State of California – A Natural Resources Agency
Gavin Newsom, Governor

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Caroline Thomas Jacobs, Director

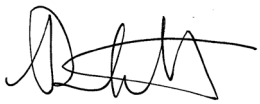
September 24, 2025

Dear Stakeholders,

Enclosed is the Office of Energy Infrastructure Safety's (Energy Safety's) Annual Report on Compliance regarding Southern California Edison Company's execution of its 2023 Wildfire Mitigation Plan.

This Annual Report on Compliance is published as of the date of this letter. Southern California Edison Company may, if it wishes to do so, file a public response to this Annual Report on Compliance within 14 calendar days of the date of publication. Comments must be submitted to the Energy Safety's E-Filing system in the 2023 Annual Report on Compliance docket.[1]

Sincerely,



Patrick Doherty
Program Manager | Compliance Assurance Division
Electrical Infrastructure Directorate
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[1] Submit responses to the 2023-ARC docket via the Office of Energy Infrastructure Safety's E-Filing system here: https://efiling.energysafety.ca.gov/EFiling/DocketInformation.aspx?docketnumber=2023-ARC.

OFFICE OF ENERGY INFRASTRUCTURE SAFETY

2023 ANNUAL REPORT ON COMPLIANCE

SOUTHERN CALIFORNIA EDISON COMPANY

September 2025

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Executive Summary

The Office of Energy Infrastructure Safety (Energy Safety) is tasked with assessing and either approving or denying Wildfire Mitigation Plans (WMPs) annually filed by electrical corporations pursuant to Public Utilities Code section 8386 *et seq*. The law also directs Energy Safety to ensure that the electrical corporations have complied with their WMPs.

Energy Safety's assessment found that SCE completed 46 of 51 (90%) of its 2023 targets for initiative activities in its 2023-2025 Base WMP (2023 WMP), including nine of the 10 initiatives with the largest planned expenditure. However, SCE failed to meet targets for five of its 2023 WMP initiative activities and objectives. Of these five, two (Undergrounding Overhead Conductor and Rapid Earth Fault Current Limiter) were integral to SCE's risk mitigation in its Severe Risk Areas, and therefore SCE's inability to complete this work meant that SCE did not reduce half of the risk targeted by these two initiatives in its Severe Risk Areas in 2023.

For the 2023 compliance year, SCE spent below its planned amount by approximately $296.2 million (18% of the planned budget). SCE explained that actual spending deviated from its planned spending for various reasons, including but not limited to material supply chain issues, program delays, variance in the planned volume of work completed, and variable material and labor costs.

With respect to SCE's performance on ignition risk and outcome metrics in 2023, ignitions declined from 2021 to 2023, whereas outcomes such as outages and wires down remained stable from 2016 to 2023. Compliance during 2024 and 2025 will be evaluated in future Annual Reports on Compliance.

Pursuant to Government Code section 15475.1, Energy Safety's primary objective is to ensure that electrical corporations reduce wildfire risk and comply with energy infrastructure safety measures. Energy Safety's annual compliance evaluation of Southern California Edison Company's (SCE's) execution of its 2023 WMP is a comprehensive look at whether SCE's completion of its 2023 WMP initiatives reduced the risk of its equipment igniting a catastrophic wildfire.

Energy Safety conducted its compliance review process through a variety of means including audits, field inspections, and analysis of data submitted by SCE to Energy Safety. Energy Safety also assessed several performance metrics, including metrics that reveal the risk on SCE's system. Energy Safety additionally reviewed SCE's self-assessment in its Electrical Corporation Annual Report on Compliance (EC ARC) and the findings of its independent evaluator.

Energy Safety has identified areas for improvement in the accuracy of documentation of its WMP implementation by SCE and expects SCE to improve the accuracy of its documentation going forward. Energy Safety acknowledges that in 2023, SCE undertook efforts to reduce its wildfire risk, and in many instances achieved its WMP initiative activity targets. However,

there are still areas to improve upon and opportunities to continue learning, especially considering the missed initiative targets.

1. Introduction

This Annual Report on Compliance presents the Office of Energy Infrastructure Safety's (Energy Safety's) statutorily mandated assessment of Southern California Edison Company's (SCE's) compliance with its 2023 targets for initiatives and objectives in its 2023-2025 Base Wildfire Mitigation Plan (2023 WMP).[1] While the 2023-2025 Base WMP considers activities over a three- and 10-year horizon, this report only addresses targets established for initiatives and objectives for the 2023 compliance year. Therefore, this report uses the term "2023 WMP" to refer to portions of the 2023-2025 Base WMP addressed by this report.

In the sections that follow, Energy Safety describes the statutory and regulatory basis for its reporting, the information supplied by SCE, the independent evaluation conducted by a third-party independent evaluator that examined SCE's execution of its 2023 WMP, and how SCE's infrastructure performed in 2023 relative to wildfire risk. Finally, Energy Safety provides its conclusions, observations, and recommendations for further actions by SCE.

1.1 Compliance Process

The statutory objective of electrical corporation wildfire mitigation planning efforts is to ensure that electrical corporations are constructing, maintaining, and operating their infrastructure in a manner that will minimize the risk of catastrophic wildfire.[2]

Energy Safety's 2024 Compliance Process, as approved by the California Public Utilities Commission, establishes the parameters for this Annual Report on Compliance. Consistent with the 2024 Compliance Process, this report considers the totality of all compliance assessments completed with respect to SCE's 2023 WMP. This includes all inspection, audit, investigation, and data analysis work performed by Energy Safety, as well as separate electrical corporation and independent third-party evaluations of compliance.[3]

Energy Safety assessed whether the electrical corporation met the 2023 WMP targets for initiatives and objectives, looking specifically at whether the electrical corporation funded and performed the work stated for each initiative.[4]

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[1] 2023 WMP.
[2] Pub. Util. Code § 8386(a).
[3] Compliance Process, p. 8.
[4] Compliance Process, p. 8.

2. SCE 2023 Wildfire Mitigation Plan

SCE submitted a comprehensive WMP in 2023 covering a three-year term from 2023 through the end of 2025.[5]

Energy Safety approved SCE's 2023 WMP on October 24, 2023.[6] SCE's 2023 WMP highlighted past and ongoing efforts to address wildfire risk and reduce the impacts of Public Safety Power Shutoff (PSPS) events.[7] The 2023 WMP described 41 initiatives and other activities, which are divided up into eight categories and summarized here:[8]

- Risk Methodology and Assessment: SCE planned to continue advancements in risk modeling capabilities for efficient allocation of resources to mitigate wildfire risk effectively. SCE focused on various initiatives such as improved machine learning models, weather and fuels information, advanced climate scenarios, and completion of grid hardening projects.[9]
- Grid Design, Operations, and Maintenance: SCE planned to continue its grid hardening approach by installing additional covered conductors, implementing Rapid Earth Fault Current Limiter (REFCL) and Early Fault Detection (EFD) technologies, and conducting High Fire Risk Informed (HFRI) inspections and remediations.[10]
- Vegetation Management and Inspections: SCE planned to continue the reduction of the risk of vegetation contact with energized equipment. SCE planned to accomplish this by maintaining the required distance between trees and circuit lines, by removing dead or dying trees, and clearing vegetation by using an improved risk-informed inspection framework.[11]
- Situational Awareness and Forecasting: SCE planned to continue advancement of its fire spread modeling, weather modeling, and situational awareness capabilities to better predict fire weather and increase its ability to respond before and after fire and PSPS events. SCE planned to deploy additional weather stations and high-definition wildfire cameras to expand monitoring.[12]

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[5] 2023 WMP.
[6] 2023-2025 Base WMP Approval.
[7] 2023 WMP, pages 1-5.
[8] 2023 WMP, pages 5-9.
[9] 2023 WMP, pages 5-6.
[10] 2023 WMP, pages 6-7
[11] 2023 WMP, page 7.
[12] 2023 WMP, page 7.

