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Managing Director, State Regulatory Operations

August 1, 2023

Docket# 2023-SCs

OFFICE OF ENERGY INFRASTRUCTURE SAFETY OF THE CALIFORNIA NATURALRESOURCES 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),¹ recommendations of the most recent safety culture assessment, a statement of the recommendations of its board of directors' safety committee² (Committee) during meetings that occurred during the second quarter of 2023, and a summary of the implementation of Committee recommendations in the second quarter of 2023 from previous meetings.

PURPOSE

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

¹ 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.

² 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."

of implementation of its wildfire mitigation plan with the office and an informationonly 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 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. 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.³

SCE provides the required information below:

(1) <u>Implementation of Wildfire Mitigation Plan</u>

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 is tracking 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 – Q2 2023), SCE presents detailed information about the implementation status of each of these wildfire-related mitigation activities. As referenced in Attachment A, SCE is currently on track to substantially meet the 2023 year-end targets set forth in its WMP. Five of the 40 activities have been completed. Thirteen activities are showing as behind plan due to several factors including severe weather in Q1, material shortages, work management tool stabilization, and resource availability. However, SCE has implemented plans to address the delays and expects to meet year-end targets for these activities. One of these activities, SH-2, though currently on-track relative to internal construction plans, has ongoing permitting and environmental constraints that will challenge our ability to achieve the year-end target. SCE is currently actively working with the impacted agencies to expedite work release for construction.

(2) Implementation of Most Recent Safety Culture Assessment

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³ Pub. Util. Code § 8389(e)(7).

Energy Safety issued the 2022 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 is addressing the four findings and recommendations of its most recent SCA report.⁴ SCE has implemented actions to address these findings and recommendations and will continue to strive towards continuous improvement in these areas.

- 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.
 - 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 Q2 SCE:

- a. Launched a two-phased rollout of a strategic enterprise software platform, Environmental Health and Safety Information Management System. This is a consolidated system for reporting incidents and accompanying incident data, safety observations and all cause evaluation data including root cause and corrective actions. The first phase will be completed in Q1 2024 and focuses on safety observations, which will further improve the quality of lessons learned.
- b. Continued to share lessons learned via the SCE Weekly Incident Report, which provides more opportunities for frontline workers to discuss lessons learned from safety incidents, incident lessons learned and tips for prevention. SCE's corporate safety organization, Edison Safety, evaluates incident trends and communicates safety notifications and information shared with our contractors such as Featured Incidents, Close Calls, Critical Observable Actions, Operating Experiences, and Good Catches. SCE will continue improving the quality of learnings as our processes and systems mature.
- Began Human and Operational Performance (HOP) training in Grid Operations in June 2023 to be completed in Grid Operations by Q2 2024. On track to complete

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⁴ 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. Discussion of the 2023 SCA process is underway.

training and launch sustainability in 2024. Substation Construction and Maintenance completed HOP training in 2022 and sustainably efforts continue to gradually create a learning organization. The HOP training will help ensure that frontline leaders are implementing training concepts such as coaching conversations grounded in HOP principles.

- d. Expanded Cause Evaluations approach to gain learnings from a broader range of safety incidents, increased field ownership and support, and enhanced efficiency, timeliness and communication. Cause Evaluations for those safety incidents involving actual and potential Serious Injuries and Fatalities are led by Cause Evaluators. Each Cause Evaluator is trained in HOP and uses HOP principles while performing evaluations and facilitating Learning Teams. The use of HOP is present throughout the evaluation process and provides a setting designed to facilitate employee feedback, which in turn supports sharing of accurate information to promote the identification of root causes of safety incidents and the implementation of corrective actions.
 - 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 cross-departmental 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 Q2 SCE:

- a. Completed the PSPS Resource Link Repository, a one-stop-shop for PSPS activation event information, tools and resources for the incident management team, field personnel and support staff. This repository was identified as a need from one-on-one interviews and surveys.
- b. Created reference guides, for each district in SCE's HFRA, to help field supervisors effectively use PSPS event situational awareness dashboards to have awareness around periods of concern, circuit de-energizations and reenergizations as they pertain to their area of responsibility.
- Continued to engage and obtain feedback from its PSPS workforce on an ongoing basis.
 - Began holding a series of on-site roundtable events designed to inform and engage Troublemen and their supervisors and managers in a conversation about PSPS. These events will continue over the next several months, focusing on districts in SCE's HFRA.

