

**Connor J. Flanigan** Managing Director, State Regulatory Operations

February 1, 2024

Docket# 2023-SCs

OFFICE OF ENERGY INFRASTRUCTURE SAFETY OF THE CALIFORNIA NATURAL RESOURCES AGENCY

**SUBJECT:** Southern California Edison Company's Quarterly Notification Pursuant to Public Utilities Code Section 8389(e)(7) Regarding the Implementation of its Approved Wildfire Mitigation Plan and its Safety Culture Assessment Recommendations

Southern California Edison Company (SCE) hereby submits this Notification, which includes discussion of the implementation of our 2023-2025 Wildfire Mitigation Plan (WMP),<sup>1</sup> recommendations of the most recent safety culture assessment, a statement of the recommendations of its board of directors' safety committee<sup>2</sup> (Committee) during meetings that occurred during the fourth quarter of 2023, and a summary of the implementation of Committee recommendations in the fourth quarter of 2023 from previous meetings.

#### <u>PURPOSE</u>

The purpose of this Notification is to comply with the provisions of Public Utilities Code (PUC) Section 8389(e)(7), established by California Assembly Bill (AB) 1054 as amended by AB 148.

#### BACKGROUND

AB 1054 was signed into law by Governor Newsom on July 12, 2019 and AB 148 was signed into law on July 22, 2021. Section 8389(e)(7), which was added to the PUC by AB 1054 as amended by AB 148, reads:

The Director of the Office of Energy Infrastructure Safety shall issue a safety certification to an electrical corporation if the electrical corporation provides documentation of the following: ...The electrical corporation is implementing its approved wildfire mitigation plan. The electrical corporation shall file a notification of implementation of its wildfire mitigation plan with the office and an information-only submittal with the commission on a quarterly basis that details the implementation of both its approved wildfire mitigation plan and recommendations of the most recent safety culture assessments by

<sup>&</sup>lt;sup>1</sup> Public Utilities Code Section 8389 requires a quarterly notification detailing the implementation of an electric corporation's approved WMP. SCE is reporting on the implementation of its 2023-2025 WMP that was submitted to the Office of Energy Infrastructure Safety (Energy Safety) on March 27, 2023.

<sup>&</sup>lt;sup>2</sup> SCE's board of directors' safety committee is known as the Safety and Operations Committee of the Board of Directors and referred to herein as the "Committee."

the commission and office, and a statement of the recommendations of the board of directors safety committee meetings that occurred during the quarter. The notification and information-only submittal shall also summarize the implementation of the safety committee recommendations from the electrical corporation's previous notification and submission.<sup>3</sup> If the office has reason to doubt the veracity of the statements contained in the notification or information-only submittal, it shall perform an audit of the issue of concern. The electrical corporation shall provide a copy of the information-only submittal to the office.<sup>4</sup>

SCE provides the required information below:

#### (1) Quarterly Information-Only Submittal to the CPUC

SCE is simultaneously submitting this quarterly notification to the California Public Utilities Commission as an information-only submittal via email to Executive Director Rachel Peterson at <u>rachel.peterson@cpuc.ca.gov</u>; Forest Kaser at <u>forest.kaser@cpuc.ca.gov</u>; Simon Baker at <u>simon.baker@cpuc.ca.gov</u>; Daniel Bout at <u>danjel.bout@cpuc.ca.gov</u>; Eric Wu at <u>eric.wu@cpuc.ca.gov</u> and Leslie Palmer at <u>leslie.palmer@cpuc.ca.gov</u>.

#### (2) Implementation of Wildfire Mitigation Plan

On March 27, 2023, SCE submitted its 2023-2025 WMP. The WMP included discussion of 2023 programs and activities, as well as successes and lessons learned from 2022. For 2023, SCE tracked 40 specific wildfire-related activities, including grid hardening, enhanced inspection and repair programs, continuation of robust vegetation management, increased situational awareness and response, and augmented activities for Public Safety Power Shutoff (PSPS) resilience and community engagement, particularly for underrepresented groups and access and functional needs customers.

In Attachment A (SCE's 2023-2025 Wildfire Mitigation Plan Progress Update – Q4 2023)<sup>5</sup>, SCE presents detailed information about the implementation status of each of these wildfire-related mitigation activities. As referenced in Attachment A, SCE met year-end targets for thirty-seven of the program activities. Additional work remains to complete the 2023 targets for the following three activities:

<sup>&</sup>lt;sup>3</sup> SCE is simultaneously submitting this quarterly notification to the California Public Utilities Commission as an information-only submittal via email to Rachel Peterson, Forest Kaser, Simon Baker, Danjel Bout, Eric Wu, and Leslie Palmer.

<sup>&</sup>lt;sup>4</sup> Pub. Util. Code § 8389(e)(7).

<sup>&</sup>lt;sup>5</sup> As of the date of this filing, SCE anticipates that the reported value for SH-1 is preliminary and will need to be adjusted downward based on an ongoing internal audit. The magnitude of potential changes is unknown at this time. SCE intends to update the reported value at the conclusion of the internal review and any changes in reported values will be provided in the 2023 Annual Report on Compliance.

- Maintenance and Inspection Tools [IN-8]: The migration of the distribution ground inspection application to a single digital platform was delayed. The delay was due to vendor resource constraints and longer than anticipated time to re-assess workflows and requirements to optimize processes and improve data quality. SCE expects to complete the detailed design to migrate the distribution ground inspection application to a single digital platform by the end of Q1 2024.
- Targeted Undergrounding [SH-2]: SCE could not complete construction of approximately 3 miles of undergrounding on one circuit due to challenges in securing certain easements agreements. SCE is resolving the outstanding issues and expects to finish the remaining miles of targeted undergrounding by the end of Q2 2024.
- Rapid Earth Fault Current Limiter (REFCL) ground fault neutralizer activity [SH 17]: SCE completed REFCL installation in one substation. Installation in the second substation was delayed due to unforeseen construction delays associated with emergent transformer replacement at the substation and supply chain challenges. Construction of the ground fault neutralizer at the second substation is expected to be complete by the end of Q2 2024.