- Emergency Preparedness: SCE planned to continue its emergency preparedness by having a dedicated customer support team to assist impacted customers, an incident management team to manage emergency responses, and expanding partnerships with fire agencies by maintaining a quick reaction force of ariel firefighting resources.[13]
- Community Outreach and Engagement: SCE planned to focus their engagement on vulnerable communities and communities that are heavily impacted by PSPS events.[14]
- Public Safety Power Shutoffs: SCE planned to continue targeted grid hardening, streamlining of PSPS processes, and providing backup power to select customers to reduce impacts to customers that have historically experienced PSPS events.[15]
- Wildfire Capability Maturity: SCE planned to continue improving its wildfire mitigation capabilities and refining its wildfire maturity model to measure progress.[16]

The 2023 WMP also contains three- and ten-year objectives.

Selected three-year objectives include:[17]

- Continue to perform targeted grid hardening to minimize impact on customers by reducing the scope and frequency of PSPS events.
- Continue to prioritize grid hardening deployment based on the Integrated Wildfire Mitigation Strategy (IWMS) risk framework.
- Continue to deploy protection system mitigations while refining circuit protection strategies to further reduce wildfire risk while balancing system reliability.
- Develop and implement risk-prioritized remediations to reduce backlog of asset notifications.
- Increased data collection through additional weather station deployment, increased collection intervals, and additional high-definition camera deployment that may expand situational awareness of real-time conditions and refine weather models.
- Complete the Joint-Investor-Owned Utility Effectiveness of Expanded Clearances study.

Selected ten-year objectives include:[18]

- Complete all proactive wildfire mitigation grid hardening.
- Obtain and implement more efficient programmatic permitting that allows for more streamlined execution of grid hardening and inspection work.

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[13] 2023 WMP, pages 7- 8.
[14] 2023 WMP, page 8.
[15] 2023 WMP, page 8.
[16] 2023 WMP, page 9.
[17] 2023 WMP, pages 231-233, 375, and 446.
[18] 2023 WMP, pages 234-235, 376, and 447.

- Scale any new successful emergent technologies to supplement existing foundational grid hardening mitigations.
- Integrate artificial intelligence or machine learning analytical tools into inspection image data analysis to better identify assets and defects.
- Incorporate climate modeling into medium- and long-term weather and fire potential forecasts.
- Optimize vegetation inspection cycles and prescriptions based on risk factors (e.g., species and wind) for more granular locations.

There were no objectives with targets specific to the compliance year 2023 other than in the associated initiatives.

3. SCE Annual Report on Compliance

Public Utilities Code section 8386.3(c)(1) directs electrical corporations to file a report addressing the electrical corporation's compliance with their WMP during a compliance year. This document is known as the Electrical Corporation Annual Report on Compliance (EC ARC).

Energy Safety's 2023 Compliance Guidelines outlined the requirements for an EC ARC prepared to address the 2023 compliance year and filed by the electrical corporation in early 2024. The EC ARC was required to detail the electrical corporation's self-assessment of its compliance with the 2023 WMP during the 2023 compliance period.[19]

SCE submitted its EC ARC to Energy Safety on April 2, 2024.[20] The following is a narrative summary of the EC ARC.

In general, in the EC ARC, SCE stated that it substantially complied with its approved 2023 WMP for wildfire mitigation and achieved the planned risk reduction goals outlined in its 2023 WMP for all but three initiatives: Rapid Earth Fault Circuit Limiter – Ground Fault Neutralizer (SH-17), Undergrounding Overhead Conductor (SH-2), and Inspections and Maintenance Tools (IN-8).[21]

According to SCE's 2023 EC ARC, SCE implemented and tracked the progress of 41 different initiatives outlined in its 2023 WMP: 35 quantitative initiatives and six qualitative initiatives.[22]

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[19] Compliance Guidelines.
[20] EC ARC.
[21] EC ARC, page 2.
[22] EC ARC, Appendix B.

Additionally, SCE stated that they did not have any three-year objectives due for completion in 2023 and that all three-year objectives are in-progress and underway.[23]

3.1 EC ARC Information on Initiative Completion

In the EC ARC, SCE highlighted the following as key accomplishments in 2023:

- Covered Conductor (SH-1): SCE reported installing 1,220 (111%) of the 1,110 targeted circuit miles of covered conductor for 2023.[24]
- Circuit Breaker Relay Fast Curve (SH-6): SCE reported replacing 96 (128%) of the 75 targeted circuit breaker relay units for 2023.[25]
- Vibration Damper Retrofit (SH-16): SCE claimed to have retrofitted 396 (132%) of the 300 targeted vibration dampers for 2023.[26]
- Generation Inspections and Remediations (IN-5): SCE claimed to have inspected 225 (132%) of the 170 targeted generation-related asset inspections for 2023.[27]
- Transmission Conductor and Splice Assessment (IN-9a and IN-9b): SCE reported inspecting 70 (140%) of the 50 targeted Live Vue Spans and inspected 55 (110%) of the 50 spans targeted for X-Ray inspections for 2023.[28]
- Structure Brushing (VM-2): SCE claimed to have inspected and cleared 113,570 (178%) structures of the 63,700 structures targeted for clearance for 2023.[29]
- Expanded Clearances for Legacy Facilities (VM-3): SCE claimed to have performed expanded clearance for legacy facilities at a total of 63 sites, or 126% of the targeted 50 sites.[30]

In the EC ARC, SCE self-reported that it did not meet program targets for the following initiatives:[31]

1. Undergrounding Overhead Conductor (SH-2): SCE reported the completion of 5.39 miles (49%) of the targeted 11 circuit miles to be converted from overhead conductor to underground conductor in SCE's High Fire Risk Area (HFRA) in 2023. SCE pointed to delays in obtaining an agreement on language to amend a water district easement for one circuit.[32]

[23] EC ARC, page 17.
[24] EC ARC, page 39.
[25] EC ARC, page 39.
[26] EC ARC, page 40.
[27] EC ARC, page 42.
[28] EC ARC, page 43.
[29] EC ARC, page 44.
[30] EC ARC, page 44.
[31] EC ARC, pages 19, 20, and 23.
[32] EC ARC, page 21.