- Developed a survey as a follow-up to roundtable events asking participants feedback on the usefulness of the information presented, additional topics of interest, and meeting frequency.
- d. Continued to advance its safety culture toward building a more effective learning organization through the "Roundtable" sessions and field safety meetings to recognize workers' accomplishments and to show that frontline worker feedback is being incorporated into processes and learning development.
- e. Addressing the recommendation to consider deploying an incident management team liaison to the field during incidents, SCE considered deploying liaison positions to the field during IMT incidents and determined it is not feasible due the extensive HFRA territory impacted during an event. The Operations PSPS IMT selected liaison resources with field experience to engage with front line workers remotely throughout IMT events.
 - 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 Q2, SCE has seen further improvements in this area. More specifically, compared to the same time frame last year, there was a 47% reduction in external threats/assaults against employees and contractors in Q1-Q2 of 2023; this includes a 35% decrease in customer threats/assaults based on property access. In Q2. SCE:

- a. Implemented a tool called InspectApp used to conduct 360 (drone + ground) inspection work. As part of the application, inspectors can select categories for inspection issues at a given location such as a hostile customer, denied access, etc., and is available for tracking.
- b. The implementation of 360 (drone + ground) inspections was aimed to combine both inspection-type aerial image capture with a ground inspection to reduce the number of visits to the same customer/location. SCE is also assessing further

- opportunities to improve in future years. For Red List customers⁵, crews are aware of the location from the GIS Map Layer provided so they may request SCE Corporate Security assistance.
- c. Hosted Annual Safety Summits to provide inspectors with tools and knowledge on how to interact and communicate during challenging encounters with the public. Experts from our Corporate Security, Customer Call Center, Safety/Public Safety, and Local Public Affairs departments are included to assist in the training.
- d. In efforts to improve bilingual resources for Spanish speaking crews, SCE implemented a property access safety video in English and Spanish for SCE employees and contractors.
 - 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.

Addressing this recommendation four, in Q2 SCE:

a. Continued delivering training to frontline workers for Rapid Earth Fault Current Limiters (REFCL) with enhanced training materials. REFCL detects and reduces ground fault energy before an ignition can occur. Training options include both instructor-led and web-based training. Training on REFCL technologies, such as Isolation Bank (August-December) and Ground Fault Neutralizer (July-December) will continue through Q4 2023, targeting ~300 frontline workers.

(3) Recommendations of the Safety and Operations Committee

The Committee had one meeting during the second quarter of 2023, on April 26. During this meeting, 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 is addressed below. In addition to quarterly meetings, the Committee Chair meets regularly with SCE management to discuss wildfire and worker safety issues, and visits with crews and leaders in the field.

a. Wildfire Safety

At its regular April meeting, the Committee received an overview of WMP activities, the areas behind plan, and factors contributing to delays. The Committee received a

⁵ Red list customers are those flagged as "hostile customers".

report on the OEIS wildfire maturity model and results of OEIS's safety culture assessment, including areas of strengths and opportunities. Management also reported on the notices of violations for SCE's 2021 PSPS operations.

The Committee received a report reviewing corrosion of aluminum covered conductors located within one mile of the coast that were found during scheduled repairs and actions being taken to assess and mitigate based on risk prioritization. The Committee and management also discussed risk exposure from this issue and PSPS performance and operations.

b. Worker Safety

At its regular April meeting, the Committee received an overview of SCE worker safety performance, including a review of safety performance data and a recent contractor induction event resulting in a serious injury and fatality (SIF). The Committee received a review of the facts and circumstances of the contractor SIF incident, including induction risk and contractor work practices. The Committee and management discussed high hazards identification, updated safety procedures, safety culture and leadership, and line worker refresher training.

The Committee received a review of the findings of the investigation into the January 2023 troubleman fatality, including a discussion of additional benchmarking performed on live-front transformers, an asset replacement plan, updates to safety and work practices and planned employee communications regarding the fatality and investigation findings.

The Committee also received a report on the progress on SCE's safety work plan, including on safety observations and energy exposure mitigations, and regular benchmarking through industry groups to inform ongoing safety improvements.

The Committee was briefed on a recent flash incident resulting in two employee SIFs and the high hazard work focus of SCE's safety work plan. The briefing included the immediate actions taken, including job hazards analysis, Personal Protective Equipment (PPE) requirements, and changes made to mitigate risks.

c. Public Safety

At its regular April meeting, the Committee received a report on SCE's grid and people response to recent winter storms, including the performance of the grid, mutual assistance efforts, and incorporation of lessons learned on managing abnormal hazards from extreme weather events.

d. Committee Recommendations

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

⁶ Approximately 20 circuit miles of the nearly 5,000 miles are deployed.