With additional mitigations in place, these delays have not materially increased ignition risks. SCE is incorporating the lessons learned in implementing future WMP activities.

#### (3) Implementation of Most Recent Safety Culture Assessment

Energy Safety issued the 2022 Safety Culture Assessment (SCA) Report for SCE on May 8, 2023. The SCA was conducted by the National Safety Council, Energy Safety's third-party administrator. As discussed in more detail below, SCE has been addressing the four findings and recommendations of its most recent SCA report.<sup>6</sup> Below SCE describes how it has implemented actions to address these findings and recommendations in Q4.

- 1. Continue to build SCE's capacity as a learning organization (Recommendation 3.1): SCE should build its capacity as a learning organization, taking a proactive approach to incorporating feedback to improve organizational processes, by:
  - Focusing on improving safety-enabling systems such as incident investigation and root cause analysis.
  - Increasing the quality of incident and near-miss reports submitted by frontline workers.

<sup>&</sup>lt;sup>6</sup> Energy Safety initiated its 2022 Safety Culture Assessment (SCA) process for electrical corporations on July 22, 2022. SCE partnered with Energy Safety and National Safety Council (NSC), its third-party administrator, to complete the management self-assessment and workforce safety culture survey. SCE received its 2022 SCA report on May 8, 2023 and submitted a Letter Acceptance of 2022 Safety Culture Assessment Report on June 21, 2023.

- Increasing opportunities for frontline workers and contractors to discuss lessons learned from safety events.
- Developing an action plan to ensure that frontline leaders are implementing training concepts such as coaching conversations.

Addressing this recommendation, in Q4 SCE:

- a. Neared completion of the implementation of the Environmental Health and Safety Information Management System enterprise-wide. This system is designed for reporting, tracking, and managing work-related injuries and incidents on a single platform. As of the end of this quarterly period, Web-based training was on track to begin in January.
- b. Continued to share lessons learned via SCE's Weekly Incident Report, which provides more opportunities for frontline workers to discuss lessons learned from completed safety incidents evaluations, initial learnings from pending evaluations and tips for prevention. SCE launched a consolidated contractor and SCE employee report that expands the range of learnings provided to our workers.
- c. Reviewed bids for Phase Two of the Environmental, Health, Safety, and Quality Management System, which includes the Incident Management System and Corrective Action Preventative Action Program. This safety enabling system will improve SCE's organizational learning capacity by facilitating better incident and root cause data quality, trending and integration.
- d. Completed Human and Operational Performance (HOP) training for the Grid Operations organization in Q4 2023, which will help frontline leaders implement training concepts such as coaching conversations grounded in HOP principles.
  - 2. Optimize safety communications between leadership and frontline workers (Recommendation 3.2): SCE should optimize its safety communications between leadership and frontline workers by considering deploying an incident management team liaison to the field during incidents and implementing regular crossdepartmental topic-specific listening sessions to develop better understanding of frontline issues and recognize workers' accomplishments.

Addressing this recommendation, SCE continues to improve communications between frontline workers and our PSPS operations. In Q4 SCE:

a. Continued to advance safety culture through improved understanding by holding several in-person "Roundtable" sessions designed to share PSPS and safety-related information, as well as solicit concerns and feedback.

Our most recent visits include Antelope Valley, Covina, San Dimas and the North Coast Grid. The meetings were well attended and received positive feedback.

- b. Continued to build quick reference guides to provide a step-by-step process for roles in areas relevant to PSPS events, including activation, de-energization, and reenergization.
  - 3. Mitigate risk exposure posed by interactions with the public (Recommendation 3.3): SCE should continue to recognize and take action to mitigate the risk exposure posed by interactions with the public by:
    - Focusing on encouraging frontline workers to report these incidents.
    - Continuing to track incidents and further developing its strategy for managing this risk exposure.
    - Improving bilingual support resources for Spanish-speaking vegetation management crews to assist with de-escalation.

Addressing this recommendation in Q4, SCE:

- a. Continued exploring further enhancements to streamline and reduce customer interactions before conducting the work, such as the UASidekick airspace awareness tool, Low Altitude Authorization and Notification Capability (LAANC)<sup>7</sup>.
- b. Continued to provide a property access safety video in English and Spanish for SCE employees and contractors in efforts to improve bilingual resources for Spanish speaking crews. Also provided 92 presentations on enhancing safety in 2023.
- c. As part of the continuous improvement effort, now bundling more assets per work order from 20 assets to between 60-80 assets to decrease the likelihood of returning to the same location multiple times per year for HFRA inspections work.

SCE's efforts appear to be having positive effects as there was a 13% reduction in reported assault/threat cases in Q4 compared to Q3 and a 35% reduction in reported assault/threat cases in 2023 compared to 2022 (74 as compared to 113).

4. Improve training for frontline workers on new technologies related to wildfire mitigation (Recommendation 3.4): SCE should improve its training for frontline workers on new technologies related to wildfire mitigation, in particular rapid earth fault current limiter (REFCL) devices.

<sup>&</sup>lt;sup>7</sup> LAANC allows drone pilots to request airspace clearing in restricted flight areas, as well as provides customer contact information so crews can make contact with customers before work execution. For Red List customers, crews are aware of the location from the GIS Map Layer provided so they may request SCE Corporate Security assistance.

