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Docket: 2026-2028 Electrical Corporation Wildfire Mitigation Plans
Docket# 2026-2028-Base-WMPs
Revision 0
Volume 1 of 1

June 30, 2025

Tony Marino
Deputy Director
Office of Energy Infrastructure Safety
715 P Street, 20th Floor
Sacramento, CA 95814

SUBJECT: SCE's Nonsubstantive Errata for the 2026-2028 Wildfire Mitigation Plan (WMP)

Dear Deputy Director Marino:

On May 16, 2025, SCE submitted its 2026-2028 Base WMP R0 to the Office of Energy Infrastructure Safety (OEIS). On June 2, 2025, SCE requested corrections to substantive errors in accordance with the OEIS Process Guidelines, Section 7, concerning errata. SCE has identified nonsubstantive errors in the 2026-2028 Base WMP R0 and requests further updates to the WMP. SCE's corrections are set forth in the table and redlines on the following pages.

SCE's 2026-2028 WMP and associated materials are available at https://www.sce.com/wmp/.

Sincerely, //s//

Gary Chen
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### Table of Nonsubstantive Errata

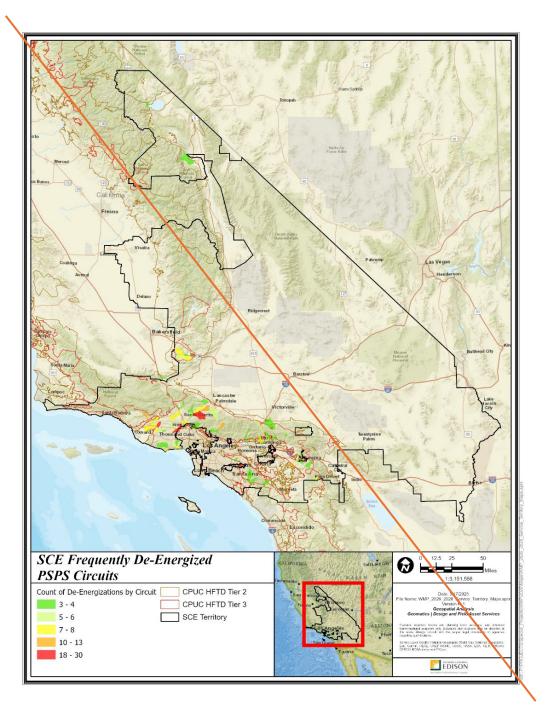
The table below lists requested corrections to the May 16, 2025 submission of SCE's 2026-2028 Base WMP R0.

Section	Table or Figure (if applicable)	Page Number(s)	Description of Correction	Reason for Correction
4.3	Figure SCE 4-03	38	Updated the map of SCE Frequently De-Energized Circuits to align with the changes requested in SCE's June 2, 2025 Substantive Errata.	SCE's June 2, 2025 Substantive Errata identified that several circuits listed in Table 4- 3 should be added or removed, and added Dates of Outages for some circuits already listed.
5.2.1.1	Figure SCE 5-02	48	Amended to remove "very" from "1D (very dry, not windy)."	The Fire Behavior Outcomes (FBO) for 1D is dry and not windy.
5.2.1.2.1.1	Figure SCE 5-05 and Figure SCE 5-07	52-53	Updated to add "Fire Risk" to clarify the egress-constrained areas.	The simulated wildfire risk scores are at Fire Risk Egress Constrained Areas.
5.2.2.2.2	N/A	80	Changed "Figure SCE 5-27 below" to "Figure 5-28 below"	The figure number reference was incorrect.
5.2.2.2.2	N/A	83-84	Updated the quadrant references from 4D to 4C and from 4D to 4A.	The quadrants were incorrectly listed.
8	N/A	233, 246, 250, 263, 272, 278, 281, 283, 286	Amended figure number references in text in seven instances due to incorrect labeling.	The figure number references were incorrect.
9.1	Table 9-2	331	Changed % HFTD Covered in 2026 for VM-7 from 100% to 85% and for VM-8 from 100% to 86%.	100% was entered in error and the correct annual % HFTD coverage is 85% for VM- 7 and 86% for VM-8.
10.1	Table 10-1	377	Updated Risk Reduction for Early Fault Detection (SA- 11) to 0.11% for 2026, 0.13% for 2027, and 0.19% for 2028 in alignment with Excel Table 10-1.	Table 10-1 has a risk reduction value for SA-11 in the Excel Tables and Table 6-3 but not in the PDF 2026-2028 Base WMP RO.

Section	Table or Figure	Page	Reason for Correction				
	(if applicable)	Number(s)	Correction				
10.2	N/A	381	Amended "over 1,450"	At the end of 2024, SCE			
			to "approximately	owned 1,446 weather			
			1,450".	stations capable of			
				relaying 30-second, real			
				time reads.			
Appendix	N/A	575	Removed references	SCE's quasi-probabilistic			
D			to Sections 3.7 and	approach is addressed			
			5.3.2.	only in Section 5.2.			

Figure SCE 4-03 shows a map of the frequently de-energized circuits. SCE has provided spatial data for the frequently de-energized circuits, which can be found on SCE's website.<sup>27</sup>





<sup>27</sup> Please see <a href="https://www.sce.com/wmp">https://www.sce.com/wmp</a>.

<sup>28</sup> Map data as of 1/1/2025-6/2/2025. SCE has provided spatial data for SCE's service territory at <a href="https://www.sce.com/wmp">https://www.sce.com/wmp</a>.