1. Recommended that management provide an update on the effectiveness and cadence of refresher technical training for line workers.

e. Completed Management Responses to Committee Recommendations

In response to the Committee's recommendations in prior meetings, management provided the following responses during the Q2 meeting, the details of which are described above or were pending from prior meetings:

- Recommendation (Q1 2023): The Committee recommended that management provide an update on asset replacement plans.
 - <u>Management response</u>: The Committee received an update on asset replacement plans in the Worker Safety report at its April 2023 meeting.
- Recommendation (Q1 2023): The Committee recommended that management report on continued benchmarking for utility safety and operations.
 - <u>Management response:</u> The Committee received updates on benchmarking regarding safety work plans, live-front transformers, front pad mount equipment, Underground vault working practices, PPE trends and the Arc Flash program in the Worker Safety report at its April 2023 meeting.
- Recommendation (Q1 2023): The Committee recommended that management report on potential tools/technologies that can support the safety of workers performing solo work.
 - <u>Management response:</u> The Committee received information on potential tool/technologies that can support the safety of workers performing solo work at the field tour of the Chino Training Facility that the entire Board participated in on April 26, 2023.

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 (Q4 2022): The Committee recommended that management provide additional information regarding severity of employee injuries across classifications (e.g., SIF, DART, etc.).
- Recommendation (Q1 2023): The Committee recommended that management continue to report on prioritization of life-critical areas of focus for worker safety.

The Committee has one regular Q3 2023 meeting scheduled for August 23, 2023, 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

/s/ Connor J. Flanigan Connor J. Flanigan

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CJF:jk:cm Enclosures

SCE's 2023-2025 Wildfire Mitigation Plan (WMP) Progress Update – Q2 2023

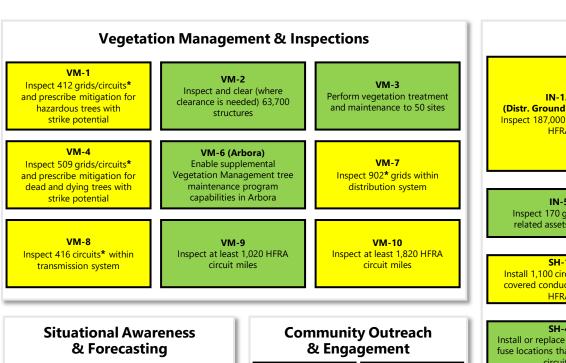
(All data is as of June 30, 2023)¹

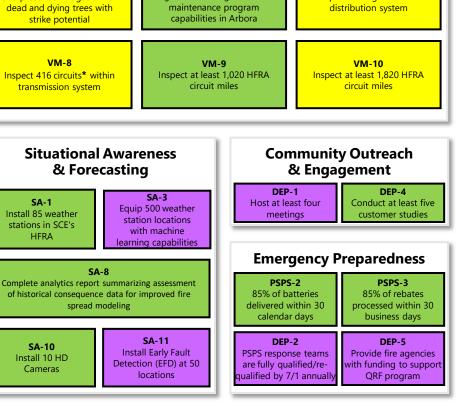
¹ Source: All data is as of June 30, 2023 (+/- 5 business days). Reported numbers are subject to revision upon data validation.



WMP Activities Summary^{1,2}







Grid Design, Operations, & Maintenance Inspect 5,300* distribution overhead circuit miles in IN-1.1 IN-1.2 (Distr. Ground and Aerial) (Trans. Ground and Aerial) Inspect 187,000 structures in Inspect 28,000 structures in **HFRA HFRA** Inspect 1,000 transmission overhead circuit miles in IN-8 (Inspection and IN-5 **Maintenance Tools**) Inspect 170 generation Inspect 50 spans with Line Distribution Ground related assets in HFRA Inspection Application SH-1 SH-2 Install 1,100 circuit miles of Convert 11 circuit miles of Inspect 50 splices with covered conductor in SCE's overhead to underground in **HFRA** SCE's HFRA SH-4 SH-5 Install or replace fusing at 500 Replace/upgrade 75 CB relay Install 6 RAR/RCS fuse locations that serve HFRA units with fast curve settings sectionalizing devices circuitry SH-8 SH-10 Install TOPD at 5 locations Remediate 400 tree Remediate 400 spans in SCE's that serve HFRA circuitry with attachments in SCE's HFRA both alarm/trip functionality SH-15 SH-16 Complete construction of Install 9 vertical switches in Retrofit vibration dampers on GFN at two substations SCF's HFRA 300 structures (Acton and Phelan)

SH-18

Complete arounding

conversion at one location,

subject to land availability

DG-1

(Ezy) Enable LiDAR data management by end of year

(WiSDM) Enable semi-automated data aggregation and external

portal for data sharing

IN-3

HFRA

IN-4

HFRA

IN-9.a

Vue

IN-9.b

X-Ray

SH-6

in SCE's HFRA

SH-14

HFRA

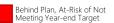
SH-17

¹ Source: All data is as of June 30, 2023 (+/- 5 business days). Reported numbers are subject to revision upon data validation.