Addressing this recommendation, in Q4 SCE:

 Delivered training to frontline workers for Rapid Earth Fault Current Limiters (REFCL) with enhanced training materials that provide content tailored to the specific audience. REFCL detects and reduces ground fault energy before an ignition can occur. SCE completed 100% of initial training sessions held at all impacted SCE locations for impacted classifications. Make-up classes for absent employees to be scheduled early 2024.

#### (4) <u>Recommendations of the Safety and Operations Committee</u>

The Committee had two meetings during the fourth quarter of 2023, on October 25 and December 13. During these meetings, the Committee focused on wildfire and safety issues in the following categories: Wildfire Safety, Worker Safety, and Public Safety, among other topics.

Each of these areas are addressed below. In addition to regular Committee meetings each quarter, the Committee Chair meets regularly with SCE management to discuss wildfire and worker safety issues, and visits with teams in the field.

#### a. Wildfire Safety

At its regular October meeting, the Committee received a report on SCE's progress on WMP activities. The report also covered the planned 2024 WMP submission for the Committee's review, including the components that had revised targets and the factors leading to the revisions. The Committee and management discussed WMP activities and updated vegetation management risk modeling resulting in changes to acreage. The Committee also received an update on a project to reconductor a 220kV transmission line that had previous failures and plans to test and validate the new conductor.

At its regular December meeting, the Committee received a report on WMP implementation progress, which noted that although fire activity has been low, recent high wind events have resulted in PSPS events. The Committee and management discussed operational successes in minimizing customer de-energization and challenges in notifications during late 2023 PSPS events, factors contributing to the challenges, and plans to address them. The Committee and management also discussed customer data management and completion of remaining WMP targets.

#### b. Worker Safety

At its regular October meeting, the Committee received an overview of safety performance, where management noted that the safety culture assessment findings would be discussed in more depth at the Board meeting on the following day and that the overall results are aligned with the safety work plan and transition to leading indicator metrics.

The Committee and management discussed the need to scale and accelerate the progress on safety performance improvement.

The Committee also received an update on the safety work plan, which covered progress on the volume and effectiveness of safety observations, using High Energy Control Assessments ("HECA") to measure performance by observing work conditions and assessing adequate protections and mitigations against life-threatening hazards. The report also covered the HECA scoring mechanism and the expected benefits from benchmarking and calibration across the utility sector, including the potential for pursuing engineering solutions to further improve safety performance. The Committee and management discussed adoption by front line leadership, accountability and expectations on timing for implementation, and utilization of performance development and management tools, training, and coordination across the utility sector.

At its regular December meeting, the Committee received a review of the planned implementation of the Safety Management System ("SMS") to systematically identify risks, controls and mitigants to improve safety performance. The Committee and management discussed the benefits of SMS regarding risk identification, standardization and consistency in work practices, and disciplined operations. The Committee and management also discussed the SMS assessment results and opportunities for SMS development and implementation to improve safety performance, recognition of positive safety outcomes, and timing of SMS implementation.

The Committee also received an overview of the 2023 safety work plan progress and results, which covered the areas of focus in the plan, including leadership and accountability. The Committee and management discussed benchmarking with other utilities, metrics, employee commitment to safety and district-level performance.

The Committee received information on two safety assessments that were completed in 2023, the safety culture assessment and the SMS assessment. The Committee and management discussed the SMS assessment findings, gaps identified and plans to address them. The report also reviewed focus areas for addressing worker safety in 2024. The Committee and management discussed safety risk management, integrated plans for SMS maturity and workstreams over the next two years in the four focus areas. The Committee and management further discussed measuring leader time in the field and correlation to safety data points, safety observations, encouraging teams to collaborate and timing of implementing planned changes. The report also covered the incorporation of safety plans into employee goals and documentation of feedback. The Committee and management discussed the resources needed to implement the plans; additional focus areas for 2024 such as induction, underground flash, vehicle rollover and fall from heights; the creation, implementation and monitoring of compliance with standards and practices and employee and contractor involvement in the process. Finally, the Committee and management discussed change management processes, accountability, changes in the safety organization, roles and responsibilities and leveraging external resources.

#### c. Public Safety

At its regular December meeting, The Committee received a report on measures to address high priority areas identified for public safety. The report included information on progress in 2023 in the focus areas and performance against 2023 goals.

#### d. Committee Recommendations

In addition to discussing the wildfire, worker, and public safety topics during its fourth quarter meetings, the Committee made the following recommendations:

- 1. Recommended that management continue to report on safety performance utilizing additional metrics including HECA and progress on implementing SMS.
- 2. Recommended that management provide additional details on the implementation of its 2024 worker safety roadmap.
- 3. Recommended that management share district-level data related to worker safety performance.

#### e. Completed Management Responses to Committee Recommendations

In response to the Committee's recommendations in prior meetings, management provided the following responses during the Q4 meeting, the details of which are described above or were pending from prior meetings:

• Recommendation (Q3 2023): The Committee recommended that management provide additional analysis of safety observation data and correlating safety performance improvements.

<u>Management response</u>: The Committee received a worker safety report at its October 2023 meeting that included analysis of safety observation data.

• Recommendation (Q3 2023): The Committee recommended that management provide a review of contractor management areas of focus for improvement.

<u>Management response</u>: The Committee received information on the improvement achieved in the contractor management areas of focus at its December 2023 meeting in a report on operational excellence.

 Recommendation (Q4 2023): The Committee recommended that management continue to report on safety performance utilizing additional metrics including HECA and progress on implementing SMS. <u>Management response</u>: The Committee received a worker safety report at its December 2023 meeting that contained information on SMS implementation plans and covered high-energy injuries in 2023 and related indications from completed HECAs.

