE SAN RAFAEL, CA 94901 FOR: CALIFORNIA ENERGY STORAGE ALLIANCE FOR: MARIN CLEAN ENERGY

ALEXANDRA LEUMER DIR - PUBLIC POLICY CHARGEPOINT, INC. 254 EAST HACIENDA AVENUE CAMPBELL, CA 95008 FOR: CHARGEPOINT, INC.

STEPHANIE SAFDI DEPUTY COUNTY COUNSEL COUNTY OF SANTA CLARA 70 WEST HEDDING STREET SAN JOSE, CA 95110 FOR: COUNTY OF SANTA CLARA

ELISA TOLENTINO SR. DEPUTY CITY ATTORNEY CITY OF SAN JOSE' OFFICE OF THE CITY ATTORNEY 200 EAST SANTA CLARA STREET, 16TH FL. SAN JOSE, CA 95113 SAN JOSÉ, CA 95113 FOR: CITY OF SAN JOSE

YUE-HAN CHOW SR. DEPUTY CITY ATTORNEY CITY OF SAN JOSE 200 E. SANTA CLARA STREET, 16TH FL FOR: CITY OF SAN JOSÉ

C. SUSIE BERLIN ATTORNEY LAW OFFICES OF SUSIE BERLIN 1346 THE ALAMEDA, STE. 7, NO. 141 SAN JOSE, CA 95126 FOR: GOLDEN STATE POWER COOPERATIVE C. SUSIE BERLIN LAW OFFICES OF SUSIE BERLIN 1346 THE ALAMEDA, STE. 7, NO. 141 SAN JOSE, CA 95126 FOR: NORTHERN CALIFORNIA POWER AGENCY

NEAL M. REARDON DIR - REGULATORY AFFAIRS SONOMA CLEAN POWER AUTHORITY 50 SANTA ROSA AVE. 5TH FL SANTA ROSA, CA 95404 FOR: SONOMA CLEAN POWER AUTHORITY WILLIAM B. ABRAMS COMMUNITY ADVOCATE 1519 BRANCH OWL PLACE SANTA ROSA, CA 95409 FOR: WILLIAM B. ABRAMS

JORDAN PINJUV SR. COUNSEL CALIFORNIA INDEPENDENT SYSTEM OPERATOR 250 OUTCROPPING WAY FOLSOM, CA 95630 FOR: CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION (CAISO)

NICHOLAS LEVENHAGEN ATTORNEY DISABILITY RIGHTS CALIFORNIA 1831 K STREET SACRAMENTO, CA 95811 FOR: DISABILITY RIGHTS CALIFORNIA

**BRITTANY ILES ATTORNEY** BRAUN BLAISING SMITH WYNNE, P.C. 915 L STREET, STE. 1480 SACRAMENTO, CA 95814 FOR: THE CALIFORNIA COMMUNITY CHOICE ASSOCIATION (CALCCA)

**BRITTANY ILES ATTORNEY** BRAUN BLAISING SMITH WYNNE, P.C. 915 L STREET, STE. 1480 SACRAMENTO, CA 95814 FOR: CENTRAL COAST COMMUNITY ENERGY F/K/A MONTEREY BAY COMMUNITY POWER AUTHORITY (MBCP)

**BRITTANY ILES** ATTORNEY BRAUN BLAISING SMITH WYNNE, P.C. 915 L STREET, SUITE 1480 SACRAMENTO, CA 95814

CHELSEA HAINES SR. REGULATORY ADVOCATE ASSOCIATION OF CALIFORNIA WATER AGENCIES 980 9TH STREET, SUITE 1000 SACRAMENTO, CA 95814

FOR: PIONEER COMMUNITY ENERGY

FOR: ASSOCIATION OF CALIFORNIA WATER AGENCIES (ACWA)

JOSHUA NELSON **ASSOCIATE** 

BEST BEST & KRIEGER LLP 500 CAPITOL MALL, STE. 1700 SACRAMENTO, CA 95814

FOR: CITY OF MALIBU

JUSTIN WYNNE ATTORNEY

BRAUN BLAISING SMITH WYNNE, P.C. 915 L STREET, STE. 1480

SACRAMENTO, CA 95814

JEROME F. CANDELARIA

FOR: CALIFORNIA MUNICIPAL UTILITIES

ASSOCIATION

STACI HEATON

REGULATORY AFFAIRS ADVOCATE RURAL COUNTY REPRESENTATIVES OF CALIF.

1215 K ST., STE. 1650 SACRAMENTO, CA 95814

FOR: RURAL COUNTY REPRESENTATIVES OF

CAL TEORNTA

CALIF. BROADBAND & VIDEO ASSOCIATION 100 K STREET, 2ND FL.

SACRAMENTO, CA 95814-3832

FOR: CALIFORNIA BROADBAND & VIDEO ASSOCIATION (FORMERLY CALIFORNIA CABLE & TELECOMMUNICATIONS ASSOCIATION)

LYNN M. HAUG

ELLISON SCHNEIDER HARRIS & DONLAN LLP 2600 CAPITOL AVENUE, SUITE 400

SACRAMENTO, CA 95816

FOR: EAST BAY MUNICIPAL UTILITY DISTRICT SACRAMENTO, CA 95816

RONALD LIEBERT

ATTORNEY

ELLISON, SCHNEIDER HARRIS & DONLAN LLP

2600 CAPITOL AVE., STE. 400

FOR: CALIFORNIA MANUFACTURERS &

TECHNOLOGY ASSOCIATION

DAVID SCRIBNER

CHIEF COUNSEL

DEPT OF COMMUNITY SERVICES & DEVELOPMENT CALIFORNIA FARM BUREAU FEDERATION

2389 GATEWAY OAKS DR., STE. 100

SACRAMENTO, CA 95833

FOR: DEPARTMENT OF COMMUNITY SERVICES

AND DEVELOPMENT (CSD)

KAREN NOREEN MILLS

ATTORNEY

2600 RIVER PLAZA DRIVE SACRAMENTO, CA 95833

FOR: CALIFORNIA FARM BUREAU FEDERATION

BRIAN WEISEL

LEGAL COUNSEL

STATE COUNCIL DEVELOPMENTAL DISABILITY 3/31 N. FREEWAY BLVD., STE. 125

SACRAMENTO, CA 95834

FOR: STATE COUNCIL ON DEVELOPMENTAL

DISABILITIES (SCDD)

ANN I. TROWBRIDGE

ATTORNEY

DAY CARTER & MURPHY LLP

3620 AMERICAN RIVER DR., STE. 205

SACRAMENTO, CA 95864

FOR: AGRICULTURAL ENERGY CONSUMERS

ASSOCIATION

DANIEL MARSH

MGR - RATES & REGULATORY

LIBERTY UTILITIES

933 ELOISE AVE. SO. LAKE TAHOE, CA 96150

FOR: LIBERTY UTILITIES (CALPECO

ELECTRIC) LLC

#### **Information Only** .....

REGULATORY

BEAR VALLEY ELECTRIC SERVICE, INC.

EMAIL ONLY

EMAIL ONLY, CA 00000

ADAM ABEL

CITY OF SANTA ROSA

EMAIL ONLY

EMAIL ONLY, CA 00000

AMULYA YERRAPOTU

MARIN CLEAN ENERGY

EMAIL ONLY

ANWAR SAFVT

EMAIL ONLY, AA 00000

ANGELA GOULD CALIFORNIA ENERGY COMMISSION

EMAIL ONLY

EMAIL ONLY, CA 00000

BILL POWERS, P.E.