2. Rapid Earth Fault Current Limiter – Ground Fault Neutralizer (SH-17): SCE claimed to have completed installation at one of two substations. SCE stated that the second substation was not completed due to unforeseen construction delays associated with an emergent transformer replacement at the substation; along with material supply chain challenges.[33]
3. Inspection and Maintenance Tools (IN-8): SCE stated that the 2023 WMP goal of migrating the distribution ground inspection applications to a single digital platform was delayed due to vendor resource constraints, longer than anticipated time to re-assess workflows, and requirements to optimize processes and improve data quality.[34]

The three self-declared missed initiatives along with all the other 2023 WMP initiatives are listed in the table in Appendix A.

For risk reduction, SCE maintained that it met or exceeded the risk reduction intent, as described in the 2023 ARC, for all but eight of the 41 2023 WMP initiatives tracked by SCE.[35, 36]

3.2 EC ARC Information on Initiative Funding

In the EC ARC, SCE indicated that it spent below the planned amounts on its 2023 WMP initiatives by approximately $356.9 million, or 19% of the total planned amount.[37, 38] This amount is broken out by capital and operational expenditures in Table 1.[39] Actual spending deviated from planned spending for various reasons, including but not limited to material supply chain issues, program delays, variance in the planned volume of work completed, and variable material and labor costs.[40]

[33] EC ARC, page 21.
[34] EC ARC, page 24.
[35] EC ARC, pages 22-33.
[36] The EC ARC did not report if quantitative initiatives SH-2, SH-17, DEP-1 and DEP-4 met the risk reduction intent (EC ARC, pages 19 to 31). The EC ARC did not report if qualitative initiatives IN-8, DG-1, VM-6, and DEP-2 met the risk reduction intent (EC ARC, pages 23 to 29).
[37] SCE ARC for 2023 WMP Cost Variance Explanation.
[38] This amount is self-reported by SCE but differs from the amount determined by Energy Safety to apply in 2023 and reported in the Executive Summary, Conclusions, and Section 4 of this report.
[39] These values are as reported in the EC ARC and do not necessarily align with Energy Safety findings listed in Appendix A. For example, SCE reported expenditures in the EC ARC for initiatives that had no corresponding targets in its WMP: Environmental compliance and permitting (5.4.5), Line Removals in high fire threat districts (8.1.2.9.1), and Customer support in wildfire and PSPS emergencies (8.4.6).
[40] EC ARC Cost Variance Explanation.

Table 1. Overview of EC ARC Reported 2023 WMP Budget and Expenditures

	Planned	Actual	Over/(Under)
Capital Expenditures	$1.147 Billion	$0.975 Billion	($171.7 Million)
Operational Expenditures	$0.723 Billion	$0.538 Billion	($185.2 Million)
Total	$1.870 Billion	$1.513 Billion	($356.9 Million)

4. Independent Evaluator ARC for SCE

Energy Safety, in consultation with the Office of the State Fire Marshal, annually publishes a list of entities qualified to serve as independent evaluators of WMP compliance.[41] Each electrical corporation is then required to hire an independent evaluator (IE) from the list to perform an independent WMP compliance evaluation.[42]

The IE reviews and evaluates the electrical corporation's compliance with its approved WMP. As part of its evaluation, the IE must determine whether the electrical corporation failed to fund any activities included in its plan.

On July 1st of each year, the IE issues its Independent Evaluator Annual Report on Compliance (IE ARC) for a given electrical corporation.[43]

The 2023 IE ARC for SCE was prepared by NuConsult Services, LLC. The IE ARC included a review of the wildfire mitigation initiatives and activities implemented in 2023, and an accounting of whether SCE met its performance targets, failed to fund any of the initiatives, and followed its quality assurance and quality control (QA/QC) processes.

The IE concluded that SCE exceeded several of their target goals for field verifiable initiatives and demonstrated a strong commitment to wildfire mitigation,[44] but the IE did not draw any conclusions that SCE met or did not meet its goals of reducing the risk on its network. The IE also evaluated SCE's funding of initiatives and concluded that SCE appropriately allocated

[41] Pub. Util. Code § 8386.3(c)(2)(A).
[42] Pub. Util. Code § 8386.3(c)(2)(B)(i).
[43] Pub. Util. Code § 8386.3(c)(2)(B)(i).
[44] IE ARC, page 60.

funds as approved per the 2023 WMP.[45] Finally, the IE reviewed SCE's QA/QC processes and validated all QA/QC programs.[46]

The IE utilized a variety of techniques to analyze SCE's progress toward meeting its 2023 WMP commitments, such as inspecting a sample of SCE's field-verifiable 2023 WMP initiatives and performing desk reviews of non-field verifiable initiatives.[47] The IE evaluated a total of 41 initiatives with targets in the IE ARC.[48] The IE ARC identified the same three initiatives that the EC ARC found were not complete, which are indicated as such in the table of Appendix A.

As a result of the evaluation conducted, the IE provided observations on SCE in certain areas:

- SCE provided the IE as-built drawings for Underground of Overhead Conductor (SH-2), which did not include information, such as completion date, personnel responsible for completion, or a work order number. The IE noted that paperwork and tracking systems to be an area of improvement for SCE.[49]
- The IE found that one of the two targeted REFCLs (SH-17) was installed but not yet commissioned. The IE noted that any potential mitigation benefit achieved would be unlikely.[50]
- The IE discovered that vibration damper installations recorded as complete in SCE's database were missing on an inspected structure. The IE investigated and determined the work order to be incorrectly reported. The IE noted that paperwork and tracking systems to be an area of improvement for SCE.[51]
- The IE reported that 140 of 204 quality control inspections were not closed out by the end of 2023. The IE provided SCE with recommendations, such as enhancing a training program, utilizing key process indicators to track and measure quality control inspection completion rates, conducting root cause analysis to prevent recurring issues, and implementing regular reviews on open quality control inspections.[52]

The IE evaluated financial data for 65 initiatives, including both quantitative and qualitative initiatives.[53] In general, the IE ARC found that 37 (90%) of SCE's 41 WMP activities for 2023 were funded below the planned amount and that three (7%) of the 41 initiative targets were not met.[54]

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[45] IE ARC, page 31.
[46] IE ARC, pages 55-58.
[47] IE ARC, page 6.
[48] IE ARC, pages 14-24.
[49] IE ARC, page 26.
[50] IE ARC, page 27.
[51] IE ARC, page 29.
[52] IE ARC, page 59.
[53] IE ARC, pages 30-40.
[54] IE ARC, pages 68-80.

5. Energy Safety Assessment of WMP Initiative Completion

Energy Safety's assessment of SCE's performance in 2023 indicates that SCE attained 46 (90%) of its 51 targets for its 2023 WMP initiative activities. The subsections below further describe Energy Safety's assessment of SCE's execution of its 2023 WMP.