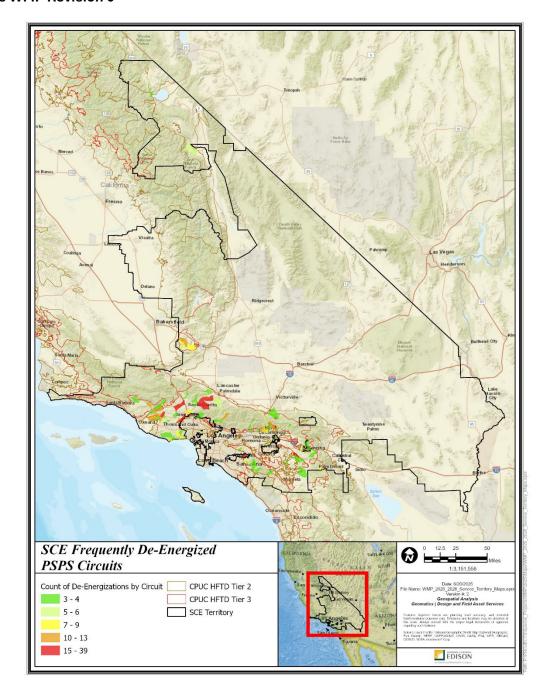
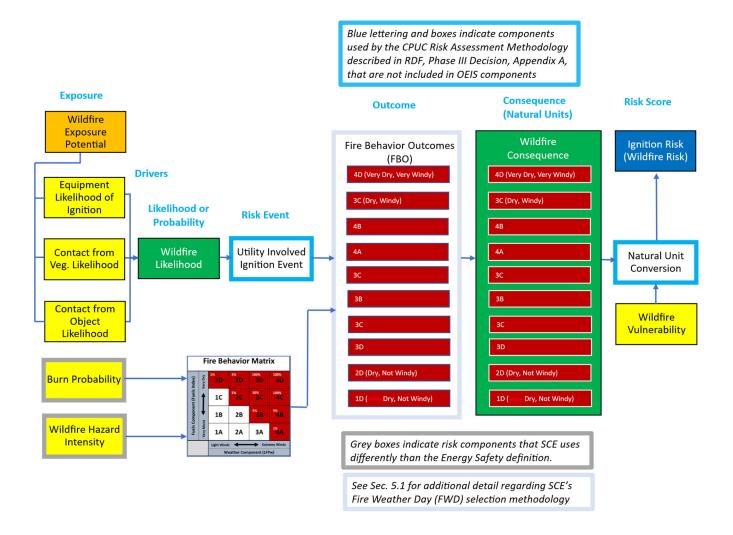


Figure SCE 5-02: Risk Bowtie Depicting SCE's MARS Framework Consistent with CPUC RDF<sup>39</sup>



<sup>39</sup> CPUC Risk Informed Decision-Making Proceeding R.20-07-013.

Astellage Valley

Lancaster

Palmdale

Wictorvile

Santa Silva

Son Angeles of Monte

Constrained Areas

SCE High Fire Risk Area (HFRA)

Tier 2

Tier 3

BL322

Figure SCE 5-05: Example of Identified Population Fire Risk Egress-Constrained Locations in SCE HFRA

SCE used historical fire perimeters from CAL FIRE's and Resource Assessment Program (FRAP) database to create hexagons <sup>42</sup> to create an index based on the relative fire frequency of each location (see Figure SCE 5-06). A higher score indicates a higher historical fire frequency.

<sup>42</sup> Fire perimeters from Cal Fire FRAP database from 1970 to 2020. Fire Frequency hexagons are based on the same hexagon alignment used to identify population egress constrained locations.

Fire Scars (1970-2023)

SCE High Fire Risk Area (HFRA)

1 - 2

3 - 4

Tier 2

3 - 4

Tier 3

5 - 6

7 - 8

9 - 10

11 - 12

13 - 14

15 - 16

15 - 16

Figure SCE 5-06: Identify Areas with a High Historical Fire Frequency in SCE HFRA

SCE then overlaid the population egress-constrained areas with locations that have experienced high historical fire frequency. SCE flagged hexagons with both limited road availability and a high burn frequency based on these indices as potential Fire Risk Egress Constrained Areas.

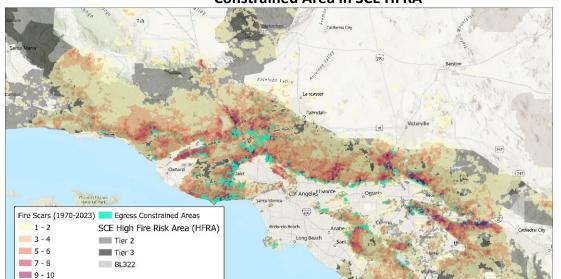


Figure SCE 5-07: Example Overlay of High Historical Frequency of Fires with Fire Risk Egress-Constrained Area in SCE HFRA

Next, SCE used simulated wildfire risk scores around these Fire Risk Egress Constrained Areas, to determine which locations could burn into Fire Risk Egress Constrained Areas within the simulated burn period, using the following steps (see <u>Figure SCE 5-08</u>).

11 - 12 13 - 14 15 - 16 >16

Catalog of Fire Weather Conditions SCE HFRA Acres, buildings, and population within the simulated fire shed Acres (Max) Consequence **Buildings** Simulated fire shed Simulated Population ignition point Match-drop ignition and Max consequence fire simulation at each output at each SCE asset location asset location **Fuel Moisture** Surface fuels

Figure SCE 5-27: Schematic of SCE Wildfire Consequence Modeling (8 Hours, Unsuppressed)

#### Key inputs and sources

### 5.2.2.2. Summary of Updates to the Wildfire Consequence Model

This section provides a summary of the updates from WRRM to SCE's FireSight 8 Wildfire Consequence Model. Further supporting information can be found in Appendix B: Supporting Documentation for Risk Methodology and Assessment.

As mentioned in its 2025 WMP Update, SCE committed to exploring methods that would allow it to transition to a quasi-probabilistic wildfire consequence model to better represent fire weather in local regions, while maintaining the integrity of its existing underlying granular wildfire risk modeling architecture (see SCE response to SCE-23-02 Calculating Risk Scores Using Maximum Consequence Values in its 2025 WMP Update, as well as Appendix D:Areas for Continued Improvement: ACI SCE-25U-01 Calculating Risk Scores Using Maximum Consequence Values).