CPUC - WILDFIRE SAFETY

EMAIL ONLY

EMAIL ONLY, CA 00000

TECHNICAL ADVISOR POWERS ENGINEERING

EMAIL ONLY

EMAIL ONLY, CA 00000

DANIEL GARCIA CITY OF RIVERSIDE EMAIL ONLY

EMAIL ONLY, CA 00000

DANIEL TEIMOURI PACIFICORP EMAIL ONLY

EMAIL ONLY, AA 00000

DARREN LEE

OPERATIONS MGR BRB LAW LLP

EMAIL ONLY EMAIL ONLY, CA 00000 DAVID B. PECK

CALIFORNIA PUBLIC UTILITIES COMMISSION

EMAIL ONLY

EMAIL ONLY, CA 00000

EBCE REGULATORY

EAST BAY COMMUNITY ENERGY EMAIL ONLY EMAIL ONLY, CA 00000

FOR: AVA COMMUNITY ENERGY AUTHORITY

F/K/A EAST BAY COMMUNITY ENERGY (EBCE)

FAITH CARLSON

REGULATORY & LEGISLATIVE POLICY MGR. REDWOOD COAST ENERGY AUTHORITY

EMAIL ONLY

EMAIL ONLY, CA 00000

FOREST KASER

CPUC - SE&SP EMAIL ONLY

EMAIL ONLY, CA 00000

JEAN HAWLEY

TELECOMMUNICATIONS PARALEGAL FRIEND, HUDAK & HARRIS, LLP

EMAIL ONLY

EMAIL ONLY, AA 00000

JENNY KAN

PACIFIC GAS & ELECTRIC COMPANY

EMAIL ONLY

EMAIL ONLY, CA 00000

JONATHAN FROST

ADVISOR | WILDFIRE SAFETY ADVISORY BOARD CA OFFICE OF ENERGY INFRASTRUCTURE SAFTY

EMAIL ONLY

EMAIL ONLY, CA 00000

JORDAN PARILLO

LIBERTY UTILITIES EMAIL ONLY

EMAIL ONLY, CA 00000

JOY MASTACHE

SR. ATTORNEY - OFF. OF GEN. COUNSEL SACRAMENTO MUNICIPAL UTILITY DISTRICT

EMAIL ONLY

EMAIL ONLY, CA 00000

JULIA ENDE

CALIFORNIA PUBLIC UTILITIES COMMISSION

EMATI ONLY EMAIL ONLY, CA 00000 JUSTIN BUKARTEK PACIFICORP

EMAIL ONLY

EMAIL ONLY, CA 00000

KARI CAMERON BBK LAW

ALCANTAR LAW GROUP EMAIL ONLY

EMAL ONLY, CA 00000

KAVYA BALARAMAN REPORTER UTILITY DIVE EMAIL ONLY

EMAIL ONLY, DC 00000 FOR: UTILITY DIVE

KE HAO OUYANG

PROGRAM & PROJECT SUPERVISOR - CPED CALIFORNIA PUBLIC UTILITIES COMMISSION

EMAIL ONLY

EMAIL ONLY, CA 00000

KEVIN ASHE

HOLLAND & KNIGHT LLP

EMAIL ONLY

EMAIL ONLY, CA 00000

KEVIN MILLER

OEIS)

EMAIL ONLY

EMAIL ONLY, CA 00000

LAUREN MILLER PARALEGAL

OFFICE OF ENERGY INFRASTRUCTURE SAFETY ( OFFICE OF CITY ATTORNEY DENNIS HERRERA

EMAIL ONLY

EMAIL ONLY, CA 00000

LEGAL DIVISION

EMAIL ONLY

EMAIL ONLY, CA 00000

LES GULTAST

RACHEL CARSON COLLEGE

UNIVERSITY OF CALIFORNIA, SANTA CRUZ

EMAIL ONLY

EMAIL ONLY, CA 00000

MADDY STRUTNER REGULATORY

SAN DIEGO GAS & ELECTRIC

EMAIL ONLY

EMAIL ONLY, CA 00000

MCE REGULATORY MARIN CLEAN ENERGY

EMAIL ONLY

EMAIL ONLY, CA 00000

MEGAN BUCKNER

PACIFICORP

EMAIL ONLY EMAIL ONLY, CA 00000 NATHAN POON

OFFICE OF ENERGY INFRASTRUCTURE SAFETY

EMAIL ONLY

EMAIL ONLY, CA 00000

NICHOLAS RAFT LIBERTY UTILITIES EMAIL ONLY

EMAIL ONLY, CA 00000

PAUL HUNT EMAIL ONLY

EMAIL ONLY, CA 00000

SCOTT DUNBAR

KEYES & FOX LLP

EMAIL ONLY

EMAIL ONLY, CA 00000 FOR: SUNRUN INC.

TAYLOR RENNER

PACIFIC GAS AND ELECTRIC COMPANY

EMAIL ONLY

EMAIL ONLY, CA 00000

VICTOR ROOSEN

EMAIL ONLY

EMAIL ONLY, CA 00000

WALTER PARK

DESIGNING ACCESSIBLE COMMUNITIES

EMAIL ONLY

EMAIL ONLY, CA 00000

WILL DUNDON

UTILITIES ENGINEER, WATER DIVISION CALIFORNIA PUBLIC UTILITIES COMMISSION

EMAIL ONLY

EMAIL ONLY, CA 00000

PACIFICORP REGULATORY AFFAIRS

PACIFICORP EMAIL ONLY

EMAIL ONLY, AA 00000

CAMERON-DANIEL, P.C.

EMAIL ONLY

EMAIL ONLY, CA 00000

MRW & ASSOCIATES LLC

EMAIL ONLY

EMAIL ONLY, CA 00000

CHRISTOPHER CHOW

PUBLIC INFORMATION OFFICER

EMAIL ONLY EMAIL ONLY, CA 00000-0000

PAUL CHERNICK PRESIDENT

RESOURCE INSIGHT 5 WATER ST.

ARLINGTON, MA 02476

JENNIFER PELZMAN

VERIZON

1300 I STREET NW WASHINGTON, DC 20005 SARAH TROSCH **VERIZON** 

1300 I STREET NW WASHINGTON, DC 20005

OLIVIA B. WEIN

STAFF ATTORNEY

NATIONAL CONSUMER LAW CENTER

1001 CONNECTICUT AVE., NW., STE. 510

1155 KILDAIRE FA
CARY, NC 27511

BLAKE ELDER

POLICY RESEARCH ANALYST

EQ RESEARCH, LLC

1155 KILDAIRE FARM ROAD, SUITE 203

STEVEN GRECO

REGULATORY AFFAIRS ANALYST

HORIZON WEST TRANSMISSION, LLC

JIM ROSS RCS. INC.

266 PENNINGTON LANE

700 UNIVERSE BLVD JUNO BEACH, FL 33407 CHESTERFIELD, MO 63005

TRACY C. DAVIS SR. ATTORNEY NEXTERA ENERGY TRANSMISSION, LLC 5920 W. WILLIAM CANNON DR., BLDG 2 AUSTIN, TX 78749 ALCO ROBINSON ASSISTANT AT&T 6750 VIA ASTI PKWY LAS VEGAS, NV 89119

STELLA FOGLEMAN
DIR
COUNTY OF LOS ANGELES
600 S. COMMONWEALTH AVE., STE.700
LOS ANGELES, CA 90005
FOR: COUNTY OF LOS ANGELES, DEPARTMENT
OF PUBLIC HEALTH

HEIDI LIU
ASSOC COUNTY COUNSEL
COUNTY OF LOS ANGELES
500 WEST TEMPLE ST., STE. 651
LOS ANGELES, CA 90012
FOR: COUNTY OF LOS ANGELES

JAMIE GARCIA LOS ANGELES DEPT OF WATER AND POWER 11 N. HOPE ST. ROOM 856 LOS ANGELES, CA 90012 JEFFERY A. WILLIAMS
SUPERINTENDENT - CODES & ORDINANCES
L.A. DEPT OF WATER & POWER
111 NORTH HOPE STREET, RM. 856
LOS ANGELES, CA 90012

ANNE KIM
CALIF PUBLIC UTILITIES COMMISSION
SAFETY MANAGEMENT SYSTEM BRANCH
320 West 4th Street Suite 500
Los Angeles, CA 90013

BRIDGET HORAN
CALIF PUBLIC UTILITIES COMMISSION
ELECTRICITY PLANNING & POLICY BRANCH
320 West 4th Street Suite 500
Los Angeles, CA 90013

BRYAN PENA
CALIF PUBLIC UTILITIES COMMISSION
ELECTRIC SAFETY AND RELIABILITY BRANCH
320 West 4th Street Suite 500
Los Angeles, CA 90013