5.1 SCE 2023 WMP Initiative Activities Assessed by Energy Safety

Energy Safety assessed 51 wildfire mitigation initiatives from the 2023 WMP.[55] The initiatives are grouped into five main categories:

1. Grid Design, Operation, and Maintenance with 21 initiatives assessed and an associated funding budget of $1.26 billion.
2. Vegetation Management and Inspection with 19 initiatives assessed and a funding budget of $339.1 million. Of the 19 initiatives, 13 initiatives were assessed in the Substantial Vegetation Management (SVM) Audit Report and the remaining six were assessed in this ARC.
3. Situational Awareness and Forecasting with five initiatives assessed and a funding budget of $25.3 million.
4. Emergency Preparedness with four initiatives assessed and a funding budget of $50.5 million.
5. Community Outreach and Engagement with two initiatives assessed and a funding budget of $4.1 million.

A complete list of initiatives along with funding information appears in Appendix A, Table 5.

The initiative assessment process included comparing the actual initiative completion as reported by SCE in the quarterly data report (QDR) and the EC ARC, and as reported by the IE

[55] The Energy Safety SVM Audit and SVM Audit Report assessed 10 additional initiatives that were not tracked by SCE and were not included in the EC ARC and IE ARC (8.2.3.2-Wood and slash management, 8.2.3.3-Clearance, 8.2.3.4-Fall-in Mitigation, 8.2.3.5-Substation Defensible Space, 8.2.3.6-High-Risk Species, 8.2.3.7-Fire-resilient Rights-of-Way, 8.2.4 Vegetation Management Enterprise System, 8.2.5-Quality Assurance and Quality Control for Vegetation Management, 8.2.6-Open Work Orders for Vegetation Management, and 8.2.7-Workforce Planning for Vegetation Management), which when added to the 41 initiatives tracked by SCE lead to a total of 51 initiative activities assessed by Energy Safety.

in the IE ARC.[56] In some cases, Energy Safety issued data requests to answer specific questions. If data request information is used in the assessment, a citation for the particular instance is provided. Finally, the Energy Safety SVM Audit and SVM Audit Report also contributed to Energy Safety's ARC assessment.[57] The information from each of these sources are summarized along with the final assessment of compliance for each initiative in the table in Appendix A.

5.2 Energy Safety Substantial Vegetation Management Audit

Public Utilities Code section 8386.3(c)(5) requires Energy Safety to perform an audit of the work performed by, or on behalf of, an electrical corporation with respect to the vegetation management requirements in its WMP.[58] Energy Safety refers to this audit as the SVM Audit. Pursuant to section 8386.3(c)(5), Energy Safety conducted an audit of SCE's work with respect to its vegetation management requirements for the 2023 compliance year.

On February 18, 2025, Energy Safety issued its SVM Audit for SCE.[59] The purpose of the SVM Audit was to assess whether SCE met its quantitative commitments and verifiable statements in its 2023 WMP related to vegetation management activities. In the SVM Audit, Energy Safety reviewed 13 vegetation management initiatives detailed in SCE's 2023 WMP and found that SCE did not perform all the work specified for three of 13 vegetation management initiatives. Energy Safety required SCE to provide a Corrective Action Plan response within 30 days from the issuance of the SVM Audit.[60]

On March 19, 2025, SCE submitted its Corrective Action Plan to Energy Safety.[61] Subsequently, Energy Safety issued a SVM Audit Report on June 13, 2025, which found that SCE substantively complied with all but two vegetation management initiatives.[62] The SVM Audit Report found that SCE substantially complied with a substantial portion of the vegetation management requirements in its 2023 WMP.[63]

The specific findings from Energy Safety's SVM Audit Report are detailed in Appendix B.

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[56] 2023 Q4 QDR, EC ARC, and IE ARC.
[57] SVM Audit Report.
[58] Pub. Util. Code § 8386.3(c)(5).
[59] SVM Audit.
[60] SVM Audit Report.
[61] SCE 2023 SVM Audit Corrective Action Plan.
[62] SVM Audit Report, page 5.
[63] SVM Audit Report, page 19.

5.3 SCE WMP Objective and Initiative Activity Attainment in 2023

Energy Safety assessed 51 wildfire mitigation initiatives from the 2023 WMP and found that five initiative activities (10%) were not completed. The five not attained initiative activities from SCE's 2023 WMP are: Undergrounding Overhead Conductor (SH-2), Rapid Earth Fault Current Limiter – Ground Fault Neutralizer (GFN) (SH-17), Inspection and Maintenance Tools (IN-8), Wood and Slash Management, and Vegetation Open Work Orders. A complete list of the not attained initiative activities is shown in Table 2. Financial and risk impacts of these missed initiatives are described in Sections 5.3.1 and 5.3.2.

Table 2. SCE Non-attainment of WMP Initiative Activities[64]

Not Attained SCE 2023 WMP Initiative	2023 WMP Initiative Activity Target	Actual Performance
Undergrounding Overhead Conductor 8.1.2.2 (SH-2)	Target: Convert 11 circuit miles of overhead conductor to underground conductor in SCE's HFRA.	Converted 5.39 circuit miles of overhead conductor to underground conductor in SCE's HFRA. SCE was unable to complete this activity due to the need to obtain agreement on amended easement language, and supply chain issues.[65]
Rapid Earth Fault Current Limiter (REFCL) Ground Fault Neutralizer (GFN) 8.1.2.6 (SH-17)	Target: Complete construction of GFN at two substations (Acton and Phelan).	Completed construction of one GFN. SCE was unable to complete this activity due to material supply issues.[66]

[64] 2023 WMP, pages 237-244.
[65] EC ARC, page 40.
[66] EC ARC, page 41.

Not Attained SCE 2023 WMP Initiative	2023 WMP Initiative Activity Target	Actual Performance
Inspection and Maintenance Tools 8.1.5 (IN-8)	Target: Complete detailed design to migrate the distribution ground inspection application to the single digital platform.	While proof-of-concept was completed in 2023, other aspects of the target were not.
Wood and slash management 8.2.3.2	Target: SCE's 2023 WMP stated reduction of downed wood and slash from Vegetation Management activities is incorporated into each Vegetation Management initiative.	Energy Safety's SVM Audit and SVM Audit Report determined that SCE did not demonstrate that all wood and slash debris from routine trimming and removal activities were cleared on the same day the work was performed.
Open Work Orders – Vegetation Management 8.2.6	Target: SCE's 2023 WMP stated that SCE would prioritize and endeavor to complete work orders within certain time frames based on the risk posed by observed conditions.	Energy Safety's SVM Audit and SVM Audit Report determined that SCE did not complete the required mitigation work within the timeframes necessary to reduce wildfire risk.

5.3.1 Budget Impact of Not Attained Initiatives

Planned and actual expenditures differed across the EC ARC, IE ARC, and Energy Safety's analysis. The EC ARC and IE ARC incorporated initiatives with and without quantitative targets in their budgets, while Energy Safety accounted only for initiatives with defined quantitative targets.[67] The EC ARC reported $1.53 billion (82%) spent of the $1.87 billion planned. The IE ARC reported $1.51 billion (81%) spent of the $1.87 billion planned. Energy Safety's analysis concluded that $1.38 billion (82%) was spent of the $1.68 billion planned.