#### f. Pending Management Responses to Committee Recommendations

The following recommendations were made by the Committee in past meetings. Management is actively working to address these and will provide an update at future meetings.

- Recommendation (Q3 2023): The Committee recommended that management share Association of Edison Illuminating Companies (AEIC) safety work practices benchmarking as it becomes available at a future meeting.
- Recommendation (Q3 2023): The Committee recommended that management provide an update on the third-party review of all technical training programs for lineworkers as the assessment is completed at a future meeting.

The Committee has one regular Q1 2024 meeting scheduled for February 21, 2024, which will be summarized in the next quarterly notification letter. Additional meetings will be scheduled as appropriate.

#### **CONCLUSION**

For questions, please contact Jennifer Kline at (626) 484-0304 or by electronic mail at jennifer.kline@sce.com.

#### Southern California Edison Company

<u>/s/ Connor J. Flanigan</u> Connor J. Flanigan

CC: Wildfire and Safety Performance Section, <u>SafetyPolicyDivision@cpuc.ca.gov</u> Eric Wu, Ph.D., P.E., Program and Project Supervisor, <u>Eric.Wu@cpuc.ca.gov</u>

CJF:jk:cm Enclosures

# SCE's 2023-2025 Wildfire Mitigation Plan (WMP) Progress Update – Q4 2023

(All data is as of December 31, 2023)<sup>1</sup>

<sup>1</sup> Source: All data is as of December 31, 2023 (+/- 5 business days). Reported numbers are subject to revision upon data validation.



Energy for What's Ahead<sup>™</sup>

### WMP Activities Summary<sup>2</sup>



n-Track Behind Plan, Likely to Meet Year-end Target Behind Plan, At-Risk of Not Meeting Year-end Target

Vegetati	on Management & Ir	spections	Grid Desi	gn, Operations, & Mai	ntenance
VM-1 Inspect 412 grids/circuits and prescribe mitigation for hazardous trees with strike potential	VM-2 Inspect and clear (where clearance is needed) 63,700 structures	VM-3 Perform vegetation treatment and maintenance to 50 sites	IN-1.1 (Distr. Ground and Aerial)	IN-1.2 (Trans. Ground and Aerial)	IN-3 Inspect 5,300 distribution overhead circuit miles in HFRA
<b>VM-4</b> Inspect 509 grids/circuits and prescribe mitigation for dead	<b>VM-6 (Arbora)</b> Enable supplemental Vegetation Management tree	<b>VM-7</b> Inspect 770 grids within	Inspect 187,000 structures in HFRA	Inspect 28,000 structures in HFRA	IN-4 Inspect 1,000 transmission overhead circuit miles in HFRA
and dying trees with strike potential	maintenance program capabilities in Arbora VM-9	distribution system	IN-5 Inspect 170 generation related assets in HFRA	IN-8 (Inspection and Maintenance Tools) Distribution Ground Inspection Application	<b>IN-9.a</b> Inspect 50 spans with Line Vue
Inspect 416 circuits within transmission system	Inspect at least 1,020 HFRA circuit miles	Inspect at least 1,820 HFRA circuit miles	<b>SH-1<sup>3</sup></b> Install 1,100 circuit miles of covered conductor in SCE's HFRA	SH-2 Convert 11 circuit miles of overhead to underground in SCE's HFRA	<b>IN-9.b</b> Inspect 50 splices with X-Ray
Situational Awar & Forecastin	g	Print Dep-4	SH-4 Install or replace fusing at 500 fuse locations that serve HFRA circuitry	<b>SH-5</b> Install 6 RAR/RCS sectionalizing devices	<b>SH-6</b> Replace/upgrade 75 CB relay units with fast curve settings in SCE's HFRA
stations in SCE's stat	o SUU weather men ion locations th machine ng capabilities	least four etings       Conduct at least five customer studies         rgency Preparedness	<b>SH-8</b> Install TOPD at 5 locations that serve HFRA circuitry with both alarm/trip functionality	<b>SH-10</b> Remediate 400 tree attachments in SCE's HFRA	<b>SH-14</b> Remediate 400 spans in SCE's HFRA
SA-8 Complete analytics report summariz of historical consequence data for spread modeling	ing assessment PS improved fire 85% of delivered	PS-2 batteries d within 30 dar days PSPS-3 85% of rebates processed within 30 business days	<b>SH-15</b> Install 9 vertical switches in SCE's HFRA	SH-16 Retrofit vibration dampers on 300 structures	<b>SH-17</b> Complete construction of GFN at two substations (Acton and Phelan)
Install 10 HD Detect	all Early Fault PSPS resp ion (EFD) at 50 are fully of	P-2 DEP-5 Onse teams jualified/re- v7/1 annually QRF program	SH-18 Complete grounding conversion at one location, subject to land availability	(Ezy) Enable LiDAR data m (WiSDM) Enable semi-automate	5-1 anagement by end of year ed data aggregation and external lata sharing

<sup>2</sup> As of the date of this filing, SCE anticipates that the reported value for SH-1 is preliminary and will need to be adjusted downward based on an ongoing internal audit. The magnitude of potential changes is unknown at this time. SCE intends to update the reported value at the conclusion of the internal review and any changes in reported values will be provided in the 2023 Annual Report on Compliance.