CHRISTOPHER MOORE
CALIF PUBLIC UTILITIES COMMISSION
BUSINESS AND COMMUNITY OUTREACH
320 West 4th Street Suite 500
Los Angeles, CA 90013

EDWIN SCHMITT
CALIF PUBLIC UTILITIES COMMISSION
SAFETY POLICY DIVISION
320 West 4th Street Suite 500
Los Angeles, CA 90013

ERIC WU
CALIF PUBLIC UTILITIES COMMISSION
SAFETY MANAGEMENT SYSTEM BRANCH
320 West 4th Street Suite 500
Los Angeles, CA 90013

FADI DAYE
CALIF PUBLIC UTILITIES COMMISSION
ELECTRIC SAFETY AND RELIABILITY BRANCH
320 West 4th Street Suite 500
Los Angeles, CA 90013

JOAN WEBER
CALIF PUBLIC UTILITIES COMMISSION
ELECTRIC SAFETY AND RELIABILITY BRANCH
320 West 4th Street Suite 500
Los Angeles, CA 90013

KOKO M. TOMASSIAN
CALIF PUBLIC UTILITIES COMMISSION
SAFETY MANAGEMENT SYSTEM BRANCH
320 West 4th Street Suite 500
Los Angeles, CA 90013

MATTHEW LANGER
ATTORNEY
CLEAN POWER ALLIANCE OF SO. CALIF.
555 WEST 5TH STREET, 35TH FL
LOS ANGELES, CA 90013

NANCY WHANG
GENERAL COUNSEL
CLEAN POWER ALLIANCE OF SO. CALIF.
555 WEST 5TH STREET, 35TH FLOOR
LOS ANGELES, CA 90013

RAFFY STEPANIAN
CALIF PUBLIC UTILITIES COMMISSION
ELECTRIC SAFETY AND RELIABILITY BRANCH
320 West 4th Street Suite 500
Los Angeles, CA 90013

STEVEN KLAIBER
CALIF PUBLIC UTILITIES COMMISSION
WILDFIRE SAFETY & ENFORCEMENT BRANCH
320 West 4th Street Suite 500
Los Angeles, CA 90013

ANDREW MCCARDLE
DAVIS WRIGHT TREMAINE LLP
865 S FIGUEROA STREET, SUITE 2400
LOS ANGELES, CA 90017

B. TILDEN KIM
ATTORNEY
RICHARDS, WATSON & GERSHON
350 SOUTH GRAND AVENUE, 37TH FL
LOS ANGELES, CA 90071
FOR: CITY OF MOORPARK

BRIAN HAUCK JENNER & BLOCK LLP 633 W. 5TH ST., STE. 3500 LOS ANGELES, CA 90071

JENNER & BLOCK LLP 515 SOUTH FLOWER STREET 3300 LOS ANGELES, CA 90071 JANE E. TERJUNG
COMMUNITY ADVOCATES
TOPANGA COMMUNITY ALLIANCE
1639 OAK DRIVE
TOPANGA, CA 90290
FOR: JANE E. TERJUNG & WILLIAM E. NAYLOR

FRED G. YANNEY, ESQ. ATTORNEY YANNEY LAW OFFICE 17409 MARQUARDT AVE. STE. C-4 CERRITOS, CA 90703 GREGORY S.G. KLATT
ATTORNEY
DOUGLASS & LIDDELL
411 E. HUNTINGTON DR., STE 107-356
ARCADIA, CA 91006

BOONPING GOH ADVISOR SOUTHERN CALIFORNIA EDISON 3 INNOVATION WAY POMONA, CA 91768 ANDRE RAMIREZ
REG AFFAIRS – SR ADVISOR
SOUTHERN CALIFORNIA EDISON COMPANY
8631 RUSH STREET
ROSEMEAD, CA 91770

ANNA M. WOJTYNA-MACHON SOUTHERN CALIFORNIA EDISON COMPANY 2244 WALNUT GROVE AVE ROSEMEAD, CA 91770 ANNA VALDBERG
DIR & MANAGING ATTORNEY
SOUTHERN CALIFORNIA EDISON COMPANY
2244 WALNUT GROVE AVENUE
ROSEMEAD, CA 91770

CONNOR J. FLANIGAN SR. ATTORNEY SOUTHERN CALIFORNIA EDISON COMPANY 2244 WALNUT GROVE AVE. / PO BOX 806 DEREK MATSUSHIMA EDISON INTERNATIONAL 2244 WALNUT GROVE AVE. ROSEMEAD, CA 91770

2244 WALNUT GROVE AVE. / PO BOX 800 ROSEMEAD, CA 91770 FOR: SOUTHERN CALIFORNIA EDISON COMPANY

ELENA KILBERG SENIOR ATTORNEY SOUTHERN CALIFORNIA EDISON COMPANY

8631 RUSH STREET ROSEMEAD, CA 91770

FOR: SOUTHERN CALIFORNIA EDISON COMPANY

KAREN CHUNG MGR - PROJECT SOUTHERN CALIFORNIA EDISON COMPANY 2244 WALNUT GROVE AVENUE ROSEMEAD, CA 91770

NATHANAEL GONZALEZ SOUTHERN CALIFORNIA EDISON COMPANY 8631 RUSH STREET ROSEMEAD, CA 91770 RYAN STEVENSON PRIN ADVISOR, REG AFFAIRS & COMPL SOUTHERN CALIFORNIA EDISON COMPANY 2244 WALNUT GROVE AVE. ROSEMEAD, CA 91770

SCE WILDFIRES CASE ADMIN SOUTHERN CALIFORNIA EDISON COMPANY 8631 RUSH STREET ROSEMEAD, CA 91770 ALICIA MENCHACA RATE ANALYST, REGULATORY AFFAIRS BEAR VALLEY ELECTRIC SERVICE, INC. 630 E. FOOTHILL BLVD. SAN DIMAS, CA 91773

DR. QUAN NGUYEN
BEAR VALLEY ELECTRIC SERVICE, INC.
630 E. FOOTHILL BLVD.
SAN DIMAS, CA 91773

JEFFREY LINAM
MGR - REGULATORY
BEAR VALLEY ELECTRIC SERVICE, INC.
630 E. FOOTHILL BLVD.
SAN DIMAS, CA 91773

LISA MAU REGULATORY SOUTHERN CALIFORNIA EDISON 2244 WALNUT GROVE AVE. ROSEMEAD, CA 91773

PATRICIA NERI SOUTHERN CALIFORNIA EDISON 1515 WALNUT GROVE AVE ROSEMEAD, CA 91773

JESSICA KIRSHNER LAW CLERK LAW OFFICES OF SHAWN E. CAINE, A.P.C. 1221 CAMINO DEL MAR DEL MAR, CA 92014

SHAWN E. CAINE LAW OFFICES OF SHAWN E. CAINE 1221 CAMINO DEL MAR DEL MAR, CA 92014

JOSEPH W. MITCHELL, PH.D M-BAR TECHNOLOGIES AND CONSULTING, LLC 19412 KIMBALL VALLEY RD. RAMONA, CA 92065

MARK NTEMTEC INTERIM DIR - ENGINEERING & PLANNING PADRE DAM MUNICIPAL WATER DISTRICT 9300 FANTTA PARKWAY SANTEE, CA 92071

PAUL CLARKE DIR - OPER & WATER QUALITY PADRE DAM MUNICIPAL WATER DISTRICT 9300 FANITA PARKWAY SANTEE, CA 92071

GARY ARANT GENERAL MGR. VALLEY CENTER MUNICIPAL WATER DISTRICT 29300 VALLEY CENTER ROAD VALLEY CENTER, CA 92082

ASHLEY L. SALAS STAFF ATTORNEY THE UTILITY REFORM NETWORK 1620 5TH AVENUE, SUITE 810 SAN DIEGO, CA 92101

MEGHAN O'BRIEN STOEL RIVES LLP 501 WEST BROADWAY, SUITE 2000 SAN DIEGO, CA 92101

DONALD C. LIDDELL, PC COUNSEL DOUGLASS & LIDDELL 2928 2ND AVENUE SAN DIEGO, CA 92103

COURTNEY COOK PARALEGAL / OFFICE ADMIN. UTILITY CONSUMERS' ACTION NETWORK 3405 KENYON STREET, SUITE 401 SAN DIEGO, CA 92110