SCE believes the FireSight 8 model accomplishes these objectives. FireSight 8's FCZ- based FWD methodology allows SCE to extract granular consequence distributions at every ignition point (see Figure SCE 5-287, below) and helps SCE to understand how these conditions may change based on future climate conditions (see Section 3.7, as well as Appendix D:Areas for Continued Improvement). ACI SCE 23B-04 Incorporation of Extreme Weather Events into Planning Models; and ACI SCE-25U-02 Cross-Utility Collaboration on Best Practices for Inclusion of Climate Change Forecasts in Consequence Modeling, Inclusion of Community Vulnerability in Consequence Modeling, and Utility Vegetation Management for Wildfire Safety for additional detail). Note: SCE has developed a schematic depicting Wildfire Risk modeling for

**Fire Weather Day (FWD)** – a day within a complete set of TWDs in which fuel moisture, wind, and humidity characteristics represent conditions conducive to a wildfire event. These days represent a subset of all days within SCE historical weather and fuels data set.

**Fire Climate Zone (FCZ)**— a geographic area having similar terrain, fuels, weather, and fire activity. These locations represent a subset of SCE's service territory.

**Fire Behavior Matrix (FBM)** – a matrix used to select FWD from SCE's historical climatology for a given FCZ. Individual quadrants of the FBM are referred to as Fire Behavior Outcomes. Each FCZ is represented by a single FBM. Each FBM contains 16 individual Fire Behavior Outcomes.

**Fire Behavior Outcome (FBO)** – a specific quadrant of a FBM. Each FBO represents a specific ranking of fuel dryness and windiness relative to other weather conditions in each FCZ. Quadrants 1D, 2D, 3D, 4D, 2C, 3C, 4CD, 3B, 4B, 4AD represent days that are conducive to wildfire events in specific FCZ. The ratio of FWD to TWD, as well as the sum of FBO-specific FWD in comparison to TWD, can be used to derive a historical frequency of fire weather conditions. The former can be used to derive a FCZ wide frequency, while the latter can be used to derive a more granular FBO specific frequency. These frequencies can, in turn, be used in conjunction with the corresponding simulated consequences to derive a quasi-probabilistic assessment of the relative risk of individual locations for any duration of simulation (e.g., 8 or 24 hours).

FWDs are one of the most critical inputs into wildfire risk models as these inputs – along with surface fuels – are critical factors in estimating the extent of wildfire consequences. They represent the live and dead fuel moisture, wind (intensity, speed, direction), and other critical weather attributes present at the time of the simulated ignition events. In previous REAX-based versions of SCE's wildfire risk model, weather days were selected to match the days employed during the development of the CPUC HFTD Fire Map process. These REAX-based fire weather days were intended to represent the fire weather present in the entire state of California.

When SCE transitioned to Technosylva-based models (WRRM 5.1 through 7.6) and 41 weather days, SCE added 403 weather days to further represent specific fire weather days within SCE's service territory. This important advancement allowed SCE to understand the nuances of conditions within each portion of its service territory; however, it also lacked the granularity to represent the fire weather conditions within each of the varied regions of its service territory.

In FireSight 8, SCE remedied this issue by selecting FWDs to align with a carefully curated dataset of fire weather conditions germane to each of its Fire Climate Zones (FCZ). FCZs are specific areas of SCE's service territory with similar terrain, fuels, weather, and fire activity. For example, wildfires in certain FCZs are more wind driven, while wildfires in other FCZ are more driven by dry fuel conditions. In this latest version of the model, SCE only used FWD relevant to individual FCZs to run ignition simulations in those FCZ (see Figure SCE 5-29). This is an important advancement, as the consequences resulting from these simulations are better able to represent: 1) the nuances of fires weather conditions in each FCZ, 2) the frequency of FBO, and 3) the distribution of relevant-to-specific ignition points within each geographic area of SCE's service territory. In essence, SCE has transformed a deterministic model into a quasi-probabilistic model without the need for course calibration of stochastic models and the associated systemic uncertainties.

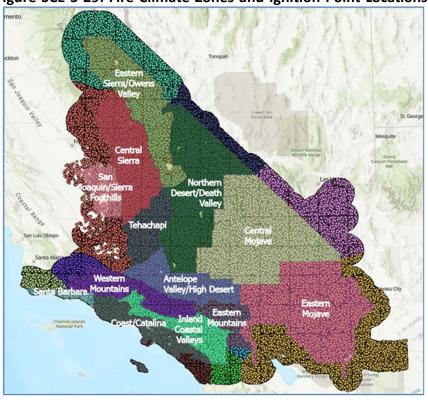


Figure SCE 5-29: Fire Climate Zones and Ignition Point Locations

Note: Areas outside of SCE's service territory employ FWDs from adjacent FCZs to represent fire weather conditions in those locations.

SCE used a FBM to select FWD from TWD in a historical climatology area for a given FCZ. FWD are days in which fuel moisture, wind, and weather data represent conditions conducive to a wildfire event, whereas TWD are days that represent the full set of fuel moisture, wind, and weather data for both Fire and non-Fire Weather Days in SCE's historical climatology. By selecting only relevant FWD from a full set of TWD obviates the need to consider Burn Probability (BP). Therefore, for the sake of completeness, SCE assumes a conditional burn probability of "1" within the OEIS WMP guidance. The FBM (Figure SCE 5-30) is generated with the use of weather index data (along the x-axis) and fuels index data (along the y-axis). Each axis contains three break points to create sixteen (4x4) individual quadrants.

Individual quadrants of the FBM are referred to as FBOs. Each FCZ is represented by a single FBM. Each FBM contains 16 individual FBOs. The FBM is generated with the use of Large Fire Potential related to Weather (LFPw) data (the weather component along the x-axis) and the Fuels Index (FI) data (the fuels component along the y-axis). Each component has three break points to create individual quadrants representing specific weather conditions (see Figure SCE 5-29, above). Each FBO represents a specific ranking of fuel dryness and windiness relative to other weather conditions in the FCZ. Quadrants 1D, 2D, 3D, 4D, 2C, 3C, 4CB, 3B, 4B, 4AB are FBO that represent fire weather conditions. The TWD in SCE's historical climatology can be allocated to each of these FBO to determine a count or frequency of both TWD and the subset of FWD for each FCZ. Figure SCE 5-31 depicts the ratio of FWD to TWD based on the historical frequency of FBO for select FCZ. These frequencies can then, in turn, be used in conjunction with the corresponding simulated consequences to derive a quasi-probabilistic assessment of the relative risk of individual locations for any duration of simulation (e.g., 8 or 24 hours). SCE is in

AGBD is conceptually similar to GLDS but differs by installing a shallow cable trench that sits at ground level, as show in Figure SCE 8-045b.