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2

Inactive Under Review Complete On-Track

Behind Plan, Likely to Meet Year-end Target Behind Plan, At-Risk of Not Meeting Year-end Target

### Situational Awareness Activities

Weather Stations 134% Installed	<ul> <li>Weather Stations (SA-1)</li> <li>Section 8.3.1.2 Page 449</li> <li>Program Target: Install 85 weather stations in SCE's HFRA. SCE will strive to install up to 95 weather stations in SCE's HFRA, subject to resource and execution constraints.</li> <li>Status Update: SCE met target in Q4. Program exceeded its target and a total of 114 weather stations were installed.</li> </ul>	High Definition (HD) Cameras 100% Installed	High Definition (HD) Cameras (SA-10) Section 8.3.1.2 Page 449 Program Target: Install 10 HD Cameras. SCE will strive to install up to 20 HD Cameras, subject to resource and execution constraints. Status Update: SCE met target in Q3 to install 10 HD cameras.
Weather and Fuels Modeling <b>124%</b> Installed	Weather and Fuels Modeling (SA-3) Section 8.3.1.2 Page 449 Program Target: Equip 500 weather station locations with machine learning capabilities. SCE will strive to equip up to 600 weather station locations with machine learning capabilities, subject to resource and execution constraints.	Early Fault Detection (EFD) 154% Installed	<ul> <li>Early Fault Detection (EFD) (SA-11)</li> <li>Section 8.3.1.2 Pages 449-450</li> <li>Program Target: Install Early Fault Detection (EFD) at 50 locations.</li> <li>SCE will strive to install EFD at up to 100 locations, subject to resource constraints and other execution risks.</li> <li>Status Update: SCE met target in Q2. Program exceeded its target</li> </ul>
mstaned	<b>Status Update:</b> SCE met target in Q2. Program exceeded its target and a total of 621 weather station locations were equipped with new	mstalled	and a total of 77 locations were installed with EFDs.

#### Fire Science (SA-8)

machine learning capabilities.

Fu

**Fire Spread** 

Modeling

Section 8.3.1.2 Page 449

Program Target: Complete analytics report summarizing assessment of historical consequence data for improved fire spread modeling.

Status Update: SCE met target in Q4 to complete analytics report summarizing assessment of historical consequence data for improved fire spread modeling.

## WMP Activities Summary<sup>3</sup>



On-Track

Behind Plan, Likely to Meet Year-end Target

#### Behind Plan, At-Risk of Not Meeting Year-end Target

### Grid Design and System Hardening

Covered

Conductor

108% Installed

#### Covered Conductor (SH-1)<sup>3</sup>

Section 8.1.1.2 Page 238

Program Target: Install 1,100 circuit miles of covered conductor in SCE's HFRA. SCE will strive to install up to as many as 1,200 circuit miles of covered conductor in SCE's HFRA, subject to resource constraints and other execution risks.

Status Update: SCE met target in Q4. Program exceeded its target and a total of 1,217.36 circuit miles of covered conductor were installed.

#### **Remote Controlled** Automatic Reclosers

**Settings Update** 117% Installed

#### **Remote Controlled Automatic Reclosers Settings** Update (SH-5)

Section 8.1.1.2 Page 239

Program Target: SCE will install 6 RAR/RCS sectionalizing devices subject to 2022 PSPS analysis and subject to change. SCE will strive to install up to 17 RAR/RCS sectionalizing devices subject to 2022 PSPS analysis, resource constraints and other execution risks.

**Status Update:** SCE met target in Q4. Program exceeded its target and a total of 7 RAR/RCS sectionalizing devices were installed.

Undergrounding	<u>Undergrounding Overhead Conductor (SH-2)</u>		
Overhead	Section 8.1.1.2 Page 238		
Conductor	<b>Program Target:</b> Convert 11 circuit miles of overhead to underground in SCE's HFRA.		
78% Installed	<b>Status Update</b> : SCE missed the 2023 target to install 11 miles of targeted undergrounding by 2.46 circuit miles due to delays in obtaining Metropolitan Water District's agreement on amended		
	easement language. A total of 8.54 circuit miles installed and remaining miles expected to be complete by end of Q2 2024.		
	Branch Line Protection Strategy (SH-4)		
Branch Line	Section 8.1.1.2 Page 238		
Protection	<b>Dreaman Target:</b> Install or replace fusing at E00 fuse locations t		

Protection Strategy

#### 113% Installed

Program Target: Install or replace fusing at 500 fuse locations that serve HFRA circuitry. SCE will strive to install or replace fusing at up to 570 locations that serve HFRA circuitry, subject to resource constraints and other execution risks.

Status Update: SCE met target in Q3. Program exceeded its target and a total of 563 fuse locations were installed/replaced.

**Circuit Breaker** Relay Fast Curve 128% Installed

Transmission

**Open Phase** 

Detection

#### **Circuit Breaker Relay Fast Curve (SH-6)**

Section 8.1.1.2 Page 239

**Program Target:** Replace/upgrade 75 CB relay units with fast curve settings in SCE's HFRA. SCE will strive to replace/upgrade up to 88 relay units with fast curve settings in SCE's HFRA, subject to resource constraints and other execution risks.

**Status Update:** SCE met target in Q4. Program exceeded its target and a total of 96 CB relay units were replaced/upgraded.

#### Transmission Open Phase Detection (SH-8)

Section 8.1.1.2 Page 239

**Program Target:** Install TOPD at 5 locations that serve HFRA circuitry with both alarm and trip functionality

Status Update: SCE met target in Q4. TOPD installation was complete at 5 locations, commissioning was complete on 4 of the 5 locations, and the remaining location will be commissioned in 2024 once the line returns to in-service status.

4



expected in 2024.