KRISTEN CAMUGLIA COX COMMUNICATIONS 5887 COPLEY DRIVE, STE. 300 SAN DIEGO, CA 92111

KARI KLOBERDANZ-YU MANAGER- REGULATORY SAN DIEGO GAS & ELECTRIC COMPANY 8330 CENTURY PARK COURT, CP32D SAN DIEGO, CA 92122

CLAY FABER DIR. CA & FEDERAL REGULATORY SAN DIEGO GAS & ELECTRIC COMPANY 8330 CENTURY PARK COURT, CP32F SAN DIEGO, CA 92123 FOR: SAN DIEGO GAS & ELECTRIC COMPANY KELLEN C. GILL REGULATORY CASE MGR. SAN DIEGO GAS & ELECTRIC COMPANY 8330 CENTURY PARK COURT, CP 32D SAN DIEGO, CA 92123

KRISTOPHER BOURBOIS REGULATORY SAN DIEGO GAS & ELECTRIC COMPANY 326 CENTURY PARK CT 8326 CENTURY PARK CT, BUILDING 3-2 SAN DIEGO, CA 92123

TAYLOR MARVIN SAN DIEGO GAS & ELECTRIC COMPANY

CENTRAL FILES SAN DIEGO GAS & ELECTRIC COMPANY SAN DIEGO, CA 92123

8330 CENTURY PARK CT, CP31-E SAN DIEGO, CA 92123-1530

SHEWIT WOLDEGIORGIS MGR - REGULATORY SAN DIEGO GAS & ELECTRIC COMPANY 8330 CENTURY PARK CT., CP32F SAN DIEGO, CA 92123-1530

TTM LYONS REGULATORY AFFAIRS SAN DIEGO GAS & ELECTRIC COMPANY TYLER KIRCHHOFF REGULATORY CASE MGR SAN DIEGO GAS & ELECTRIC 8330 CENTURY PARK CT, CP32F SAN DIEGO, CA 92123-1530

8330 CENTURY PARK CT., CP32F SAN DIEGO, CA 92123-1530

PAUL MARCONI DIRECTOR BEAR VALLEY ELECTRIC SERVICE, INC. 42020 GRASTIN DRIVE / PO BOX 1547 BIG BEAR LAKE, CA 92315 GEORGE R. HANSON ASSIST. GEN. MGR. CITY OF RIVERSIDE - PUBLIC UTILITIES 3750 UNIVERSITY AVE. RIVERSIDE, CA 92501

SUSAN D. WILSON
ASSISTANT CITY ATTORNEY
CITY OF RIVERSIDE
3900 MAIN STREET, 7TH FLOOR
RIVERSIDE, CA 92522

JESUS G. ROMAN
ASSIST. GEN. COUNSEL
VERIZON
15505 SAND CANYON AVE. D201
IRVINE, CA 92618

KELLY HUBBARD
WEROC PROGRAMS MANAGER
MUNICIPAL WATER DIST OF ORANGE COUNTY
18700 WARD STREET
FOUNTAIN VALLEY, CA 92708

VICKI OSBORN MWDOC 18700 WARD STREET FOUNTAIN VALLEY, CA 92708

JON ANSOLABEHERE
ASSISTANT COUNTY COUNSEL
COUNTY OF SAN LUIS OBISPO
1055 MONTEREY ST., STE D320
SAN LUIS OBISPO, CA 93408

RITA L. NEAL
COUNTY COUNSEL
COUNTY OF SAN LUIS OBISPO
1055 MONTEREY ST., STE D320
SAN LUIS OBISPO, CA 93408

JOHN J. WALLER 2675 AVENA ROAD LOMPOC, CA 93436 CHARLOTTE COSTAN
THE ACTON TOWN COUNCIL
EMAIL ONLY
EMAIL ONLY, CA 93510

ILANA PARMER MANDELBAUM
DEPUTY COUNTY COUNSEL
SAN MATEO COUNTY COUNSEL'S OFFICE
400 COUNTY CENTER, 6TH FLOOR
REDWOOD CITY, CA 94063

AIDAN MARSHALL ADAMS BROADWELL JOSEPH & CARDOZO 601 GATEWAY BOULEVARD, SUITE 1000 SOUTH SAN FRANCISCO, CA 94080

ANDREW J. GRAF
ASSOCIATE ATTORNEY
ADAMS BROADWELL JOSEPH & CARDOZO
601 GATEWAY BOULEVARD, SUITE 1000
SOUTH SAN FRANCISCO, CA 94080

MARC D. JOSEPH ATTORNEY AT LAW ADAMS BROADWELL JOSEPH & CARDOZO 601 GATEWAY BLVD., STE. 1000 SOUTH SAN FRANCISCO, CA 94080

TARA KAUSHIK SOUTHERN CALIFORNIA EDISON COMPANY 601 VAN NESS AVENUE, SUITE 2030 SAN FRANCISCO, CA 94102 AARON LOUIE CALIF PUBLIC UTILITIES COMMISSION SAFETY BRANCH AREA 505 VAN NESS AVENUE SAN FRANCISCO, CA 94102-3214

AMANDA ASADI
CALIF PUBLIC UTILITIES COMMISSION
SAFETY BRANCH
AREA
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

AMY B. CHAMARTY
CALIF PUBLIC UTILITIES COMMISSION
CONSUMER AFFAIRS BRANCH
ROOM 5210
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

ANAND DURVASULA
CALIF PUBLIC UTILITIES COMMISSION
LEGAL DIVISION
ROOM 5130
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

ANIL BALIVADA
CALIF PUBLIC UTILITIES COMMISSION
CARRIER OVERSIGHT AND PROGRAMS BRANCH
AREA
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