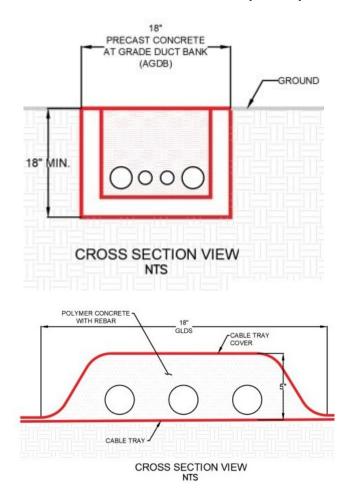


Figure SCE 8-04b: Cross-Section View of AGDB (above) and GLDS (below)

Other potential benefits include cost savings from less soil disposal and restoration, the ability to install in more rugged/rough terrain, and minimal construction impacts to the surrounding area. SCE has benchmarked with PG&E to learn about their GLDS pilot, which appears to preliminarily bear out these benefits. Lines and trays installed in this fashion are far less prone to vegetation-related risks and offer protection from pedestrians and vehicles.

During the pilot, SCE will seek to determine constructability of this technology so that SCE standards can potentially be developed for future installations. SCE will also determine if costs and operational reliability in practice are as advertised.

#### Impact of activity on wildfire risk:

The expected percent wildfire risk reduction/effectiveness, with level of granularity included, for the activity, including an explanation of the calculation, a list of assumptions, and justifications for each assumption.

- VM-2.2: Compliance Structure Brushing (Section <u>9.4.1.1</u>)
- SA-11: Early Fault Detection (EFD) (Chapter 10.3.1)
- SA-14: Distribution Open Phase Detection (DOPD) (Chapter 10.3.1)

### 8.2.6 Emerging Grid Hardening Technology Installations and Pilots

### 8.2.6.1 Rapid Earth Fault Current Limiter – Ground Fault Neutralizers

Tracking ID: SH-17

**Overview of activity:** The Rapid Earth Fault Current Limiter (REFCL) initiative uses technology that detects ground faults as small as a half ampere on one phase of a three-phase powerline. This technology almost instantly reduces the voltage on the faulted conductor while boosting the voltage on the two remaining phases. This allows SCE to maintain service for customers while extinguishing arcs. SCE is using its REFCL program in HFRA to reduce the energy released from ground faults to mitigate the risk of an ignition.

SCE uses two approaches to implement REFCL technology: Ground Fault Neutralizer (SH-17) and Grounding Conversions (SH-18).

Ignitions caused by single phase to ground faults can be mitigated with the use of the Ground Fault Neutralizer (GFN), which reduces fault energy by a factor of a thousand or more compared to typical utility designs. A GFN can detect and act upon ground faults as small as a half ampere, making it substantially more sensitive than traditional protection.

The GFN is likely to be the preferred REFCL design for large substations. Large systems produce greater fault currents, which benefit more from the additional equipment used in a GFN project. Figure SCE 8-078 below shows an example of a GFN.



Figure SCE 8-07: Image of a Ground Fault Neutralizer

overhead and underground circuitry. Typical grounding conversion projects cover 2 to 15 miles of circuitry.

Smaller substations produce lower fault current and resonant grounding alone can be used to reduce fault currents to help mitigate ignitions from ground faults. Grounding conversions for distribution circuitry outside of the substation is also possible in two variations: (1) the application of isolation transformers, and (2) the application of what SCE calls "pole tops."

Figure SCE 8-089, below, provides typical example of an overhead isolation transformer application.



Figure SCE 8-08: Isolation (Iso) Bank Transformer (12kV to 12kV)

Figure SCE 8-940 below shows a pad-mounted isolation transformer installation. Overhead isolation transformer installations have a few limitations when compared to the pad-mounted alternative, with the main limitation being smaller sized equipment, which can limit the amount of customer load that can be converted to the REFCL scheme. The pad-mounted isolation transformers can be built much larger and therefore be applied to serve more customer load.

- SA-11: Early Fault Detection (EFD) (Chapter 10.3.1)
- SA-14: Distribution Open Phase Detection (DOPD) (Chapter 10.3.1)

#### 8.2.9 Line Removal (in the HFTD)

In 2025, SCE will assess and disconnect, or remove as appropriate, energized idle distribution facilities in HFRA and HFRA-adjacent areas. This activity may extend to 2026, depending on the scope of facilities that need to be disconnected or removed.

### 8.2.9.1 Remote Grid Feasibility Study for Wildfire Reduction

Tracking ID: 8.2.9.1

**Overview of the Activity:** SCE is evaluating several potential remote grid projects for the 2026-2028 timeframe. A remote grid is a configuration where a small number of customers in remote locations are served entirely by local Distributed Energy Resources (DERs) that are disconnected from the SCE grid, as shown in Figure SCE 8-112. These are a type of microgrid, without the option to be connected to the larger grid.

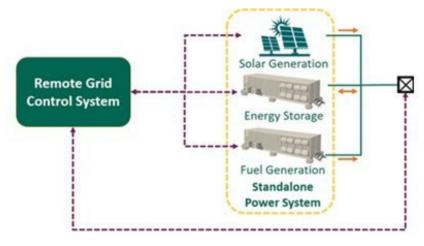


Figure SCE 8-11: Remote Grid System Diagram

Remote grid systems are composed of solar PV, battery energy storage, backup fuel generator and grid system controller to form a permanent islanded power system co-located with the customer loads. Customers in remote areas with relatively small and steady load (typically < 100 kW) can potentially be served by remote grids, allowing for improved resiliency by isolating the customer loads from other portions of the grid where ignitions or faults may occur (i.e., the overhead portion of the grid serving those customers). As SCE's IWMS identifies undergrounding line segments in severe risk areas where there are egress constraints and other high-risk criteria, remote grids may be a viable alternative to reducing ignition risk in select cases where undergrounding of distribution lines are infeasible or very expensive (see Section 8.2.2 for a discussion of SCE's undergrounding initiatives).