The total amount budgeted for the five not attained initiative activities was $56 million,[68] or 3.3% of the approximate $1.68 billion allocated in the 2023 WMP budget. Of the 10 largest initiatives by budgeted amount, two were not attained and represented a budgeted amount

[67] EC ARC, Appendix A, pages 1-5; IE ARC, pages 186-190; and Appendix A.
[68] The total not attained initiative activities budget of $56 million comes from SH-2 at $28 million, SH-17 at $20 million, and IN-8 at $8 million. The remaining two initiatives did not have a budget associated.

of $48.2 million, or 3.2%, of the $1.53 billion allocated for these 10 initiatives in 2023. These two initiatives were for Undergrounding Overhead Conductors (SH-2) and Rapid Earth Fault Current Limiters – Ground Fault Neutralizer (SH-17).

5.3.2 Risk Impact of Not Attained Initiatives

Energy Safety's WMP Technical Guidelines requires an electrical corporation to estimate the relative risk impact of its mitigation activities by subtracting the remaining risk after the mitigation activity is completed from the risk that existed before the mitigation activity occurred. The electrical corporation is then to divide the risk difference by the risk before the mitigation activity, and finally, multiply the divided number by 100.[69]

When accounting for the amount of risk targeted for removal by an initiative, SCE's five missed initiatives impacted the planned risk to be removed (Table 3). The 2023 WMP does not define the total risk that applies to the stated percentage risk reduction. For example, the 2023 WMP does not clarify if the planned risk reduction of 97% due to undergrounding of electric lines would lead to a 97% reduction of total system-wide risk, a 97% reduction of total risk at a given circuit or region, or a 97% reduction of some other form of spatial or temporal risk.

As a result, this ARC does not assume the nature of the estimated risk that was to be reduced by these not attained initiatives. Rather, Energy Safety observes that the not attained initiatives did not achieve their intended risk reduction and calculates the actual reduction in risk using the percentage of completed work as a proxy for actual reduced risk. In particular, the missed undergrounding initiative (SH-2) shows that less than half of the intended risk was achieved for one of the large budget initiatives.

Table 3: Not Attained 2023 WMP Initiatives - Percentage Risk Impact Removed

Not Attained 2023 WMP Initiative Name and Tracking IDs	% Risk Impact 2023 WMP[70]	% of WMP Initiative Complete	% Risk Removed
Undergrounding Overhead Conductor 8.1.2.2 (SH-2)	97%	49%	47.5%

[69] WMP Technical Guidelines, page 71.
[70] 2023 WMP, pages 145-148.

Not Attained 2023 WMP Initiative Name and Tracking IDs	% Risk Impact 2023 WMP[70]	% of WMP Initiative Complete	% Risk Removed
Rapid Earth Fault Current Limiter – Ground Fault Neutralizer 8.1.2.6 (SH-17)	47%	90%	42.3%
Inspection and Maintenance Tools 8.1.5 (IN-8)	N/A	0%	N/A
Wood and Slash Management 8.2.3.2	N/A	N/A	N/A
Open Work Orders – Vegetation Management 8.2.6	N/A	N/A	N/A

SCE had identified undergrounding and a combination of Rapid Earth Fault Current Limiter (REFCL) with covered conductor as its two mitigations to use in its Severe Risk Areas,[71] its highest risk tranche. Its inability to complete SH-2 and SH-17 during 2023 therefore meant that SCE did not reduce half of the risk targeted by these two initiatives in its Severe Risk Areas in 2023.

6. Ignition Risk, Outcome Metrics, and Inspections

Energy Safety assessed the performance of SCE's infrastructure relative to its wildfire risk, as measured by changes in the occurrence of events that correlate to wildfire risk.

Energy Safety requires electrical corporations to report data, such as ignitions, that help Energy Safety assess whether an electrical corporation reduced its wildfire risk while also reducing its reliance on PSPS events. For 2023, Energy Safety assessed each electrical corporation's infrastructure performance for the calendar years 2016 through 2023 with particular attention on the 2023 outcomes.

[71] 2023 WMP, page 205.

The collection of metrics assessed are grouped into two categories: ignition risk metrics and outcome metrics. A list of all the metrics in each category is described fully in their respective following sections. For these sections, Energy Safety relied on data reported in the third quarter 2022 QDR for the 2016 through 2021 values, the fourth quarter 2023 QDR for the 2022 values, and a response to data request DR-284 for the 2023 values.[72,73]

Normalizing Metrics

For applicable performance metrics, the normalizing metrics Energy Safety uses are: "Overhead Circuit Miles" (OCM), "High Wind Warning Overhead Circuit Mile Days" (HWWOCMD), and "Red Flag Warning Overhead Circuit Mile Days" (RFWOCMD). To see the values for each year used, see Appendix C, Figure 19 through Figure 27.

Energy Safety uses these normalizing metrics to provide a more nuanced interpretation of wildfire risk outcomes. For example, the outcome metric of "acres burned" may be impacted by the presence of hot, dry winds and, thus, this metric is presented in both raw counts and normalized by RFWOCMD. In this way, the acres burned are presented accounting for year-by-year variances in weather conditions that may influence the outcome.

Findings

Ignition risk and outcomes metrics findings include:

- There was a year over year increase in ignition counts from 2016 to 2021, but a decline in ignitions from 2021 levels in 2022 and 2023.
- Ignition events were primarily caused by equipment or facility failure, and contact from objects, for the years 2016 through 2023.
- Wire down events were generally constant for the years 2016 to 2023.
- Unplanned outages increased until 2019 at which point they began to decline through 2023.
- The primary drivers for outage events were equipment or facility failure or damage, in addition to risk events categorized as "other".
- There were zero acres burned, damaged or destroyed buildings, or value of assets destroyed in 2023.

[72] The format of the required data reporting for all electrical corporations changed near the end of 2022, thus, all data for 2016-2021 were obtained from the third quarter 2022 QDR (old format). Data for 2022 and forward were obtained from the fourth quarter 2023 QDR (new format) of each year as well as the DR-284 Response.
[73] 2022 Q3 QDR, 2023 Q4 QDR, and DR-284 Response.

6.1 Ignition Risk Metrics

Energy Safety reviewed the following metrics associated with ignition risk:

1. *Ignitions* – Incidents in which electrical corporation infrastructure was involved in an ignition,
2. *Wire Down Events* – Incidents in which overhead electrical lines fall to the ground, land on objects, or become disconnected from their moors,
3. *Unplanned Outages* – All unplanned outages experienced, and
4. *PSPS Events* – Planned outages called PSPS events.