ARTHUR ETSHER CALIF PUBLIC UTILITIES COMMISSION SAFETY BRANCH ARFA

505 VAN NESS AVENUE

SAN FRANCISCO, CA 94102-3214

CHARLES MEE CALIF PUBLIC UTILITIES COMMISSION

WILDFIRE SAFETY & ENFORCEMENT BRANCH

505 VAN NESS AVENUE SAN FRANCISCO, CA 94102-3214

CHLOE LUKINS CALIF PUBLIC UTILITIES COMMISSION ENERGY INFRASTRUCTURE BRANCH ROOM 4102

505 VAN NESS AVENUE

SAN FRANCISCO, CA 94102-3214

CHRISTOPHER CHOW CALIF PUBLIC UTILITIES COMMISSION NEWS AND SOCIAL MEDIA ROOM 5301 505 VAN NESS AVENUE

SAN FRANCISCO, CA 94102-3214

CHRISTOPHER PARKES

CALIF PUBLIC UTILITIES COMMISSION SAFETY BRANCH AREA 2-D 505 VAN NESS AVENUE

SAN FRANCISCO, CA 94102-3214

DREW HODEL CALIF PUBLIC UTILITIES COMMISSION PRESIDENT ALICE REYNOLDS

ARFA

505 VAN NESS AVENUE SAN FRANCISCO, CA 94102-3214

JAMIE ORMOND CALIF PUBLIC UTILITIES COMMISSION ADMINISTRATIVE LAW JUDGE DIVISION

505 VAN NESS AVENUE

SAN FRANCISCO, CA 94102-3214

JULTAN ENTS CALIF PUBLIC UTILITIES COMMISSION DISTRIBUTION PLANNING BRANCH ARFA

505 VAN NESS AVENUE

SAN FRANCISCO, CA 94102-3214

KAREN M. SHEA CALIF PUBLIC UTILITIES COMMISSION ADMINISTRATION & BUDGET UNIT AREA 5-E 505 VAN NESS AVENUE

SAN FRANCISCO, CA 94102-3214

BENJAMIN KATZENBERG CALIF PUBLIC UTILITIES COMMISSION

SAFETY BRANCH

ΔRFΔ

505 VAN NESS AVENUE

SAN FRANCISCO, CA 94102-3214

CHARLYN A. HOOK

CALIF PUBLIC UTILITIES COMMISSION

LEGAL DIVISION ROOM 5123

505 VAN NESS AVENUE

SAN FRANCISCO, CA 94102-3214 FOR: PUBLIC ADVOCATES OFFICE

CHRISTINE J. HAMMOND

CALIF PUBLIC UTILITIES COMMISSION

LEGAL DIVISION ROOM 5138

505 VAN NESS AVENUE

SAN FRANCISCO, CA 94102-3214

CHRISTOPHER CLAY

CALIF PUBLIC UTILITIES COMMISSION

LEGAL DIVISION ROOM 4300

505 VAN NESS AVENUE

SAN FRANCISCO, CA 94102-3214

FOR: OSA

DAPHNE GOLDBERG

CALIF PUBLIC UTILITIES COMMISSION

WATER BRANCH ROOM 4208

505 VAN NESS AVENUE

SAN FRANCISCO, CA 94102-3214

ELIZABETH PODOLINSKY

CALIF PUBLIC UTILITIES COMMISSION

ADMINISTRATION & BUDGET UNIT

ARFA

505 VAN NESS AVENUE

SAN FRANCISCO, CA 94102-3214

JONATHAN KOLTZ

CALIF PUBLIC UTILITIES COMMISSION

LEGAL DIVISION ROOM 5035

505 VAN NESS AVENUE

SAN FRANCISCO, CA 94102-3214

JUSTIN HAGI FR

CALIF PUBLIC UTILITIES COMMISSION

COMMISSIONER BAKER

AREA 4-A

505 VAN NESS AVENUE

SAN FRANCISCO, CA 94102-3214

KARIN NGUYEN

CALIF PUBLIC UTILITIES COMMISSION

WILDFIRE SAFETY & ENFORCEMENT BRANCH

AREA

505 VAN NESS AVENUE

SAN FRANCISCO, CA 94102-3214

KATE BECK
CALIF PUBLIC UTILITIES COMMISSION
COMMUNICATIONS AND WATER POLICY BRANCH
AREA
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

LESLIE L. PALMER
CALIF PUBLIC UTILITIES COMMISSION
SAFETY AND ENFORCEMENT DIVISION
ROOM 2203
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

LUCY MORGANS
CALIF PUBLIC UTILITIES COMMISSION
SAFETY BRANCH
AREA
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

MATTHEW A. KARLE
CALIF PUBLIC UTILITIES COMMISSION
SAFETY BRANCH
ROOM 4108
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

MATTHEW YERGOVICH
CALIF PUBLIC UTILITIES COMMISSION
LEGAL DIVISION
AREA
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

MICHELE M. KING
CALIF PUBLIC UTILITIES COMMISSION
BROADBAND, POLICY & ANALYSIS BRANCH
AREA 3-F
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

NATHANIEL SKINNER
CALIF PUBLIC UTILITIES COMMISSION
SAFETY BRANCH
AREA 4-A
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

NORA HAWKINS
CALIF PUBLIC UTILITIES COMMISSION
PRESIDENT ALICE REYNOLDS
AREA
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

REGINA DEANGELIS
CALIF PUBLIC UTILITIES COMMISSION
ADMINISTRATIVE LAW JUDGE DIVISION
AREA
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

RUDY SASTRA
CALIF PUBLIC UTILITIES COMMISSION
UTILITY & PAYPHONE ENFORCEMENT BRANCH

KENNETH YANG
CALIF PUBLIC UTILITIES COMMISSION
UTILITY & PAYPHONE ENFORCEMENT BRANCH
AREA 3-E
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

LEUWAM TESFAI
CALIF PUBLIC UTILITIES COMMISSION
EXECUTIVE DIVISION
ROOM 5137
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

MARIANNE DIVINA
CALIF PUBLIC UTILITIES COMMISSION
ADMINISTRATIVE LAW JUDGE DIVISION
AREA
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

MATTHEW TAUL
CALIF PUBLIC UTILITIES COMMISSION
SAFETY BRANCH
AREA
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

MATTHEW YUNGE
CALIF PUBLIC UTILITIES COMMISSION
ELECTRIC SAFETY AND RELIABILITY BRANCH
AREA
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

MINA BOTROS
CALIF PUBLIC UTILITIES COMMISSION
SAFETY BRANCH
AREA
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

NOEL OBIORA
CALIF PUBLIC UTILITIES COMMISSION
LEGAL DIVISION
ROOM 5121
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

RAJAN MUTIALU
CALIF PUBLIC UTILITIES COMMISSION
ADMINISTRATIVE LAW JUDGE DIVISION
AREA 4-A
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

RODERICK HILL
CALIF PUBLIC UTILITIES COMMISSION
LEGAL DIVISION
ROOM 4300
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

SEAN A. SIMON
CALIF PUBLIC UTILITIES COMMISSION
COMMISSIONER DOUGLAS

AREA 2-D 505 VAN NESS AVENUE SAN FRANCISCO, CA 94102-3214 ROOM 5201 505 VAN NESS AVENUE SAN FRANCISCO, CA 94102-3214

SUZANNE CASAZZA CALIF PUBLIC UTILITIES COMMISSION COMMISSIONER JOHN REYNOLDS AREA 505 VAN NESS AVENUE

SAN FRANCISCO, CA 94102-3214

TALAL HARAHSHEH CALIF PUBLIC UTILITIES COMMISSION SAFETY BRANCH AREA 505 VAN NESS AVENUE SAN FRANCISCO, CA 94102-3214

TYLER HOLZSCHUH CALIF PUBLIC UTILITIES COMMISSION SAFETY BRANCH AREA 505 VAN NESS AVENUE SAN FRANCISCO, CA 94102-3214

VALERIE KAO CALIF PUBLIC UTILITIES COMMISSION ADMINISTRATIVE LAW JUDGE DIVISION ROOM 5105 505 VAN NESS AVENUE SAN FRANCISCO, CA 94102-3214

VICKY ZHONG CALIF PUBLIC UTILITIES COMMISSION UTILITY & PAYPHONE ENFORCEMENT BRANCH 505 VAN NESS AVENUE SAN FRANCISCO, CA 94102-3214

VICTOR F. BANUELOS CALIF PUBLIC UTILITIES COMMISSION UTILITY & PAYPHONE ENFORCEMENT BRANCH AREA 2-F 505 VAN NESS AVENUE SAN FRANCISCO, CA 94102-3214

JENNIFER CAPITOLO EXE DIR CALIFORNIA WATER ASSOCIATION 601 VAN NESS AVE., STE. 2047, MC E3-608 785 MARKET STREET SUITE 1400 SAN FRANCISCO, CA 94102-6316 SAN FRANCISCO, CA 94103

BRENDA VILLANUEVA MANAGING DIRECTOR AND LEAD COUNSEL THE UTILITY REFORM NETWORK

KATY MORSONY STAFF ATTORNEY THE UTILITY REFORM NETWORK 785 MARKET STREET, SUITE 1400 SAN FRANCISCO, CA 94103 FOR: TURN

REGINA COSTA TELECOM RESEARCH DIR. THE UTILITY REFORM NETWORK 785 MARKET ST., STE. 1400 SAN FRANCISCO, CA 94103

TOM LONG LEGAL DIRECTOR THE UTILITY REFORM NETWORK (TURN) 785 MARKET STREET, SUITE 1400 SAN FRANCISCO, CA 94103

ARIEL STRAUSS COUNSEL - REGULATORY SMALL BUSINESS UTILITY ADVOCATES 548 MARKET ST., SUITE 11200 SAN FRANCISCO, CA 94104

J. PORTER WISEMAN AKIN GUMP STRAUSS HAUER & FELD LLP 580 CALIFORNIA STREET, SUITE 1500 SAN FRANCISCO, CA 94104 FOR: AD HOC COMMITTEE OF SENIOR UNSECURED NOTEHOLDERS OF PACIFIC GAS AND ELECTRIC COMPANY

BRIAN T. CRAGG ATTORNEY DOWNEY BRAND LLP 455 MARKET STREET, SUITE 1500 SAN FRANCISCO, CA 94105 FOR: COUNTY OF MENDOCINO, THE COUNTY OF NAPA, AND THE COUNTY OF SONOMA