Behind Plan, Likely to Meet Year-end Target

Behind Plan, At-Risk of Not Meeting Year-end Target

### Grid Design and System Hardening

Tree Attachment Remediation	<b>Tree Attachment Remediation (SH-10)</b> Section 8.1.1.2 Page 240 <b>Program Target:</b> Remediate 400 tree attachments in SCE's HFRA. SCE will strive to complete up to 500 tree attachment remediations in SCE's HFRA, subject to resource constraints and other execution risks. <b>Status Update:</b> SCE met target in Q4. Program exceeded its target and a total of 562 tree attachments were remediated.	Vibration Damper Retrofit 132% Installed	<ul> <li>Vibration Damper Retrofit (SH-16)</li> <li>Section 8.1.1.2 Page 241</li> <li>Program Target: Retrofit vibration dampers on 300 structures where covered conductor is already installed in SCE's HFRA. SCE will strive to retrofit vibration dampers on up to 400 structures where covered conductor is already installed in SCE's HFRA, subject to resource constraints and other execution risks.</li> <li>Status Update: SCE met target in Q3. Program exceeded its target and a total of 396 vibration dampers were retrofitted.</li> </ul>
Long Span Initiative 123% Remediations	<ul> <li>Long Span Initiative (SH-14) Section 8.1.1.2 Page 240</li> <li>Program Target: Remediate 400 spans in SCE's HFRA. SCE will strive to remediate up to 500 spans in SCE's HFRA, subject to resource constraints and other execution risks.</li> <li>Status Update: SCE met target in Q3. Program exceeded its target and a total of 493 spans were remediated.</li> <li>Vertical Switches (SH-15)</li> </ul>	REFCL (Ground Fault Neutralizer)	Rapid Earth Fault Current Limiters (REFCL) (Ground Fault Neutralizer) (SH-17)Section 8.1.1.2 Page 241Program Target: SCE will complete construction of GFN at two substations (Acton and Phelan).Status Update: SCE missed 2023 target to complete construction of ground fault neutralizer (GFN) at two substations due to emergent transformer replacement and material supply challenges at one substation. Construction complete at Acton substation. Construction at Phelan substation is in progress and expected to be complete by end of Q2 2024.
Vertical Switches 100% Installed	<ul> <li>Section 8.1.1.2 Page 240</li> <li>Program Target: Install 9 vertical switches in SCE's HFRA. SCE will strive to install 11 vertical switches in SCE's HFRA, subject to resource constraints and other execution.</li> <li>Status Update: SCE met target in Q4. Program met its target to install 9 vertical switches.</li> </ul>	REFCL (Grounding Conversion)	Rapid Earth Fault Current Limiters (REFCL) (Grounding Conversion) (SH-18) Section 8.1.1.2 Page 241 Program Target: SCE will complete grounding conversion at one location, subject to land availability.Status Update: SCE met target in Q4 to complete grounding conversion at one location; by YE, construction of grounding conversion at Eagle Crest pole top was completed. Commissioning is pending analysis of overvoltage, which is suspected to be caused by transmission overbuild. Mitigation is in process and commissioning

Inactive Under Review Complete On-Track

Behind Plan, Likely to Meet Year-end Target

Behind Plan, At-Risk of Not Meeting Year-end Target

### Asset Management and Inspections

YTD Status Ground 109% Aerial 107%	Distribution HFRI Ground / Aerial Inspections and Remediations (IN-1.1) Section 8.1.1.2 Page 242Program Target: Inspect 187,000 structures in HFRA. SCE will strive to inspect up to 217,000 structures in HFRA. This target includes HFRI inspections, compliance due structures in HFRA and emergent risks identified during the fire season (e.g., AOCs).Status Update: SCE met target in Q4. Program exceeded its target and a total of 204,167 distribution ground and 200,674 distribution aerial structures were inspected.	Transmission Infrared Inspections 103% Targeted Circuits Inspected	<ul> <li>Infrared Inspection, Corona Scanning and High- Definition (HD) Imagery of Transmission facilities and equipment (IN-4)</li> <li>Section 8.1.1.2 Page 243</li> <li>Program Target: Inspect 1,000 transmission overhead circuit miles in HFRA.</li> <li>Status Update: SCE met target in Q3. Program exceeded its target and a total of 1,026.92 transmission overhead circuit miles were inspected.</li> </ul>
YTD Status Ground 103% Aerial 103%	Transmission HFRI Ground / Aerial Inspections and Remediations (IN-1.2)Section 8.1.1.2 Page 242Program Target: Inspect 28,000 structures in HFRA. SCE will strive to inspect up to 29,500 structures in HFRA. This target includes HFRI inspections, compliance due structures in HFRA and emergent risks identified during the fire season (e.g., AOCs).Status Update: SCE met target in Q4. Program exceeded its target and a total of 28,908 transmission ground and 28,824 transmission aerial structures were inspected.	Generation Inspections 132% Inspected	<ul> <li>Generation Inspections and Remediations (IN-5)</li> <li>Section 8.1.1.2 Pages 243-244</li> <li>Program Target: Inspect 170 generation related assets in HFRA. SCE will strive to inspect 200 generation related assets in HFRA subject to resource constraints and other execution risks.</li> <li>Status Update: SCE met target in Q3. Program exceeded its target and a total of 225 generation related assets were inspected.</li> </ul>
Distribution Infrared Inspections 102% Targeted Circuits Inspected	Infrared Inspection of Energized Overhead Distribution Facilities and Equipment (IN-3) Section 8.1.1.2 Page 243 Program Target: Inspect 5,300 distribution overhead circuit miles in HFRA. Status Update: SCE met target in Q4. Program exceeded its target and a total of 5,401.30 distribution overhead circuit miles were inspected.	Inspection and Maintenance Tools	<ul> <li>Inspection &amp; Maintenance Tools InspectForce (IN-8)</li> <li>Section 8.1.1.2 Page 244</li> <li>Program Target: Complete detailed design to migrate the distribution ground inspection application to the single digital platform.</li> <li>Status Update: SCE missed 2023 target due to vendor resource constraints and longer than anticipated time to re-assess workflows and requirements to optimize processes and improve data quality. By YE, the proof-of-concept was completed, development of the Architectural Vision Document (AVD) and Solution Architecture Document (SAD) are in progress and expected to be complete by end</li> </ul>

of Q1 2024.