All ignitions, wires down, and unplanned outage results are broken out by high fire threat district (HFTD) designations of SCE's service territory: Tier 3 is the highest threat level, Tier 2 is the next highest, and non-HFTD is the lowest. These designations are defined by the California Public Utilities Commission.[74] For a sense of scale, the percentage of OCM for each territory type is as follows: non-HFTD = 72%, HFTD Tier 2 = 12%, and HFTD Tier 3 = 16%.[75]

6.1.1 Ignition Data Analysis

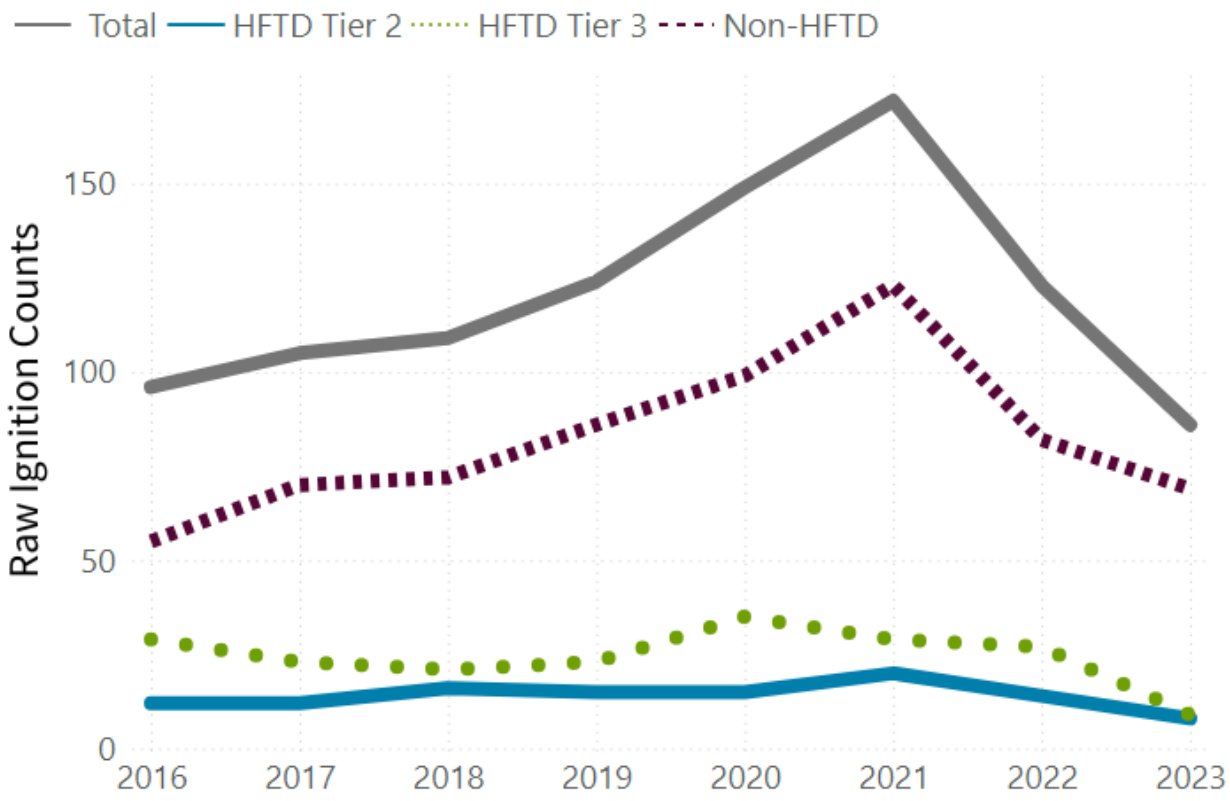
The ignition data analysis section examines ignitions stemming from distribution and transmission lines with particular attention paid to HFTD Tier 2 and HFTD Tier 3 areas.[76] In addition to showing raw ignition counts, ignitions are normalized by OCM, HWWOCMD, and RFWOCMD.

[74] CPUC HFTD Designation.
[75] 2023 Q4 QDR, Table 7; DR 284.
[76] 2022 Q3 QDR, Table 7.2.; 2023 Q4 QDR, Table 6.

Raw Ignition Counts

Raw ignitions increased from 2016 to 2021 before they decreased by 50% between 2021 and 2023. Non-HFTD area raw ignition events made up most of the total (Figure 1).

Figure 1. SCE Ignition Counts (2016-2023) by HFTD Tier

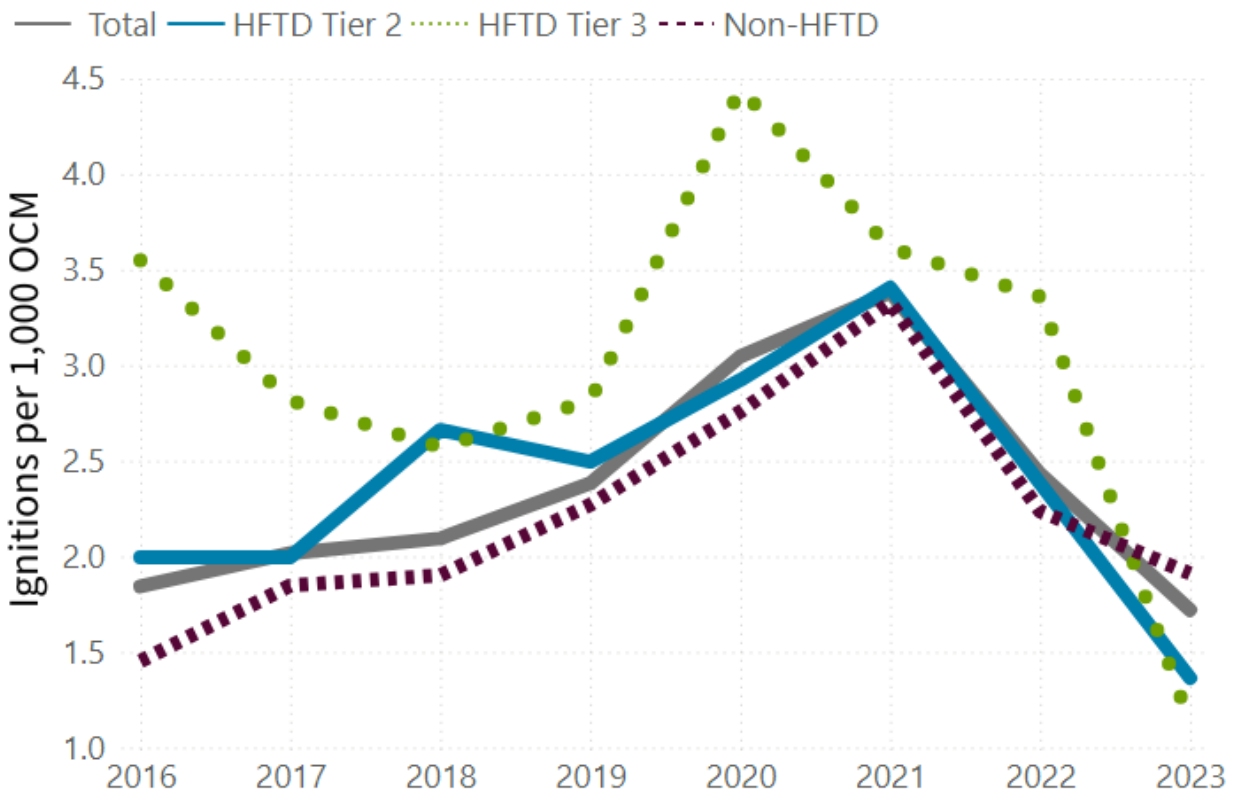


Ignitions Normalized by Overhead Circuit Miles

To account for concurrent grid expansion within SCE's territory and allow for comparisons with other utilities, ignitions normalized by overhead circuit miles (OCM) are provided as a rate of ignitions per 1,000 miles and delineated by HFTD Tier 3, HFTD Tier 2, and Non-HFTD Areas.