There are potential additional benefits, such as reduced vegetation management and inspection work, because the long lines that connect the customer load to the rest of the grid will be removed. A related activity is the Microgrid Assessment discussed in Section 8.2.7.1.

The electrical corporation must then provide a narrative overview of each asset inspection activity (program) identified in the above table; Section 8.3.1. provides instructions for the overviews. The sections should be numbered Section 8.3.1 to Section 8.3.n (i.e., each asset inspection activity [program] is detailed in its own section). The electrical corporation must include inspection activity (programs) it is discontinuing or has discontinued since the last WMP submission; in these cases, the electrical corporation must explain why the activity (program) is being discontinued or has been discontinued. The electrical corporation must also include inspection activities (programs) being piloted; for pilot inspection activities (programs), the electrical corporations must include a discussion of how it measures the effectiveness of the pilot and how it determines next steps for the pilot (e.g. to expand, discontinue, or move to permanent activity [program]).

# 8.3.1 Distribution High Fire Risk-Informed (HFRI) Inspections - Ground and Aerial (IN-1.1)

#### 8.3.1.1 **Overview**

In this section, the electrical corporation must provide an overview of the individual asset inspection activity (program), including inspection criteria and the various inspection methods used for each inspection activity (program).

SCE performs visual detailed inspections of distribution facilities as part of its routine practices throughout its service territory in compliance with GO 165. Degradation of equipment and structures as part of wear and tear during normal operations and due to external factors, such as weather or third-party caused damage, increases the probability of in-service malfunction or failures that can have safety and service reliability impacts. GO 95 provides guidance on overhead electric line construction standards and GO 165 provides guidance on the maximum intervals for inspections. SCE performs inspections in HFRA that go beyond the GO 95 and GO 165 requirements as described below.

To identify equipment or structure degradation that occurs between compliance cycles that could lead to a potential ignition risk, SCE conducts more frequent and ignition-focused risk inspections in HFRA beyond GO 165 requirements ("High Fire Risk-Informed inspections" or "HFRI inspections"). For an example of an inspection finding, see the cracked Hendrix insulator shown below in Figure SCE 8-123.

Since 2019, SCE has performed aerial detailed visual inspections via helicopter or drone (as shown below in Figure SCE 8-134) in HFRA to supplement ground-based inspections. SCE also conducts ground inspections because they may detect conditions difficult to identify via aerial inspections, such as the state of guy anchors or damaged structures like wood poles and guy stub poles (see Figure SCE 8-15 and Figure SCE 8-146 below).

In 2023, SCE began conducting single-visit 360 inspections for distribution assets (33kV and below), combining ground and aerial checks. This process usually involves both an inspector and a pilot, but sometimes one inspector can perform both. By 2024, most distribution inspections used the 360 method, with exceptions where only ground or aerial inspections were feasible due to terrain or other constraints. SCE plans to continue 360 HFRI inspections from 2025 onward.

methods. Examples of asset clearances include conductor-to-conductor spacing, clearances between guy wires and energized conductors.

In 2026-2028, SCE will have a better understanding of cost and requirements to deploy LiDAR effectively as part of its asset inspection strategy. SCE's adoption of LiDAR technology represents a forward-looking approach. By leveraging remote sensing and imaging techniques, SCE aims to enhance the reliability and safety of its electrical distribution and transmission systems.

# 8.3.2 Transmission High Fire Risk-Informed (HFRI) Inspections - Ground and Aerial (IN-1.2)

#### **8.3.2.1** Overview

In this section, the electrical corporation must provide an overview of the individual asset inspection activity (program), including inspection criteria and the various inspection methods used for each inspection activity (program).

SCE performs detailed inspections of SCE's overhead transmission electric system in compliance with regulatory requirements including GO 165, NERC and WECC rules and regulations, and the CAISO Transmission Control Agreement.

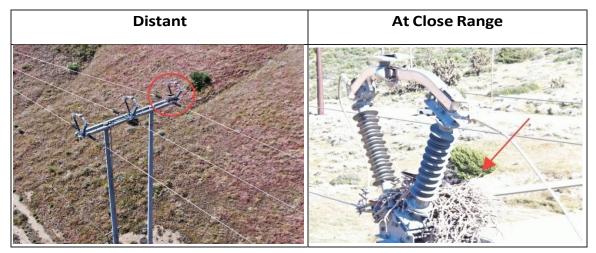
To identify transmission equipment or structure degradation that occurs between compliance cycles due to natural wear and tear or emergent events such as weather or third-party caused damages that could lead to a potential ignition risk, SCE has implemented more frequent and ignition-focused HFRI on transmission equipment and structures in HFRA.

As with distribution inspections, aerial inspections supplement ground-based inspections. Aerial inspections are typically performed at the same locations as ground inspections and in combination provide a 360-degree view to detect equipment/structure conditions that can be difficult to identify via ground inspections.

SCE conducts the 360-degree view detailed inspection for its structures in HFRA regardless of scope driver (i.e. risk or compliance).

For an example of a 360-inspection, see Figure SCE 8-167.

Figure SCE 8-16: Animal Nest Found on Transmission Switchgear (Drone Capture)



components called "hot spots" that may indicate deterioration in structures and equipment not visible to the naked eye. IR inspections can detect conditions that may indicate a wide range of anomalies, including, but not limited to, failing switch and fuse contacts, poor connections, loose bushings, and overloaded/failing transformers.

Most inspections are performed from ground vehicles; however, a small percentage of the inspections require the inspector to hike to the structure or perform the inspection from a helicopter.