Behind Plan, Likely to Meet Year-end Target

Behind Plan, At-Risk of Not Meeting Year-end Target

### Asset Management and Inspections

YTD Status	Transmission Conductor & Splice Assessment: Spans
	with LineVue & X-Ray (IN-9)
LineVue	Section 8.1.1.2 Pages 244-245
Ellievae	Program Target:
140%	<ul> <li>LineVue: Will inspect 50 spans with Line Vue. SCE will strive to inspect up to 75 spans with Line Vue, subject to resource constraints and other execution risks.</li> </ul>
X-Ray	<ul> <li>X-Ray: Will inspect 50 splices with X-Ray. SCE will strive to inspect up to 75 splices with X-Ray, subject to resource constraints and other execution risks.</li> </ul>
110%	Status Update:
	• <b>LineVue:</b> SCE met target in Q3. Program exceeded its target and a
	total of 66 spans were inspected with LineVue.
	<ul> <li>X-Ray: SCE met target in Q3. Program exceeded its target and a total of 55 splices were inspected with X-Ray.</li> </ul>

YTD Status	Wildfire Safety Data Mart and Data Management (WiSDM / Ezy) (DG-1) Section 8.1.1.2 Pages 245 Program Target:
Ezy	<ul> <li>Ezy: Enable LiDAR data management by end of year.</li> <li>WiSDM: Enable semi-automated data aggregation and validations of Wildfire Data for SCE's Quarterly Data Request (QDR) submission and external portal for external data sharing.</li> </ul>
	<ul> <li>Status Update:</li> <li>Ezy: SCE met target in Q4 to enable LiDAR data management; all</li> </ul>
WiSDM	<ul> <li>LiDAR data migration to Google cloud platform has been completed.</li> <li>WiSDM: SCE met target in Q2 to enable semi-automated data aggregation and validations of Wildfire Data for SCE's Quarterly Data Request (QDR) submission and external portal for external data sharing.</li> </ul>



Behind Plan, Likely to Meet Year-end Target

Behind Plan, At-Risk of Not Meeting Year-end Target

### Vegetation Management and Inspections

HTMP

#### Hazard Tree Management Program (VM-1)

104% Grids/Circuits Assessed

HFRA.

Section 8.2.1.2 Page 379 **Program Target:** Inspect 412 grids/circuits and prescribe mitigation for hazardous trees with strike potential within those grids in SCE's

Status Update: SCE met target in Q4. Program exceeded its target and a total of 427 grids/circuits were inspected.

**Dead and Dying Tree Removal** 

103% **Circuits Inspected** 

#### **Dead and Dying Tree Removal (VM-4)**

Section 8.2.1.2 Page 379 Program Target: Inspect 509 grids/circuits and prescribe mitigation for dead and dying trees with strike potential along those circuits.

Status Update: SCE met target in Q4. Program exceeded its target and a total of 526 grids/circuits were inspected.

#### Structure Brushing (VM-2)

Structure Brushing

178% Structures Cleared Section 8.2.1.2 Page 379

Program Target Inspect and clear (where clearance is needed) 63,700 structures, with the exception of structures for which there are customer access or environmental constraints. SCE will strive to inspect and clear (where clearance is needed) 135,200 structures, with the exception of structures for which there are customer access or environmental constraints. These structures are in addition to poles subject to PRC 4292.

Status Update: SCE met target in Q3. Program exceeded its target and a total of 113,570 structures were inspected.

Expanded **Clearances for Legacy Facilities** 

126%

Expanded

Clearances Performed

#### Expanded Clearances for Legacy Facilities (VM-3)

Section 8.2.1.2 Page 378 Program Target: Perform vegetation treatment and maintenance to 50 sites. SCE will strive to perform vegetation treatment and maintenance to 60 sites.

Status Update: SCE met target in Q3. Program exceeded its target and a total of 63 sites were treated and maintained

#### VM Work Management Tool (Arbora)

#### VM Work Management Tool (Arbora) (VM-6)

Section 8.2.1.2 Page 378

**Program Target** Enable supplemental Vegetation Management (emergent work) tree maintenance program capabilities in Arbora by end of year.

Status Update: SCE met target in Q4 to enable supplemental Vegetation Management (emergent work) tree maintenance program capabilities in Arbora.

Inactive Under Review Complete On-Track

Behind Plan, Likely to Meet Year-end Target Behind Plan, At-Risk of Not Meeting Year-end Target

### Vegetation Management and Inspections

Inspections: Distributionvegetation clearances aro lines, and equipment (VM Section 8.2.1.2 Page 380 Program Target: SCE will inspect system.105%	770 grids within our distribution Q4. Program exceeded its target	<ul> <li>Section 8.2.1.2 Page 380</li> <li>Program Target: SCE will inspect at least 1,020 HFRA circuit miles.</li> <li>Subject to change based on technology, program adjustments, and grid/circuits layout.</li> <li>Status Update: SCE met target in Q4. Program exceeded its target</li> </ul>
Detailed Inspections: Transmission 106% Inspections true transmission system. Settion 8.2.1.2 Page 380 Program Target: SCE will inspect transmission system. Status Update: SCE met target in and a total of 440 circuits were inst	ment (VM-8) 416 circuits within our Q4. Program exceeded its target	<ul> <li>Program Target: SCE will inspect at least 1,820 HFRA circuit miles.</li> <li>Subject to change based on program adjustments and evolution of remote sensing technologies.</li> <li>Status Update: SCE met target in Q3. Program exceeded its target and a total of 2,113.04 circuit miles were inspected.</li> </ul>