Inactive Under Review Complete







Situational Awareness Activities

Weather **Stations**

49% Installed

Weather Stations (SA-1)

Section 8.3.1.2 Page 449

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.

Status Update: Through the end of Q2, SCE completed installation of 42 weather stations in HFRA.

High **Definition** (HD) Cameras

> 40% 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: Through the end of Q2, SCE completed installation of 4 HD cameras.

Weather and **Fuels Modeling**

> 124% 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.

Status Update: SCE met target in Q2. Program exceeded its target in May of 500 weather station locations, and a total of 621 weather station locations were equipped with new machine learning.

Early Fault Detection (EFD)

> 108% Installed

Early Fault Detection (EFD) (SA-11)

Section 8.3.1.2 Pages 449-450

Program Target: Install Early Fault Detection (EFD) at 50 locations. SCE will strive to install EFD at up to 100 locations, subject to resource constraints and other execution risks.

Status Update: SCE met target in Q2. SCE completed installation of 54 FFDs

Fire Spread Modeling

Fire Science (SA-8)

Section 8.3.1.2 Page 449

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

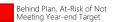
Status Update: In Q2, SCE performed analysis of historical consequence data.







Behind Plan, Likely to Meet Year-end Target



Grid Design and System Hardening

Covered Conductor

> 52% Installed

Covered Conductor (SH-1)

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: Through the end of Q2, SCE completed installation of 575.47 circuit miles of covered conductor in HFRA. Activity is off track due to weather impacting deployment in Q1, along with resource impacts associated with new contract agreements. Activity is expected to return to on-track performance in Q3 2023.

Remote Controlled Automatic Reclosers **Settings Update**

> 0% 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: Activity is scheduled to begin in Q3.

Undergrounding Overhead Conductor

> 27% Installed

Undergrounding Overhead Conductor (SH-2)

Section 8.1.1.2 Page 238

Program Target: Convert 11 circuit miles of overhead to underground in SCE's HFRA.

Status Update: Through the end of Q2, SCE completed installation of 2.99 targeted underground miles in HFRA. Activity is technically meeting internal plan YTD; however, performance toward YE target is being closely monitored due to external permitting constraints delaying project release. SCE is working with agencies to accelerate work release and the subsequent construction.

Branch Line Protection Strategy

> 91% Installed

Branch Line Protection Strategy (SH-4)

Section 8.1.1.2 Page 238

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: Through the end of Q2, SCE completed installation / replacement of 455 fuses in HFRA.

Circuit Breaker Relay Fast Curve

> 60% Installed

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: Through the end of Q2, SCE completed replacement/upgrade of 45 CB relays units with fast curve settings in SCE's HFRA.

Transmission **Open Phase** Detection

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: Activity is off track due to 4 lines that were found to be outside of HFRA. An additional 4 lines have been identified and are currently in design. Activity is expected to return to on-track performance in O4 2023.

Inactive Under Review Complete





Grid Design and System Hardening

Tree Attachment Remediation

> 1% Remediations

Tree Attachment Remediation (SH-10)

Section 8.1.1.2 Page 240

Program Target: 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.

Status Update: Through the end of Q2, SCE remediated 3 tree attachments in HFRA. Activity is off track due to severe weather impacts in regions with tree attachment scope. Activity is expected to return to on-track performance in Q3 2023.

Long Span Initiative

68% Remediations

Vertical

Switches

0%

Installed

Long Span Initiative (SH-14)

Section 8.1.1.2 Page 240

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.

Status Update: Through the end of Q2, SCE remediated 270 spans in HFRA.

Vertical Switches (SH-15)

Section 8.1.1.2 Page 240

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.

Status Update: Activity is scheduled to begin in Q3.

Vibration Damper Retrofit

> 83% Installed

Vibration Damper Retrofit (SH-16)

Section 8.1.1.2 Page 241

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.

Status Update: Through the end of Q2, SCE retrofit vibration dampers on 249 structures in HFRA.

Rapid Earth Fault Current Limiters (REFCL) (Ground Fault Neutralizer) (SH-17)

Section 8.1.1.2 Page 241

Program Target: SCE will complete construction of GFN at two substations (Acton and Phelan).

Status Update: Activity is off track due to material shortages and prerequisites for electrical construction start in Phelan. As of end of June, most major materials have been received for Phelan. Electrical construction in progress at Acton. Activity is expected to return to ontrack performance in Q4 2023.

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: In Q2, SCE published overhead grounding conversion standards, and work order design is currently in progress.