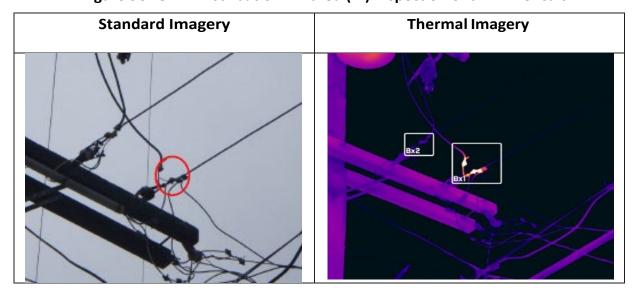


Figure SCE 8-17: Distribution Infrared (IR) Inspection of a 12kV Circuit

Include relevant visuals and graphics depicting the workflow and decision-making process the electrical corporation uses for the inspection activity (program).

Figure 8-31c depicts the workflow and decision process regarding distribution infrared (IR) inspections.

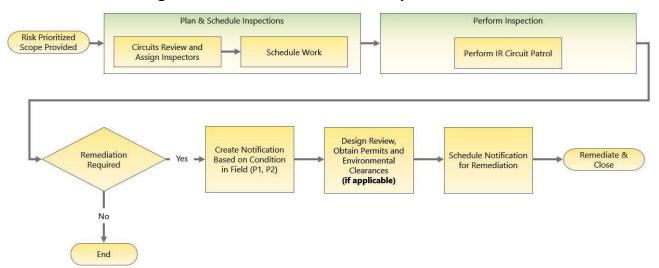


Figure 8-3: Distribution Infrared Inspections Workflow

#### 8.3.4 Transmission Infrared (IR) and Corona Scanning (IN-4)

#### 8.3.4.1 **Overview**

In this section, the electrical corporation must provide an overview of the individual asset inspection activity (program), including inspection criteria and the various inspection methods used for each inspection activity (program).

Similar to Distribution IR scanning, Transmission IR and corona scanning offer a substantial benefit beyond standard visual inspections, as they can detect anomalies within structures and equipment not visible to the naked eye. Particular attention is paid to splices, conductor connection/attachment points, and insulators.

Similar to the distribution IR scanning protocol, the infrared scan detects temperature differences and heat signatures of components, which may indicate problems that could result in component/conductor failure. Corona scanning is an additional technology that is used on transmission circuits in HFRA to detect certain anomalies (e.g., insulator failures) that are not as common on distribution circuits.

Corona detection is accomplished by identifying ultraviolet energy, which is generated by electric discharge or "leakage" due to the ionization of air surrounding high voltage electric components. In some cases, the "leakage" is substantial enough that it may result in an arc flash and potential ignition.

Figure SCE 8-189 below shows an example of a defect that was captured by an Infrared scan that could not be detected during a visual or Corona inspection. Helicopters (see Figure SCE 8-1920 below) are used for these inspections due to the long distances between structures and because these assets are frequently located on rugged terrain.

See Figure SCE 8-189 for an example of standard and infrared imagery.

Visual Infrared Corona Scan

Figure SCE 8-18: Control-Haiwee-Inyokern 115kV line

Figure 8-61e depicts the workflow and decision process regarding generation inspections.

Plan & Schedule Inspections Perform Inspection Risk Prioritized Schedule and Assign Scope Provided Perform Generation Work Inspection Design Review. Create Notification Obtain Permits and Remediation Schedule Remediate & Yes Based on Condition Environmental Required Remediation in Field (P1, P2, P3) Clearances (if applicable) No Fnd

Figure 8-5: Generation Inspections Workflow

### 8.3.5.2 Frequency or Trigger

In this section, the electrical corporation must identify the frequency (including how frequency may differ by HFTD Tier or other risk designation[s]) or triggers used in the inspection activity (program), such as inputs from the risk model.

If the inspection activity (program) is schedule-based, the electrical corporation must explain how it uses risk prioritization in the scheduling of the inspection activity (program) to target high-risk areas. If the electrical corporation does not use risk prioritization in the scheduling of the inspection activity (program), it must explain why.

The frequency of generation HFRI inspections is based on each asset's calculated risk, based on POI and Technosylva consequence. SCE inspects the generation assets that pose 75% of the highest risk on an annual cadence. The assets that pose the lowest 25% are lower risk and are divided equally over a two-year cycle. This allows SCE to inspect approximately 88% of the risk associated with these facilities on a yearly basis.

Generation inspections are scheduled to be executed in an operationally efficient manner, which consider weather conditions and geographical location and are completed before peak fire season.

### 8.3.5.3 Accomplishments, Roadblocks, and Updates

In this section, the electrical corporation must discuss:

 How the electrical corporation measures success for the inspection activity (program) (excluding routine inspections).

In 2024, SCE completed inspections on 225 generation-related assets in HFRA, which exceeded the target of 160 generation related assets.

 Roadblocks the electrical corporation has encountered while implementing the inspection activity (program) and how the electrical corporation has addressed the roadblocks.