CHRISTINE PARK PACIFIC GAS & ELECTRIC COMPANY 77 BEALE ST SAN FRANCISCO, CA 94105

JAMES W. MCTARNAGHAN **ATTORNEY** PERKINS COLE LLP 505 HOWARD ST., STE. 1000 SAN FRANCISCO, CA 94105

JULIE TAN PACIFIC GAS AND ELECTRIC COMPANY 245 MARKET STREET SAN FRANCISCO, CA 94105

MEGHAN DEWEY SR. MANAGER, EE PORTFOLIO MANAGEMENT PACIFIC GAS AND ELECTRIC CO 245 MARKET STREET SAN FRANCISCO, CA 94105

ANALYST - ENERGY & NAT'L RESOURCES BUCHALTER, A PROFESSIONAL CORPORATION JENNER & BLOCK LLP BUCHALTER, A PROFESSIONAL CONTROL 555 SECOND STREET, SUITE 1700 525 MARKET STREET, 2917 SAN FRANCISCO, CA 94105

COUNSEL 525 MARKET STREET, 29TH FLOOR

SAMIR A. HAFEZ, ESQ. ATTORNEY BUCHALTER, A PROFESSIONAL CORPORATION 425 MARKET STREET, 29TH FLOOR SAN FRANCISCO, CA 94105-2491

MARGARET L. TOBIAS TOBIAS LAW OFFICE 460 PENNSYLVANIA AVE SAN FRANCISCO, CA 94107

ADAM BENSAID AREA MANAGER – REGULATORY RELATIONS AT&T SERVICES, INC. 430 BUSH STREET, 5TH FLOOR SAN FRANCISCO, CA 94108

ANDY A. UMANA ATTORNEY AT&T SERVICE, INC. 430 BUSH STREET, ROOM 6043 SAN FRANCISCO, CA 94108

ANKUR PATEL DIRECTOR – REGULATORY AT&T SERVICES, INC. 430 BUSH ST, 5TH FLOOR SAN FRANCISCO, CA 94108 FASSIL FENIKILE DIR - REGULATORY AT&T SERVICES, INC. 430 BUSH STREET, 5TH FL. SAN FRANCISCO, CA 94108

JEFFREY MONDON DIR - REGULATORY AT&T SERVICES, INC. 430 BUSH STREET, 5TH FL SAN FRANCISCO, CA 94108

JOSHUA MATHISEN DIR - REGULATORY AT&T SERVICES, INC. 430 BUSH STREET, 5TH FL. SAN FRANCISCO, CA 94108

RENEE MARFIA AREA MANAGER AT&T SERVICES INC. STATE LEGISLATIVE & REGULATORY AFFAIRS 430 BUSH STREET, 5TH FL. 430 BUSH ST - FIFTH FLOOR SAN FRANCISCO, CA 94108

SAIRA PASHA AREA MGR - REGULATORY RELATIONS AT&T SERVICES, INC. SAN FRANCISCO, CA 94108

SIRK ZENA PROGRAM MANAGER 430 BUSH ST, 6TH FLOOR SAN FRANCISCO, CA 94108

STEVEN BERENBAUM AREA MANAGER AT&T SERVICES, INC. 430 BUSH STREET, 5TH FLOOR SAN FRANCISCO, CA 94108

ANNA FERO ATTORNEY DAVIS WRIGHT TREMAINE LLP 50 CALIFORNIA STREET, 23RD FLR SAN FRANCISCO, CA 94111

ANTHONY BRUNELLO CALIFORNIA STRATEGIES AND ADVOCACY 1 EMBARCADERO CENTER, SUITE 1060 SAN FRANCISICO, CA 94111

DAVTD HUANG ATTORNEY DAVIS WRIGHT TREMAINE LLP 50 CALIFORNIA STREET, 23RD FL. SAN FRANCISCO, CA 94111

JESSICA JANDURA ATTORNEY DAVIS WRIGHT TREMAINE LLP 505 MONTGOMERY STREET, STE. 800 SAN FRANCISCO, CA 94111

JTM TOMITINSON DAVIS WRIGHT TREMAINE LLP 50 CALIFORNIA STREET, 23RD FLR SAN FRANCISCO, CA 94111

KELCIE ABRAHAM 2 EMBARCADERO CENTER SUITE 24 SF, CA 94111

LORI ANNE DOLQUEIST ATTORNEY NOSSAMAN LLP 50 CALIFORNIA STREET, 34TH FLR. SAN FRANCISCO, CA 94111 FOR: CALIFORNIA WATER ASSOCIATION MARK P. SCHREIBER ATTORNEY COOPER, WHITE & COOPER LLP 201 CALIFORNIA ST., 17TH FL. SAN FRANCISCO, CA 94111

EXECUTIVE DIR CALTEL 50 CALIFORNIA ST., STE. 1500

SAN FRANCISCO, CA 94111

SARAH DEYOUNG

VIDHYA PRABHAKARAN ATTORNEY DAVIS WRIGHT TREMAINE LLP 50 CALIFORNIA STREET, 23RD FLR SAN FRANCISCO, CA 94111 FOR: AD HOC COMMITTEE OF SENIOR UNSECURED NOTEHOLDERS OF PACIFIC GAS AND ELECTRIC COMPANY

WILLIS HON ATTORNEY NOSSAMAN LLP 50 CALIFORNIA STREET, 34TH FL. SANF RANCISCO, CA 94111

DAVIS WRIGHT TREMAINE LLP 50 CALIFORNIA STREET, 23RD FLR SAN FRANCISCO, CA 94111

ASHLEY VINSON CRAWFORD ATTORNEY AKIN GUMP STRAUSS HAUER & FELD LLP 100 PINE STREET, STE. 3200 SAN FRANCISCO, CA 94111-5218 FOR: AD HOC COMMITTEE OF SENIOR UNSECURED NOTEHOLDERS OF PACIFIC GAS AND ELECTRIC COMPANY

ALLIE DETRIO CHIEF STRATEGIST REIMAGINE POWER INC 77 SALA TERRACE SAN FRANCISCO, CA 94112

IRENE K. MOOSEN ATTORNEY AT LAW LAW OFFICE OF IRENE K. MOOSEN 53 SANTA YNEZ STREET SAN FRANCISCO, CA 94112 FOR: LOCAL GOVERNMENT SUSTAINABLE ENERGY COALITION (LGSEC)

GERARDO HUERTA ATTORNEY PACIFIC GAS AND ELECTRIC COMPANY PO BOX 7442 SAN FRANCISCO, CA 94120

CASE COORDINATION PACIFIC GAS AND ELECTRIC COMPANY PO BOX 770000; MC B23A SAN FRANCISCO, CA 94177

JIN NOH PRINCIPAL DECODE ENERGY, LLC 622 10TH AVENUE SAN MATEO, CA 94402

ALEXEY ORKIN CONSULTANT FLYNN RESOURCE CONSULTANTS INC. 5440 EDGEVIEW DRIVE DISCOVERY BAY, CA 94505

BARRY FLYNN PRESTDENT FLYNN RESOURCE CONSULTANTS INC. 5440 EDGEVIEW DRIVE DISCOVERY BAY, CA 94505

PUSHKAR WAGLE MANAGING CONSULTANT FLYNN RESOURCE CONSULTANTS INC. 5440 EDGEVIEW DRIVE DISCOVERY BAY, CA 94505

MICHAEL ROCHMAN MANAGING DIR. SCHOOL PROJECT UTILITY RATE REDUCTION 1850 GATEWAY BLVD., STE. 235 CONCORD, CA 94520

BRETT T. KAWAKAMI EBMUD 375 11TH STREET, STE. 200 OAKLAND, CA 94541

GREG LAMBERG PETERSON POWER SYSTEMS, INC. 2828 TEAGARDEN STREET SAN LEANDRO, CA 94577

BENJAMIN BODELL ATTORNEY BEST BEST AND KRIEGER LLP 2001 N MAIN ST., STE. 390 WALNUT CREEK, CA 94596 FOR: PADRE DAM MUNICIPAL WATER DISTRICT