REFCL (Ground Fault Neutralizer)

REFCL

(Grounding

Conversion)

Energy for What's Ahead[™]

WMP Activities Summary²



Asset Management and Inspections

YTD Status

Ground

52%

Aerial

44%

<u>Distribution HFRI Ground / Aerial Inspections and</u> Remediations (IN-1.1)

Section 8.1.1.2 Page 242

Program 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: Through the end of Q2, SCE completed 96,995 ground and 81,579 aerial inspections in HFRA. Activity is off track due to challenges faced earlier in the year such as severe weather impacts in Q1, resource levels, and drone availability. Activity is expected to return to on-track performance in Q4 2023.

Transmission Infrared Inspections

81%

Targeted Circuits Inspected

<u>Infrared Inspection, Corona Scanning and High-Definition (HD) Imagery of Transmission facilities</u> and equipment (IN-4)

Section 8.1.1.2 Page 243

Program Target: Inspect 1,000 transmission overhead circuit miles in HFRA

Status Update: Through the end of Q2, SCE completed inspections of 809.3 transmission circuit miles in HFRA.

YTD Status

Ground

68%

Aerial

33%

<u>Transmission HFRI Ground / Aerial Inspections and</u> Remediations (IN-1.2)

Section 8.1.1.2 Page 242

Program 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: Through the end of Q2, SCE completed 19,171 ground and 9,106 aerial inspections in HFRA. Transmission Aerial is off track due to challenges faced earlier in the year such as weather impacts affecting flights and resource levels. Activity is expected to return to on-track performance in Q4 2023.

Generation Inspections

48% Inspected **Generation Inspections and Remediations (IN-5)**

Section 8.1.1.2 Pages 243-244

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.

Status Update: : Through the end of Q2, SCE inspected 82 generation related assets in HFRA.

Distribution Infrared Inspections

82%

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: Through the end of Q2, SCE completed 4,347.29 distribution overhead circuit miles in HFRA.

Inspection and Maintenance Tools Inspection & Maintenance Tools InspectForce (IN-8)

Section 8.1.1.2 Page 244

Program Target: Complete detailed design to migrate the distribution ground inspection application to the single digital platform. ²

Status Update: In Q2, SCE completed use case development for Distribution InspectForce proof of concept to migrate ground inspection to the single digital platform.

Asset Management and Inspections

YTD Status

LineVue

56%

X-Ray

76%

Transmission Conductor & Splice Assessment: Spans with LineVue & X-Ray (IN-9)

Section 8.1.1.2 Pages 244-245

Program Target:

- 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.
- 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

Status Update:

- LineVue: Through the end of Q2, SCE completed LineVue inspections on 28 spans. Activity is off track due to scheduling of outages and bundling efficiencies. Activity is expected to return to on-track performance in O3 2023.
- X-Ray: Through the end of Q2, SCE completed X-Ray inspections on 38 splices.

YTD Status

Ezy

WISDM

Wildfire Safety Data Mart and Data Management (WiSDM / Ezv) (DG-1)

Section 8.1.1.2 Pages 245

Program Target:

- **Ezy:** Enable LiDAR data management by end of year.
- **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.

Status Update:

- Ezy: In Q2, SCE senior management approved the Aerial LiDAR data to enable LiDAR data management by end of year.
- **WiSDM:** SCE met target for sub-activity in Q2 with the parallel run of semi-automated data aggregation and validation of wildfire data for SCE's Quarterly Data Request (QDR) submission and go-live of the external portal for external data sharing.

WMP Activities Summary²







Vegetation Management and Inspections

HTMP

54% Grids/Circuits Assessed

Hazard Tree Management Program (VM-1)

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: Through the end of Q2, SCE completed inspections on 221 grids/circuits. Activity is behind plan due to challenges faced earlier in the year such as severe weather impacts in Q1, onboarding of new vendors, and technical issues with the vegetation work management tool. Activity is expected to return to on-track performance in Q3 2023.

Structure Brushina

62% Structures Cleared

Structure Brushing (VM-2)

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: Through the end of Q2, SCE completed inspections and cleared (where clearance is needed) 39,679 structures in HFRA.

Expanded Clearances for **Legacy Facilities**

> 64% 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: Through the end of Q2, SCE performed vegetation treatment and maintenance at 32 sites

Dead and Dying Tree Removal

52% 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: Through the end of Q2, SCE completed inspections on 264 grids/circuits. Activity is behind plan due to challenges faced earlier in the year such as severe weather impacts in Q1, onboarding of new vendors, and technical issues with the vegetation work management tool. Activity is expected to return to on-track performance in Q3 2023.

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: In Q2, SCE developed release schedule/plan for Arbora supplemental (emergent work) capabilities and business readiness plan to support enablement of emergent work in Arbora.

WMP Activities Summary²

Inactive Under Review Complete

Vegetation Management and Inspections

Detailed **Inspections:** Distribution

53% Inspections

Detailed inspections and management practices for vegetation clearances around Distribution electrical lines, and equipment (VM-7)

Section 8.2.1.2 Page 380

Program Target: SCE plans to inspect 902* grids within our distribution system.