### Table 9-2: SCE Vegetation Inspections and Pole Clearing Targets by Year

Activity (Program)	Tracking ID	Previous Tracking ID, if applicable	Target Unit	Cumulative (Cml.) Quarterly Target 2026, Q1	Cml. Quarterly Target 2026, Q2	Cml. Quarterly Target 2026, Q3	Cml. Quarterly Target 2026, Q4	Cml. Quarterly Target 2027, Q1	Cml. Quarterly Target 2027, Q2	Cml. Quarterly Target 2027, Q3	Cml. Quarterly Target 2027, Q4	Cml. Quarterly Target 2028, Q1	Cml. Quarterly Target 2028, Q2	Cml. Quarterly Target 2028, Q3	Cml. Quarterly Target 2028, Q4	% HFTD covered in 2026	% Risk Reduction for 2026	% Risk reduction for 2027	% Risk reduction for 2028	Three- year Total	Activity Timeline Target [1]	Section; Page Number
Vegetation Manage	Hazard Tree Management Program (VM-1)	VM-1	Circuit Miles Inspected	1,040	2,600	4,300	Inspect 5,300 circuit miles and prescribe mitigation for hazardous	1,040	2,600	4,300	Inspect 5,300 circuit miles and prescribe mitigation for hazardous	1,040	2,600	4,300	Inspect 5,300 circuit miles and prescribe mitigation for hazardous	57%	0.04%	0.04%	0.04%	15,900	P1 within 72 hours [2] P2 and all other prescriptions within 30-	9.2; p. <u>332</u> .
							trees with strike potential within SCE's HFRA				trees with strike potential within SCE's HFRA.				trees with strike potential within SCE's HFRA.						180 days	
9.2 Vegetation Management Inspections	Dead and Dying Tree Removal (VM-4)	VM-4	Circuit Miles Inspected	1,000	2,800	4,900	Inspect 6,100 circuit miles and prescribe mitigation for dead and dying trees with strike potential within SCE's	1,000	2,800	4,900	Inspect 6,100 circuit miles and prescribe mitigation for dead and dying trees with strike potential within SCE's	1,000	2,800	4,900	Inspect 6,100 circuit miles and prescribe mitigation for dead and dying trees with strike potential within SCE's	65%	0.06%	0.05%	0.05%	18,300	P1 within 72 hours  P2 and all other prescriptions within 30- 180 days	9.2; p. 332.
9.2 Vegetation Management Inspections	Inspections for Vegetation Clearance from Distribution Lines (VM-7)	VM-7	Circuit Miles Inspected	1,874	3,907	6,076	miles within distribution system in HFRA and prescribe mitigation as needed to achieve	1,874	3,907	6,076	miles within distribution system in HFRA and prescribe mitigation as needed to achieve	1,874	3,907	6,076	HFRA Inspect 7,900 circuit miles within distribution system in HFRA and prescribe mitigation as needed to achieve	<del>100%</del> 85%	1.74%	1.69%	1.66%	23,700	P1 within 24 hours [3] P2 and all other prescriptions within 30- 180 days	9.2; p. 332.
9.2 Vegetation Management Inspections	Inspections for Vegetation Clearance from Transmission Lines (VM-8)	VM-8	Circuit Miles Inspected	239	1,963	3,084	Inspect 3,800 circuit miles within transmission system in HFRA and prescribe mitigation as needed to achieve clearance	239	1,963	3,084	clearance Inspect 3,800 circuit miles within transmission system in HFRA and prescribe mitigation as needed to achieve clearance	239	1,963	3,084	clearance Inspect 3,800 circuit miles within transmission system in HFRA and prescribe mitigation as needed to achieve clearance	<del>100%</del> 86%	0.37%	0.38%	0.38%	11,400	P1 within 24 hours  P2 and all other prescriptions within 30-180 days	9.2; p. 332.
9.4 Pole Clearing	Additional Structure Brushing (VM-2.1)	VM-2	Inspected Structures	4,500	36,000	72,000	Inspect 83,000 structures and perform clearance where necessary [4]  SCE will strive to inspect 172,000 structures and perform clearance where necessary	4,500	36,000	72,000	Inspect 83,000 structures and perform clearance where necessary [4]  SCE will strive to inspect 172,000 structures and perform clearance where necessary	4,500	36,000	72,000	Inspect 83,000 structures and perform clearance where necessary [4]  SCE will strive to inspect 172,000 structures and perform clearance where necessary	46%	4.04%	4.01%	3.96%	249,000 (compliance) / 516,000 (strive)	Within 12 months	9.4; p. 344.
9.4 Pole Clearing	Compliance Structure Brushing (VM-2.2)	N/A	Inspected Structures	28,500	57,000	80,750	[4] Inspect 91,500 structures and perform clearance where necessary and feasible [5]	28,500	57,000	80,750	[4] Inspect 91,500 structures and perform clearance where necessary and feasible [5]	28,500	57,000	80,750	[4] Inspect 91,500 structures and perform clearance where necessary and feasible [5]	22%	6.30%	6.27%	6.27%	285,000	Within 12 months	9.4; p. <u>344.</u>

<sup>[1]</sup> Subject to constraints such as environmental holds, agency restrictions, customer approval, access or weather-related impacts (refer to Section 9.12.1).

<sup>[2]</sup> When remediations are not system auto-assigned to tree trimmers, VM targets to assign work within 5 days of condition identification.

<sup>[3]</sup> In HFRA only, P1 conditions for vegetation within 18" and no prior evidence of contact shall be remediated within 72 hours.

<sup>[4]</sup> Attempts where no structures are found, or no clearance is required, are counted towards the target. [5] Attempts where no structures are found, or no clearance is required, are counted towards the target based on interpretation of PRC 4295. Structures counted towards VM-2.2 are not counted toward VM-2.1 target.