Although raw ignitions in the figure above show HFTD Tier 3 with the lowest total number of ignitions, when expressed as a rate per OCM, HFTD Tier 3 generally had the most ignitions per mile (Figure 2). However, in 2023, the ignition rate for HFTD Tier 3 was below HFTD Tier 2 and Non-HFTD. Note in the figure that when ignitions are expressed as a rate, the Total line becomes not a sum of the tiers but a weighted average.

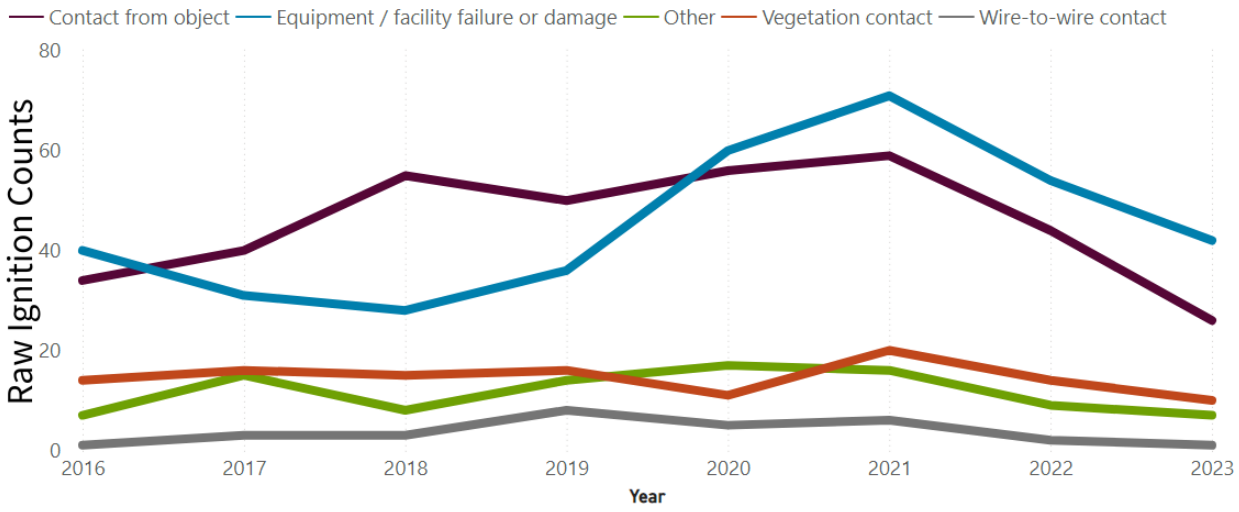
Figure 2. SCE Ignitions Normalized by OCM (2016-2023) by HFTD Tier



Ignitions Delineated by Risk Driver

SCE raw ignition counts are shown delineated by risk drivers to indicate which causes are the most common. Ignition events were primarily caused by equipment or facility failure, and contact from objects, for the years 2016 through 2023 (Figure 3). Wire to wire contact caused the fewest ignitions.

Figure 3. SCE Ignition Counts (2016-2023) by Risk Driver



Ignitions by HFTD Tier Normalized by High Wind Warning Overhead Circuit Mile Days and Red Flag Warning Overhead Circuit Mile Days

To see ignitions by HFTD tier normalized by HWWOCMD and RFWOCMD, see Appendix C (Figure 22 and Figure 23).

6.1.2 Wire Down Events Data Analysis

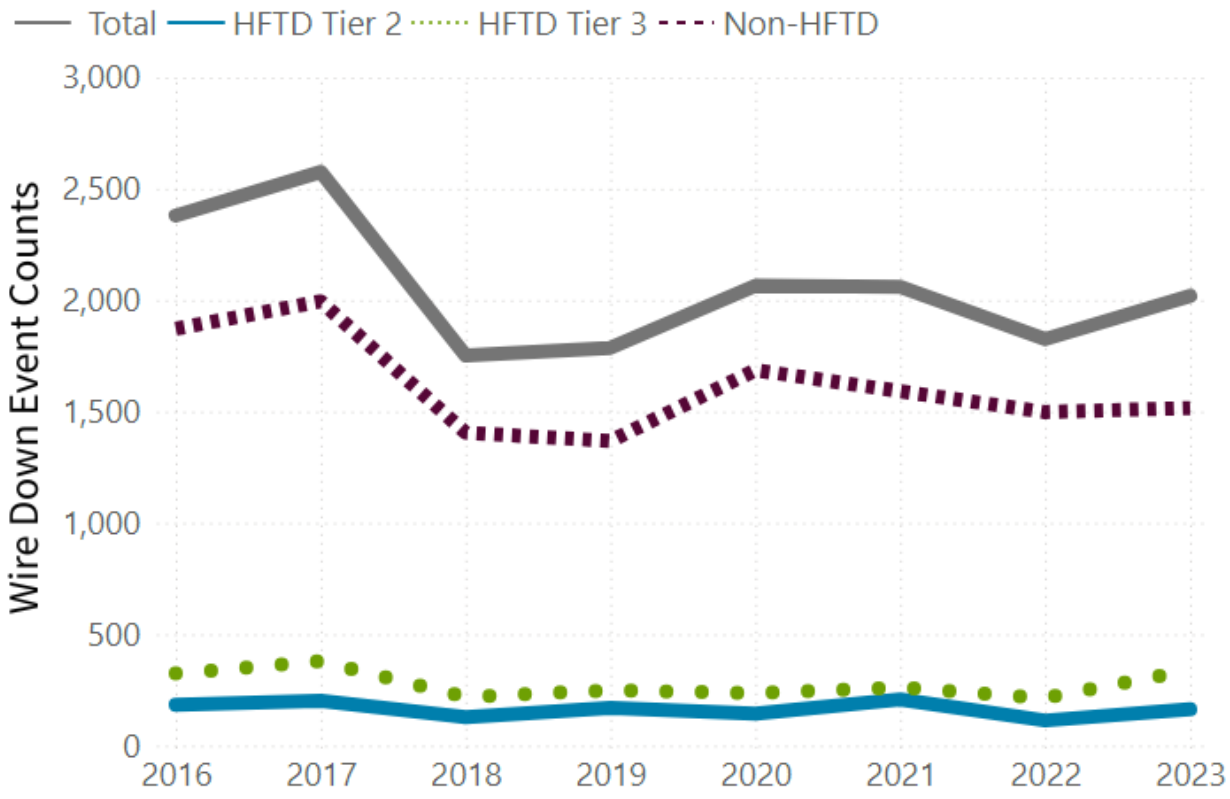
Wire down events are wildfire risks where a wire is touching the ground, touching an object, or has become disconnected from its mooring. This type of event poses a risk of ignition or a danger to people if that wire is also energized with electricity. The data source for wire down information is the QDRs.[77]

[77] 2022 Q3 QDR, Table 7.1; 2023 Q4 QDR, Table 5.