Status Update: As of Q2, SCE completed inspecting 482 grids which is lower than the Q2 target grid count. However, completed grids are being counted differently than how targets were set. SCE will update target with the corrected grid count in the Q3 quarterly notification or pursuant to OEIS guidance.

Detailed **Inspections: Transmission**

65% Inspections

Detailed inspections and management practices for vegetation clearances around Transmission electrical lines, and equipment (VM-8)

Section 8.2.1.2 Page 380

Program Target: SCE plans to inspect 416* circuits within our transmission system.

Status Update: As of Q2, SCE completed inspecting 270 grids which is lower than the Q2 target grid count. However, completed grids are being counted differently than how targets were set. SCE inadvertently had errors in how grids were counted to set the target, which SCE will correct in the Q3 quarterly notification or pursuant to OEIS guidance. However, SCE has sufficient scope to meet current year-end target and activity is expected to return to on-track performance in Q3 2023.

LiDAR Vegetation Inspections – Distribution

68%

Inspections

LiDAR Vegetation Inspections – Distribution (VM-9)

Section 8.2.1.2 Page 380

Program Target: SCE will inspect at least 1,020 HFRA circuit miles. Subject to change based on technology, program adjustments, and grid/circuits layout.

Status Update: Through the end of Q2, SCE completed inspection of 694.07 HFRA circuit miles.

LiDAR Vegetation Inspections -**Transmission**

> 68% Inspections

LiDAR Vegetation Inspections – Transmission (VM-10)

Section 8.2.1.2 Page 381

Program Target: SCE will inspect at least 1,820 HFRA circuit miles. Subject to change based on program adjustments and evolution of remote sensing technologies.

Status Update: Through the end of Q2, SCE completed inspection of 1,240.82 HFRA circuit miles in HFRA. Activity is off track due to challenges faced earlier in the year with GIS discrepancies and vendor capacity constraints, both have which have since been resolved. Activity is expected to return to on-track performance in Q3 2023.









Emergency Preparedness

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

99%

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 days³ 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.3

Status Update: Through the end of Q2, 99% of customers enrolled received their battery within 30 calendar days.

Customer Care Programs (Portable Power Station and Generator Rebates)

100%

On-Time Rebates Processed

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 days³ 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.3

Status Update: Through the end of Q2, 100% of rebate claims submitted were processed and distributed 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. SCE executed all readiness trainings to ensure PSPS response teams are fully qualified/requalified by 7/1 annually to maintain readiness.

Aerial **Suppression**

Aerial Suppression (DEP-5)

Section 8.4.1.2 Page 523

Program Target: Provide fire agencies with funding to support guick reaction force (QRF) program for 2023.

Status Update: SCE met target in Q1. Contracts were issued at the end of 2022 and final payment was provided to the agencies in January 2023.





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. SCE hosted four wildfire community safety meetings by region in targeted HFRA communities.

Customer Research and Education

40%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: Through the end of Q2, SCE completed two of five PSPS-related customer studies.

Off-Track Narrative – IN-1.1A Dist. HFRI Inspections in HFRA Ground

YTD Status	Behind Plan
YE Outlook	On Track

Activity 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).

Key Takeaways

- Off track by 4% (96,995 inspections YTD vs 101,320 planned).
- Activity is off track due to challenges faced earlier in the year such as severe weather impacts in Q1, resource levels, and drone availability.
- Activity is expected to return to on-track performance in Q4 2023.

Risks or Challenges

- Continue striving for performance improvements in new 360 inspection method.
- Ensure timely drone replenishment for electrical systems inspectors.

- Reallocate work from lowest performing vendor to other higherperforming vendors / Electrical System Inspectors (ESI).
- Onboard additional resources in preparation of increased scope to support recovery.
- Utilize overtime and additional resources are being hired/upgraded.

Off-Track Narrative – IN-1.1B Dist. HFRI Inspections in HFRA Aerial

YTD Status	Behind Plan
YE Outlook	On Track

Activity 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).

Key Takeaways

- Off track by 19% (81,579 inspections YTD vs 101,320 planned).
- Activity is off track due to challenges faced earlier in the year such as severe weather impacts in Q1, resource levels, and drone availability.
- Activity is expected to return to on-track performance in Q4 2023.

Risks or Challenges

- Continue striving for performance improvements in new 360 inspection method.
- Ensure timely drone replenishment for electrical systems inspectors.

- Reallocate work from lowest performing vendor to other higherperforming vendors / Electrical System Inspectors (ESI).
- Onboard additional resources in preparation of increased scope to support recovery.
- Utilize overtime and additional resources are being hired/upgraded.