SAJI THOMAS PIERCE EAST BAY MUNICIPAL UTILITY DISTRICT 375 11TH STREET OAKLAND, CA 94607-4240

(PDMWD); VALLEY CENTER MUNICIPAL WATER

DISTRICT (VCMWD)

STEPHEN CAMPBELL
DIR - POLICY, WEST
GRID ALTERNATIVES
1171 OCEAN AVE., SUITE 200
OAKLAND, CA 94608

CATHERINE E. YAP
CONSULTANT
BARKOVICH & YAP, INC.
PO BOX 11031
OAKLAND, CA 94611

ALYSSA T. KOO ATTORNEY PACIFIC GAS AND ELECTRIC COMPANY 300 LAKESIDE DRIVE OAKLAND, CA 94612 BETTY TRAN
PACIFIC GAS AND ELECTRIC COMPANY
300 LAKESIDE DRIVE
OAKLAND, CA 94612

CHARLES R. MIDDLEKAUFF
ATTORNEY
PACIFIC GAS AND ELECTRIC COMPANY
300 LAKESIDE DRIVE, STE. 210, 19TH FL.
OAKLAND, CA 94612

ELECTRIC OPERATIONS COMMITMEN
PACIFIC GAS AND ELECTRIC COMPANY
300 LAKESIDE DRIVE
OAKLAND, CA 94612

EVA CHU
PACIFIC GAS AND ELECTRIC COMPANY
300 LAKESIDE DRIVE
OAKLAND, CA 94612

JOHN NEWTON
PRINCIPAL REGULATORY MANAGER
AVA COMMUNITY ENERGY
1999 HARRISON ST, SUITE 2300
OAKLAND, CA 94612
FOR: AVA COMMUNITY ENERGY AUTHORITY
F/K/A EAST BAY COMMUNITY ENERGY (EBCE)

JULIE CERIO
PACIFIC GAS AND ELECTRIC COMPANY
300 LAKESIDE DRIVE
OAKLAND, CA 94612

PAUL D. HERNANDEZ
PRINCIPAL REGULATORY ANALYST
AVA COMMUNITY ENERGY AUTHORITY
1999 HARRISON ST., STE. 800
OAKLAND, CA 94612
FOR: AVA COMMUNITY ENERGY AUTHORITY
F/K/A EAST BAY COMMUNITY ENERGY (EBCE)

SARAH J. BANOLA
PARTNER
BRB LAW LLP
436 14TH STREET, STE. 1205
OAKLAND, CA 94612

SPENCER OLINEK
PACIFIC GAS AND ELECTRIC COMPANY
300 LAKESIDE DRIVE
OAKLAND, CA 94612

TODD EDMISTER
DIR & DEPUTY GEN. COUNSEL
EAST BAY COMMUNITY ENERGY
1999 HARRISON ST, SUITE 800
OAKLAND, CA 94612
FOR: AVA COMMUNITY ENERGY AUTHORITY
F/K/A EAST BAY COMMUNITY ENERGY (EBCE)

VIKTORIYA MALKINA
CASE MGR - REGULATORY
PACIFIC GAS AND ELECTRIC COMPANY
300 LAKESIDE DRIVE
OAKLAND, CA 94612

WADE A. GREENACRE
REGULATORY CASE COORDINATOR
PACIFIC GAS AND ELECTRIC COMPANY
300 LAKESIDE DRIVE
OAKLAND, CA 94612

ALEXANDRA GREEN
THE CENTER FOR ACCESSIBLE TECHNOLOGY
3075 ADELINE STREET, STE. 220
BERKELEY, CA 94703

MARILYN GOLDEN
SR POLICY ANALYST
DISABILITY RIGHTS EDU. & DEFENSE FUND
3075 ADELINE STREET, STE. 210
BERKELEY, CA 94703
FOR: DISABILITY RIGHTS EDUCATION &
DEFENSE FUND

RACHEL SWEETNAM LEGAL FELLOW CENTER FOR ACCESSIBLE TECHNOLOGY 3075 ADELINE STREET, SUITE 220 BERKELEY, CA 94703

PAUL SCHULMAN SR RESEARCH FELLOW CTR FOR CATASTROPHIC RISK MGNT MILLS COLLEGE MICHAEL CALLAHAN REGULATORY COUNSEL MARIN CLEAN ENERGY 1125 TAMALPAIS AVENUE UNIVERSITY OF CALIFORNIA BERKELEY, CA 94720

SAN RAFAEL, CA 94901

BRIAN E. WASHINGTON COUNTY COUNSEL COUNTY OF MARIN 3501 CIVIC CENTER DRIVE, RM 275 SAN RAFAEL, CA 94903

PHILITP MULLER SCD ENERGY SOLUTIONS 436 NOVA ALBION WAY SAN RAFAEL, CA 94903

RENEE BREWER CHIEF DEPUTY COUNTY COUNSEL COUNTY OF MARIN 3501 CIVIC CENTER DRIVE, RM 275 SAN RAFAEL, CA 94903

MICHAEL ALCANTAR ALCANTAR LAW GROUP 1 BLACKFIELD DRIVE NO. 135 TIBURON, CA 94920

MARC KOLB GRID DEL SOL CONSULTING 46 VISTA DEL SOL MILL VALLEY, CA 94941

TAYLOR KNECHT SAN JOSE CLEAN ENERGY 200 EAST SANTA CLARA STREET, 14TH FLOOR SAN JOSE, CA 95113

LUISA F. ELKINS SR. DEPUTY CITY ATTORNEY CITY OF SAN JOSE

OFFICE OF THE CITY ATTORNEY

200 EAST SANTA CLARA ST., 16TH FL
SANTA BARBARA, CA 95310

SAN JOSE, CA 95113-1905

COUNTY OF SANTA BARBARA

FOR: COUNTY OF SANTA BARBARA FOR: SAN JOSE CLEAN ENERGY

MICHAEL C. GHIZZONI COUNTY COUNSEL

MTCHELLE MONTEZ SR. DEPUTY COUNTY COUNSEL COUNTY OF SANTA BARBARA 105 EAST ANAPAMU ST., STE. 201 SANTA BARBARA, CA 95310 FOR: COUNTY OF SANTA BARBARA

SUE A. GALLAGHER CITY ATTORNEY CITY OF SANTA ROSA 100 SANTA ROSA AVE., RM 8 SANTA ROSA, CA 95404

RICHARD SKAFF EXECUTIVE DIRECTOR DESIGNING ACCESSIBLE COMMUNITIES 15500 MONTE ROSA AVE. GUERNEVILLE, CA 95446

DELPHINE HOU CA. INDEPENDENT SYSTEMS OPERATOR CORP 250 OUTCROPPING WAY FOLSOM, CA 95630

KIM PEREZ CALIFORNIA ISO 250 OUTCROPPING WAY FOLSOM, CA 95630

LAURA J. MANZ DIRECTOR ENERGY NAVIGANT 35 IRON POINT CIRCLE, STE. 225 FOLSOM, CA 95630

STEPHEN KEEHN PACIFIC ENERGY ADVISORS, INC 1839 IRON POINT RD., SUITE 120 FOLSOM, CA 95630

ALEXIA RETALLACK MGR - MRKTG & GOV'T AFFAIRS PIONEER COMMUNITY ENERGY 2510 WARREN DRIVE, SUITE B ROCKLIN, CA 95677

JENINE WINDESHAUSEN FXF. DTR PIONEER COMMUNITY ENERGY 2510 WARRANT DDRIVE, STE. B ROCKLIN, CA 95677

DAVID PEFFER ATTORNEY LAW OFFICE OF DAVID PEFFER 3424 COOK STREET ROCKLIN, CA 95765

JORDAN DAVIS DISABILITY RIGHTS CALIFORNIA 1831 K STREET SACRAMENTO, CA 95811

SAMUEL JAIN STAFF ATTORNEY II DISABILITY RIGHTS CALIFORNIA 1831 K STREET SACRAMENTO, CA 95811 FOR: DISABILITY RIGHTS CALIFORNIA AMY WARSHAUER
MGR - GOV'T & EXTERNAL AFFAIRS
FRONTIER COMMUNICATIONS
1201 K STREET, SUITE 1980
SACRAMENTO, CA 95814