Initiative	Quantitative or Qualitative Target	Activity (tracking ID #)	Previous Tracking ID, if applicable	Target Unit	2026 End of year total/Completion Date [1]	% risk reduction for 2026	2027 Total/Status [1]	% risk reduction for 2027	2028 Total/Status [1]	% risk reduction for 2028	Three- year total	Section; Page number
10.2 Environmental Monitoring Systems	Quantitative	Fuel Sampling (SA- 17)	N/A	Fuel Samples	Take 332 fuel samples per year. Strive to take 416 fuel samples per year.	N/A [2]	Take 332 fuel samples per year. Strive to take 416 fuel samples per year.	N/A [2]	Take 332 fuel samples per year. Strive to take 416 fuel samples per year.	N/A [2]	996 (compliance) / 1248 (strive)	10.2; p. 379
10.2 Environmental Monitoring Systems	Qualitative	Weather Station Coverage (SA-19)	N/A	N/A	Continue to maintain a map of weather station point coverage for future evaluation of potential weather station installs, if there is an identified operational need.	N/A	Continue to maintain a map of weather station point coverage for future evaluation of potential weather station installs, if there is an identified operational need.	N/A	Continue to maintain a map of weather station point coverage for future evaluation of potential weather station installs, if there is an identified operational need.	N/A	N/A	10.2; p. 379
10.3 Grid Monitoring Systems	Quantitative	Early Fault Detection (EFD) (SA-11)	SA-11	EFD installed	Install EFD at 200 locations, subject to resource/external constraints and other execution risks	<del>N/A</del> 0.11%	Install EFD at 200 locations, subject to resource/external constraints and other execution risks	<del>N/A</del> 0.13%	Install EFD at 200 locations, subject to resource/external constraints and other execution risks  Strive to install EFD at up to 900 locations over the three- year period	<del>N/A</del> 0.19%	600 (compliance) / 900 (strive)	10.3; p. 388
10.3 Grid Monitoring Systems	Qualitative	Distribution Open Phase Detection (DOPD) (SA-14)	N/A	N/A	Evaluate DOPD integration with field area network (FAN) technology	N/A	Develop future DOPD program strategy and implementation plan based on 2026 results	N/A	Develop future DOPD program strategy and implementation plan based on 2026 and 2027 results	N/A	N/A	10.3; p. 388
10.4 Ignition Detection Systems	Quantitative	HD Camera Artificial Intelligence (AI) Uptime (SA-15)	N/A	Al uptime validation checks	Validate AI uptime on available cameras four times a year	N/A [2]	Validate AI uptime on available cameras four times a year	N/A [2]	Validate AI uptime on available cameras four times a year	N/A [2]	Validate AI uptime on available cameras 12 times	10.4; p. 402
10.4 Ignition Detection Systems	Qualitative	HD Camera Improvement (SA- 18)	N/A	N/A	Develop long-term strategy to manage and identify opportunities to improve SCE's camera system	N/A	Implement long-term strategy for camera management and improvement	N/A	Implement long term- strategy for camera management and improvement	N/A	N/A	10.4; p. 402
10.5 Weather Forecasting	Quantitative	Weather Model Verification (SA-16)	N/A	Weather model verifications	Perform four weather model verifications a year	N/A [2]	Perform four weather model verifications a year	N/A [2]	Perform four weather model verifications a year	N/A [2]	Perform 12 weather model verifications	10.5; p. 409
10.5 Weather Forecasting	Qualitative	Weather and Fuels Modeling (SA-3)	SA-3	N/A	Continually evaluate and implement new weather forecast solutions, such as AI, where value may be added	N/A	Continually evaluate and implement new weather forecast solutions, such as AI, where value may be added	N/A	Continually evaluate and implement new weather forecast solutions, such as AI, where value may be added	N/A	N/A	10.5; p. 409

### 10.2.1.1 Weather Station Coverage (SA-19)

Weather stations are used to provide valuable situational awareness for PSPS decision-making and help improve weather models. SCE's weather stations provide data points such as temperature measurements, wind speeds, wind direction, dew point, and relative humidity. Weather conditions can differ significantly at any given time within the HFRA of SCE's service territory, due to the territory's large size, numerous climate zones and diverse topography. For example, Southern California's mountains have rapid elevation changes and differing canyon orientations, which create localized weather zones.

SCE monitors and analyzes weather data at the circuits and circuit segments, where available, across HFRA to inform operational decisions such as deploying PSPS protocols during elevated weather conditions. Granular, circuit-level or circuit-segment-level weather data is used by incident management team (IMT) personnel to inform initiation of PSPS events, customer notifications, de-energization decisions for SCE circuits, reenergizations, as well as limiting the impact of PSPS to the extent possible to particular segments of a circuit instead of a full circuit, where applicable, dependent on circuit configurations.

To improve existing weather models and access more granular, real-time information during wildfire risk conditions, SCE has increased the number of weather stations across distribution, sub-transmission and bulk-transmission circuits in its HFRA since 2018. A higher density of weather stations allows SCE to validate real-time conditions in the field during elevated fire conditions. Adding weather stations to transmission circuits helped improve the visibility of the service territory for real-time weather monitoring, as well as improve weather forecasts along transmission circuits due to the development of machine learning forecasts using historical weather station observations for model training. Having more stations also expands and increases the granularity of data to enable improved weather forecasting capabilities at the circuit and circuit-section level.

As of January 2025, SCE has over 1,780 weather stations deployed across its HFRA, including over 160 stations on the sub-transmission and bulk-transmission system. SCE used industry equipment standards and placement techniques to capture the wind profiles of its circuits, while at times siting more than one station per circuit to account for variations in terrain, as well as circuit segmentation to minimize customer impacts.

SCE has over approximately 1,450 weather stations capable of relaying 30-second, real time reads. Cellular communications are necessary for increased data collection intervals, thus satellite-only stations in remote areas (approximately 340 currently) are unable to relay data at 30-second intervals. SCE enabled 30-second reads periodically during the 2024 PSPS events in order to evaluate potential operational benefits to PSPS in real-time. SCE will continue to evaluate the operational benefits associated with 30-second reads. If operational benefits are evident, SCE will further integrate metrics associated with 30-second observations into PSPS monitoring applications.

Generalized location of the system / locations measured by the system (e.g., HTFD, entire service territory)

certainty values are well documented in a CPUC sponsored report that SCE has referenced in prior WMP filings. <sup>218</sup>

In addition to our response provided in the 2025 WMP Update, SCE believes this is the most pragmatic approach for prioritizing grid hardening activities, given that these values are: 1) based on *actual observed* and relevant fire weather conditions in SCE's service territory; 2) expected to occur again based on the long expected useful life of grid hardening activities; and 3) expected to be a conservative representation of wildfire risk given the likely potential increase in both the frequency of FWDs and consequences due to future climate change, based on State of California data (see Section 3.7 and Section 5.3.2 for additional information). SCE notes that the Phase III Decision explicitly requires that "[t]he IOUs should seek to avoid, if possible, any long-term asset investment strategy that would be at risk in the future because of climate change impacts." <sup>219</sup>

SCE will provide any updates to its wildfire risk modeling approach in its 2026 RAMP application, as required. See Sections 3.7, 5.2, and 5.3.2 for information regarding SCE's quasi-probabilistic approach, including its FWD selection methodology.

<sup>218</sup> See depiction of how uncertainty increases over time for wildfire simulation, California Public Utilities Commission 2019 PSPS Event –Wildfire Analysis Report – SCE, specifically pp. 9-10 https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/safety-and-enforcement-division/documents/technosylva-report-on-sce-psps-events-2019.pdf 219 D.24-05-064. Ordering Paragraph 3. (d)