Off-Track Narrative – IN-1.2B Transmission HFRI Inspections in HFRA Aerial

YTD Status Behind Plan
YE Outlook On Track

Activity Target

 Inspect 28,000 structures in HFRA SCE will strive to inspect up to 29,500 structures in HFRA.

Key Takeaways

- Off track by 37% (9,106 inspections YTD vs 14,400 planned).
- Activity is off track due to challenges faced earlier in the year such as weather impacts affecting flights and resource levels.
- Activity is expected to return to on-track performance in Q4 2023.

Risks or Challenges

• Onboarding delays for four new inspectors could impact recovery plan.

Actions to Improve Performance / Get Well Plan

• Onboard additional resources and utilize overtime as needed to support recovery plan.

Off-Track Narrative – IN-9A Transmission Conductor & Splice Assessment LineVue

YTD Status	Behind Plan
YE Outlook	On Track

Activity Target

- 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.

Key Takeaways

- Off track by 7% (28 inspections YTD vs 30 planned).
- Activity is off track due to scheduling of outages and bundling efficiencies.
- Activity is expected to return to on-track performance in Q3 2023.

Risks or Challenges

No significant risks known at this time.

Actions to Improve Performance / Get Well Plan

 Schedule inspections for late July/early August to take advantage of outage timeframes and bundle work together with X-Ray inspections.

Off-Track Narrative – SH-1 Covered Conductor (WCCP and Non-WCCP)

YTD Status	Behind Plan
YE Outlook	On Track

Activity 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.

Key Takeaways

- Off track by 11% (575.47 circuit miles YTD vs 645 planned).
- Activity is off track due to weather impacting deployment of miles, along with resource impacts associated with new contract agreements.
- Activity is expected to return to on-track performance in Q3 2023.

Risks or Challenges

New contract agreements pose a risk to resource levels.

- Onboard additional resources and utilize overtime as needed to support recovery plan.
- Shift resources to other regions to support overall workload.
- Release additional contingency scope to work toward achieving target.

Off-Track Narrative – SH-2 Undergrounding

Activity Target

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

YTD Status	On Track
YE Outlook	Behind Plan

Key Takeaways

- Activity is technically meeting internal plan YTD; however, performance toward YE target is being closely monitored due to external permitting constraints delaying project release.
- SCE is actively engaging agencies to work through delays in receiving entry permits and easements from local agencies, as well as constraints due to environmental permits.

Risks or Challenges

- If permitting and easement delays are not mitigated in a timely manner, achievement of YE target is at risk.
- Q3/Q4 weather conditions and local moratoriums may impact civil and electrical construction timelines.

- Onboard additional vendors to perform civil construction on projects as needed; provide enough time for electrical crews to complete undergrounding projects post-completion of civil work.
- Seek to accelerate additional contingency scope from future years.
- Expedite easement and permit approvals, large project release expected at the end of July.

Off-Track Narrative – SH-8 Transmission Open Phase Detection

YTD Status	Behind Plan
YE Outlook	On Track

Activity Target

 Install TOPD at 5 locations that serve HFRA circuitry with both alarm and trip functionality.

Key Takeaways

- Off track to install TOPD at 5 locations.
- Activity is off track due to 4 lines that were found to be outside of HFRA.
- An additional 4 lines have been identified and are currently in design.
- Activity is expected to return to on-track performance in Q4 2023.

Risks or Challenges

Weather could impact ability to schedule needed outages.

- Obtained resource commitments from impacted stakeholders for a year-end in-service of added lines.
- Complete designs for additional 4 lines which are currently in progress.
- Secure outage windows for additional 4 lines.

Off-Track Narrative – SH-10 Tree Attachment Remediation

YTD Status	Behind Plan
YE Outlook	On Track

Activity Target

- 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.

Key Takeaways

- Off track by 99% (3 attachments remediated YTD vs 215 planned).
- Activity is off track due to severe weather in regions with tree attachment scope.
- Activity is expected to return to on-track performance in Q3 2023.

Risks or Challenges

Awaiting snow melt to gain access to work areas.

- Prioritize completion of work once work areas are accessible and safe.
- Onboard additional resources and utilize overtime as needed to support recovery plan.

Off-Track Narrative – SH-17 Rapid Earth Fault Current Limiters (REFCL)

YTD Status	Behind Plan
YE Outlook	On Track

Activity Target

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

Key Takeaways

- Activity is off track due to material shortages and prerequisites for electrical construction start in Phelan.
- As of end of June, most major materials have been received for Phelan.
- Electrical construction in progress at Acton.
- Activity is expected to return to on-track performance in Q4 2023.

Risks or Challenges

- Prerequisite work and warranty repairs may delay construction on both sites.
- Hot weather may further inhibit ability to secure outage window.