Inactive Under Review Complete

ete On-Track

Behind Plan, Likely to Meet Year-end Target Behind Plan, At-Risk of Not Meeting Year-end Target

### **Emergency Preparedness**

Customer Care Programs (Critical Care Backup Battery (CCBB) Program)

> **96%** On-Time Deployments

#### Customer Care Programs (Critical Care Backup Battery (CCBB) Program) (PSPS-2)

Section 8.4.1.2 Page 523 **Program Target:** Complete 85% of battery deliveries to eligible customers within 30 calendar days<sup>3</sup> of program enrollment, subject to customer availability, reschedule requests and battery supply constraints. Strive to complete 90% of battery deliveries to eligible customers within 45 calendar days of program enrollment, subject to customer availability, reschedule requests and battery supply constraints.

**Status Update**: SCE met target in Q4. Program exceeded its target and 96% of customers enrolled received their battery within 30 calendar days.

Customer Care Programs (Portable Power Station and Generator Rebates)

> **99%** On-Time Rebates Processed

> > Aerial

**Suppression** 

#### Customer Care Programs (Portable Power Station and Generator Rebates) (PSPS-3)

Section 8.4.1.2 Page 525

**Program Target:** Process 85% of all rebate claims within 30 business days of receipt from website vendor; excluding website related delays and subject to receiving all required customer information. Strive to process 90% of all rebate claims within 45 business days of receipt from website vendor; excluding website related delays and subject to receiving all required customer information.

**Status Update**: SCE met target in Q4. Program exceeded its target and 99% of rebate claims were processed within 30 business days.

#### SCE Emergency Responder Training

#### SCE Emergency Responder Training (DEP-2)

Section 8.4.1.2 Page 523 **Program Target:** PSPS response teams are fully qualified/requalified by 7/1 annually to maintain readiness.

**Status Update**: SCE met target in Q2 to ensure PSPS response teams are fully qualified/re-qualified by 7/1 to maintain readiness.

#### Aerial Suppression (DEP-5)

Section 8.4.1.2 Page 523 **Program Target:** Provide fire agencies with funding to support quick reaction force (QRF) program for 2023.

**Status Update**: SCE met target in Q1 with contracts issued at the end of 2022 and final payment provided to the agencies in January 2023.





Behind Plan, Likely to Meet Year-end Target

Behind Plan, At-Risk of Not Meeting Year-end Target

### Community Outreach & Engagement

#### Wildfire Safety Community Meetings

100%

Safety Meetings

#### Wildfire Safety Community Meetings (DEP-1)

Section 8.5.1.0 Page 579 Program Target: SCE will host at least four wildfire community safety meetings by region in targeted HFRA communities based on the impact of 2022 PSPS events and ongoing wildfire mitigation activities.

Status Update: SCE met target in Q2 by hosting four wildfire community safety meetings by region in targeted HFRA communities.

#### Customer **Research and** Education

100% **PSPS-related** customer studies

#### **Customer Research and Education (DEP-4)**

Section 8.5.1.0 Page 579 **Program Target:** SCE plans to conduct at least five PSPS-related customer studies in 2023.

Status Update: SCE met target in Q4 by completing 5 PSPS-related customer studies in 2023.

### WMP Activity Narratives

Missed Target Narrative – IN-8 Inspection and Maintenance Tools

#### **Activity Target**

• Develop the detailed design to migrate the distribution ground inspection application to the single digital platform.



# YTD StatusNot MetYE StatusNot Met

#### **Key Takeaways**

• By YE, the proof-of-concept was completed, development of the Architectural Vision Document (AVD) and Solution Architecture Document (SAD) are in progress and expected to be complete by end of Q1 2024.

#### Risks or Challenges

 Missed the 2023 target to develop the detailed design to migrate distribution ground inspection application to a single digital platform due to vendor resource constraints and longer than anticipated time to re-assess workflows and requirements to optimize processes and improve data quality.

#### Actions to Improve Performance / Get Well Plan

- Final resource was onboarded in September.
- The team has completed Proof-of-Concept development and has begun the development of the Architectural Vision Document.

### WMP Activity Narratives

Missed Target Narrative – SH-2 Undergrounding

#### **Activity Target**

• Convert 11 circuit miles of overhead to underground in SCE's HFRA.

YTD Status	Not Met
YE Status	Not Met

#### Key Takeaways

• A total of 8.54 circuit miles installed and remaining miles expected to be complete by end of Q2 2024.

#### **Risks or Challenges**

• Missed the 2023 target to install 11 miles of targeted undergrounding by 2.46 circuit miles due to delays in obtaining Metropolitan Water District's (MWD) agreement on amended easement language.

#### Actions to Improve Performance / Get Well Plan

- Easement discussions have been escalated both within SCE and MWD, and resources have been dedicated to expedite resolution.
- Easement expected to be completed and recorded by end of Q1 2024.

### WMP Activity Narratives

Missed Target Narrative – <u>SH-17 Rapid Earth Fault Current Limiters (REFCL)</u>

# YTD StatusNot MetYE StatusNot Met

#### **Activity Target**

• SCE will complete construction of GFN at two substations (Acton and Phelan).

#### Key Takeaways

- Construction complete at Acton substation.
- Construction at Phelan substation is in progress and expected to be complete by end of Q2 2024

#### **Risks or Challenges**

• Missed the 2023 target to complete construction of ground fault neutralizer (GFN) at two substations due to emergent transformer replacement and material supply challenges at one substation.

#### Actions to Improve Performance / Get Well Plan

• Material supply chain issues have since been resolved.