ANNA YANG
CALIF PUBLIC UTILITIES COMMISSION
SAFETY BRANCH
915 L Street Suite 1140
Sacramento, CA 95814

ANTHONY NOLL
CALIF PUBLIC UTILITIES COMMISSION
WILDFIRE SAFETY & ENFORCEMENT BRANCH
300 Capitol Mall
Sacramento, CA 95814

BETH OLHASSO
WEST COAST ADVISORS
925 L STREET, SUITE 800
SACRAMENTO, CA 95814
FOR: AGRICULTURAL ENERGY CONSUMERS
ASSOCIATION

CHARLIE BORN
DIR - GOV'T & EXTERNAL AFFAIRS
FRONTIER COMMUNICATIONS
1201 K STREET, STE. 1980
SACRAMENTO, CA 95814

CHRISTOPHER MARELICH
DOWNEY BRAND LLP
621 CAPITOL MALL, 18TH FLOOR
SACRAMENTO, CA 95814

COLBY BERMEL
POLITICO
925 L STREET STE 150
SACRAMENTO, CA 95814

DAVID PEFFER
ATTORNEY
BRAUN BLAISING SMITH WYNNE, P.C.
555 CAPITOL MALL, SUITE 570
SACRAMENTO, CA 95814
FOR: MARIN CLEAN ENERGY, PENINSULA
CLEAN ENERGY

DAVID PEFFER
ATTORNEY
BRAUN BLAISING SMITH WYNNE, P.C.
555 CAPITOL MALL, STE. 570
SACRAMENTO, CA 95814
FOR: SONOMA CLEAN POWER AUTHORITY

DAVID VAN DYKEN
CALIF PUBLIC UTILITIES COMMISSION
ADMINISTRATIVE LAW JUDGE DIVISION
300 Capitol Mall
Sacramento, CA 95814

DEVLA SINGH
CALIF PUBLIC UTILITIES COMMISSION
WILDFIRE SAFETY & ENFORCEMENT BRANCH
300 Capitol Mall
Sacramento, CA 95814

DRUCILLA DUNTON
CALIF PUBLIC UTILITIES COMMISSION
DISTRIBUTION PLANNING BRANCH
300 Capitol Mall
Sacramento, CA 95814

ELIZABETH MCALPINE
CALIF PUBLIC UTILITIES COMMISSION
COMPLIANCE
300 Capitol Mall
Sacramento, CA 95814

FRANK HARRIS
MGR OF ENERGY REGULATORY POLICY
CA MUNICIPAL UTILITIES ASSOCIATION
915 L STREET, SUITE 1460
SACRAMENTO, CA 95814

FRANKY LAO
CALIF PUBLIC UTILITIES COMMISSION
SAFETY BRANCH
915 L Street Suite 1140
Sacramento, CA 95814

JASDEEP LALLY
CALIF PUBLIC UTILITIES COMMISSION
WILDFIRE SAFETY & ENFORCEMENT BRANCH
300 Capitol Mall
Sacramento, CA 95814

JEDEDIAH J. GIBSON ATTORNEY DOWNEY BRAND LLP 621 CAPITOL MALL, 18TH FLOOR SACRAMENTO, CA 95814 JILL STAFFORD BUCHALTER, A PROFESSIONAL CORPORATION 500 CAPITOL MALL STE 1900 SACRAMENTO, CA 95814

LEIGH KAMMERICH SR. POLICY ADVOCATE RURAL COUNTY REPRESENTATIVES OF CA 1215 K STREET, SUITE 1650 SACRAMENTO, CA 95814 LINETTE YOUNG
CALIF PUBLIC UTILITIES COMMISSION
CONSUMER AFFAIRS BRANCH
300 Capitol Mall
Sacramento, CA 95814

MABEL WU
CALIF PUBLIC UTILITIES COMMISSION
WILDFIRE SAFETY & ENFORCEMENT BRANCH
300 Capitol Mall
Sacramento, CA 95814

MAHDI JAHAMI CALIF PUBLIC UTILITIES COMMISSION WATER AND SEWER ADVISORY BRANCH 300 Capitol Mall Sacramento, CA 95814

MICHAEL BOCCADORO
PRESIDENT
WEST COAST ADVISORS
925 L STREET, SUITE 800
SACRAMENTO, CA 95814
FOR: AGRICULTURAL ENERGY CONSUMERS
ASSOCIATION

MIHAIL CUCU
CALIF PUBLIC UTILITIES COMMISSION
WILDFIRE SAFETY & ENFORCEMENT BRANCH
300 Capitol Mall
Sacramento, CA 95814

REGULATORY CLERK
BRAUN BLAISING SMITH WYNNE, PC
915 L STREET, STE. 1480
SACRAMENTO, CA 95814

RONALD DEMAYO
CALIF PUBLIC UTILITIES COMMISSION
WILDFIRE SAFETY & ENFORCEMENT BRANCH
300 Capitol Mall
Sacramento, CA 95814

SAMANTHA HOLDSTOCK PARALEGAL STOEL RIVES LLP 500 CAPITOL MALL, STE. 1600 SACRAMENTO, CA 95814 SARAH KOZAL CALIFORNIA ISO 250 OUTCROPPING WAY FOLSOM, CA 95814

SCOTT BLAISING
COUNSEL
BRAUN BLAISING SMITH WYNNE P.C.
915 L STREET, SUITE 1480
SACRAMENTO, CA 95814

STEPHANI CRESPIN
CALIF PUBLIC UTILITIES COMMISSION
CARRIER OVERSIGHT AND PROGRAMS BRANCH
400 R Street
Sacramento, CA 95814

WILLIAM DIETRICH

SR. ATTORNEY

CALIFORNIA ENERGY COMMISSION

CHIEF COUNSEL'S OFFICE

715 STREET, MS-14

SACRAMENTO, CA 95814

XUAN CHEN
CALIF PUBLIC UTILITIES COMMISSION
WILDFIRE SAFETY & ENFORCEMENT BRANCH
300 Capitol Mall
Sacramento, CA 95814

JEFFERY D. HARRIS ATTORNEY ELLISON SCHNEIDER HARRIS & DONLAN LLP 2600 CAPITOL AVENUE, STE. 400 SACRAMENTO, CA 95816 MANAL YAMOUT MCDERMID (ELSI) CALIBER STRATEGIES PO BOX 160724 SACRAMENTO, CA 95816

ANDREW B. BROWN
ATTORNEY AT LAW
ELLISON SCHNEIDER HARRIS & DONLAN LLP
2600 CAPITOL AVENUE, SUITE 400
SACRAMENTO, CA 95816-5931

SUSAN LIPPER
SR. MGR. - GOV'T AFFAIRS
T-MOBILE WEST LLC
1755 CREEKSIDE OAKS DRIVE, STE. 190
SACRAMENTO, CA 95833

MOUSTAFA ABOU-TALEB
CALIF PUBLIC UTILITIES COMMISSION
SAFETY POLICY DIVISION
180 Promenade Circle, Suite 115
Sacramento, CA 95834

SARBJIT BAGRI
CALIF PUBLIC UTILITIES COMMISSION
SAFETY MANAGEMENT SYSTEM BRANCH
180 Promenade Circle, Suite 115
Sacramento, CA 95834

JESSICA NELSON
GENERAL MANAGER
GOLDEN STATE POWER COOPERATIVE
PO BOX 1815
GRAEGLE, CA 96103-1815

JENNIFER FRY
FERC SPECIALIST / PRACTICE ASSIST.
STOEL RIVES LLP
760 SW NINTH AVENUE, SUITE 3000
PORTLAND, OR 97205

POOJA KISHORE HENRY SWEAT

MGR - REGULATORY AFFAIRS
PACIFICORP
825 NE MULTNOMAH ST., STE. 2000
PORTLAND, OR 97232
FOR: PACIFIC POWER

CALIF PUBLIC UTILITIES COMMISSION SAFETY POLICY DIVISION

# State Service

MICHAEL MINKUS
CALIF PUBLIC UTILITIES COMMISSION
COMMUNICATIONS DIVISION
ROOM 5303
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

TOP OF PAGE
BACK TO INDEX OF SERVICE LISTS