- Work with procurement to address material availability.
- Coordinate warranty repairs with vendors.

Off-Track Narrative – VM-1 Hazard Tree Management Program

YTD Status	Behind Plan
YE Outlook	On Track

Activity Target

• Inspect 412 grids/circuits* and prescribe mitigation for hazardous trees with strike potential within those grids in SCE's HFRA.

Key Takeaways

- Off track by 15% (221 grids YTD vs 260 planned).
- Activity is behind plan due to challenges faced earlier in the year such as severe weather impacts in Q1, onboarding of new vendors, and technical issues with the vegetation work management tool.
- Activity is expected to return to on-track performance in Q3 2023.

Risks or Challenges

 Pre-inspection contract change includes three vendors who are new to the Hazard Tree Program.

- Conduct refresher training with newest contractor and benchmark trainings being planned for all contractors to set and establish best practices.
- Provide weekly status updates on vendor progress of each circuit with estimated completion dates.
- Facilitate bi-weekly calls with vendors to ensure work is on track as areas heavily impacted by weather and snow are now accessible.
- Continue to troubleshoot vegetation work management tool system through increased communication with IT, assessors, and tree crews.

Off-Track Narrative – VM-4 Dead & Dying Tree Removal

Activity Target

• Inspect 509 grids/circuits* and prescribe mitigation for dead and dying trees with strike potential within those grids/circuits.

YTD Status	Behind Plan
YE Outlook	On Track

Key Takeaways

- Off track by 11% (264 grids YTD vs 298 planned).
- Activity is behind plan due to challenges faced earlier in the year such as severe weather impacts in Q1, onboarding of new vendors, and technical issues with the vegetation work management tool.
- Activity is expected to return to on-track performance in Q3 2023.

Risks or Challenges

 Manual process for flagging and releasing of environmental holds in Arbora.

- Conduct refresher training with newest contractor and benchmark trainings being planned for all contractors to set and establish best practices.
- Provide weekly status updates on vendor progress of each circuit with estimated completion dates.
- Facilitate bi-weekly calls with vendors to ensure work is on track as areas heavily impacted by weather and snow are now accessible.
- Continue to troubleshoot vegetation work management tool system through increased communication with IT, assessors, and tree crews.

Off-Track Narrative - VM-7 Distribution Line Clearing

Activity Target

 SCE plans to inspect 902* grids within our distribution system (to inform trimming prescriptions in the January to December calendar year, with inspections occurring as early as November 1 in the prior year).

Risk	s or	Chall	lenges	

- YTD status of "Behind Plan" is driven primarily by the need to update the total count of HFRA distribution grids available for inspection.
- Projections for the updated total count of HFRA grids indicate SCE is on track to meet YE target.

YTD Status	Behind Plan
YE Outlook	On Track

Key Takeaways

- Off track by 6% (482 grids YTD vs 514 planned).
- Activity is off track relative to the current target of 902 grids. Based on analysis performed this year, SCE will need to revise the count of Vegetation Management grids in HFRA, which will reduce the total number of HFRA grids to inspect YTD.
- This update does not change SCE's plan to inspect all distribution grids including all HFRA grids this year.

Actions to Improve Performance / Get Well Plan

• SCE will update its target grid counts for the Q3 quarterly notification or pursuant to Energy Safety's guidance.

Off-Track Narrative – VM-8 Transmission Line Clearing

Activity Target

 SCE plans to inspect 416 circuits* within our transmission system (to inform trimming prescriptions in the January to December calendar year, with inspections occurring as early as November 1 in the prior year).

YTD Status	Behind Plan
YE Outlook	On Track

Key Takeaways

- Off track by 1% (270 grids YTD vs 273 planned).
- Activity is off track due to revised count of Vegetation Management grids in HFRA which reduced the total number of HFRA circuits available for inspection YTD.
- Activity is expected to return to on-track performance in Q3 2023.

Risks or Challenges

No significant risks known at this time.

Actions to Improve Performance / Get Well Plan

 100% of the transmission circuits in HFRA will still be inspected through this program and inventory is sufficient to meet year-end target.

Off-Track Narrative – VM-10 LiDAR Transmission Vegetation Inspections

YTD Status	Behind Plan
YE Outlook	On Track

Activity Target

SCE will inspect at least 1,820 HFRA circuit miles.

Key Takeaways

- Off track by 11% (1,240.82 circuit miles YTD vs 1,390 planned).
- Activity is off track due to challenges faced earlier in the year with GIS discrepancies and vendor capacity constraints, both have since been resolved.
- Activity is expected to return to on-track performance in Q3 2023.

Risks or Challenges

No significant risks known at this time.

- Increase timeliness of report deliveries.
- Work with vendors to ensure alignment to recovery plan.