Raw Wire Down Events

The wire down event counts for SCE exhibited fluctuations between 2016 and 2023 with no clear trend up or down. The largest number of wire down events were consistently in the non-HFTD area, which is the least risky with respect to wildfires (Figure 4). Interestingly, the wire down events in HFTD Tier 2 were consistently lower than in Tier 3.

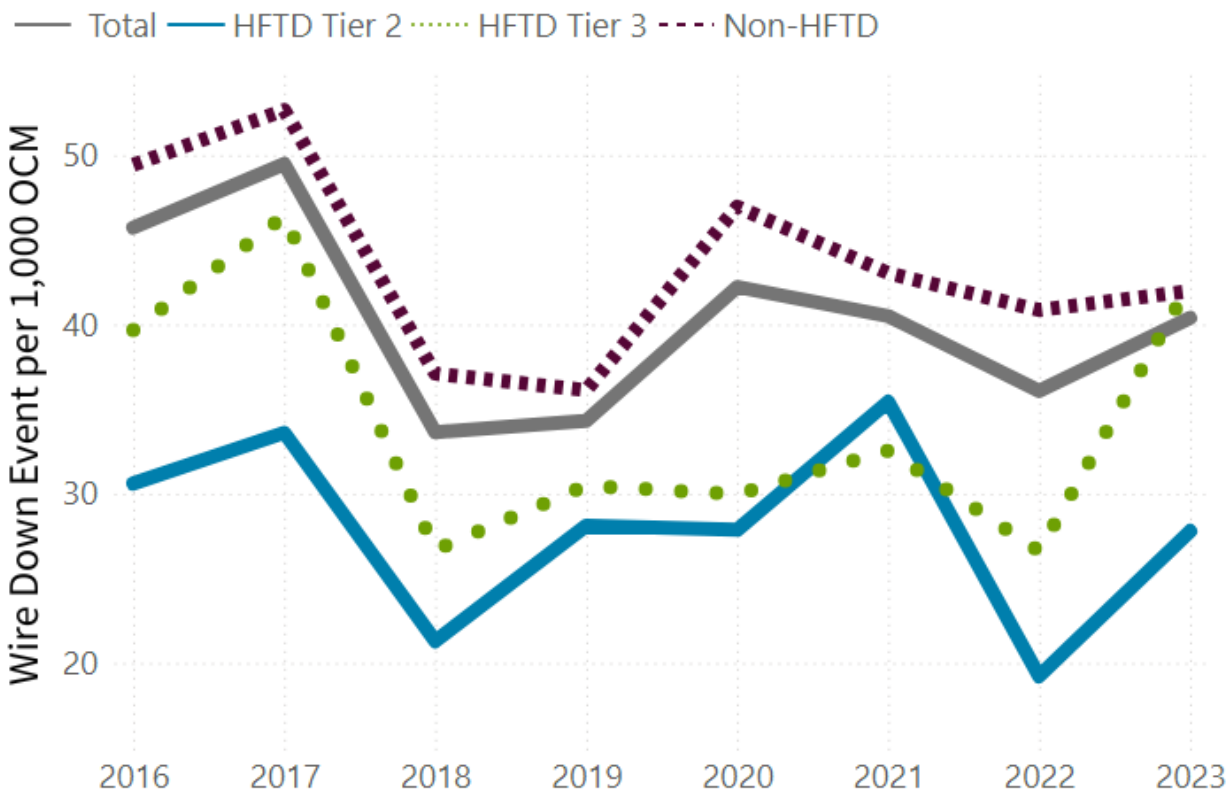
Figure 4. SCE Wire Down Event Counts (2016-2023) by HFTD Tier



Wire Down Events Normalized by Overhead Circuit Miles

Even when accounting for OCMs, the HFTD Tier 3 wire down rates persisted above those of Tier 2 for the years 2016 through 2023 (Figure 5). In fact, in 2023, the normalized wire down rates for the HFTD Tier 3 jumped up above the weighted average depicted by the Total line in the figure.

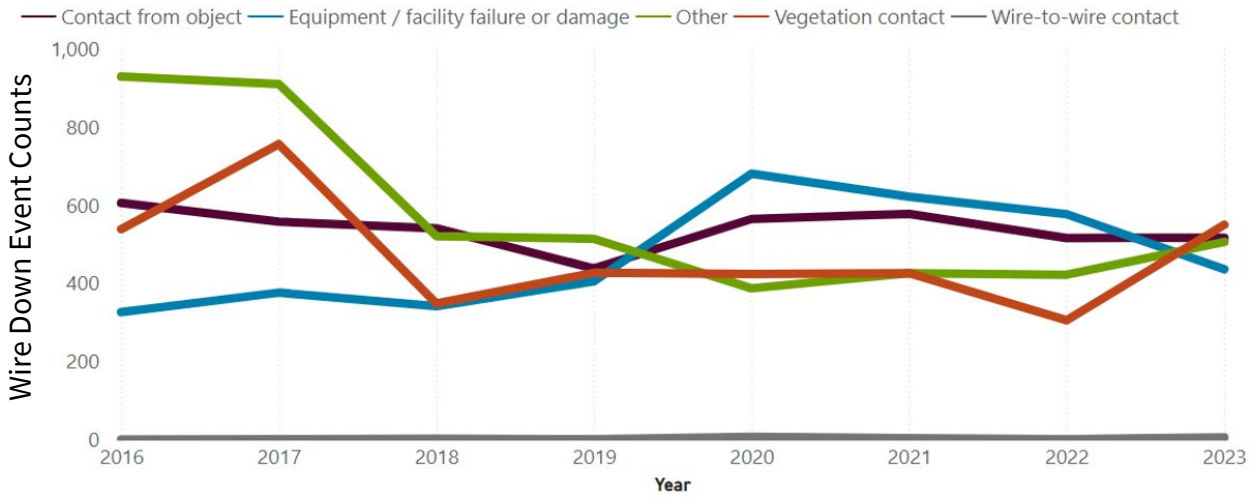
Figure 5. SCE Wire Down Events Normalized by OCM (2016-2023) by HFTD Tier



Wire Down Events Delineated by Risk Driver

SCE raw wire down events are shown delineated by risk drivers to indicate which causes are the most common. Although wire down events were dominated by "other" causes from 2016 to 2017, equipment failure or damage was the leading cause from 2020 through 2022 (Figure 6).

Figure 6. SCE Wire Down Events Delineated by Risk Driver



Wire Down Events Normalized by High Wind Warning Overhead Circuit Mile Days and Red Flag Warning Overhead Circuit Mile Days

Please see Appendix C (Figure 24 and Figure 25) for wire down events normalized by HWWOCMD and RFWOCMD.

6.1.3 Outage Event Data Analysis

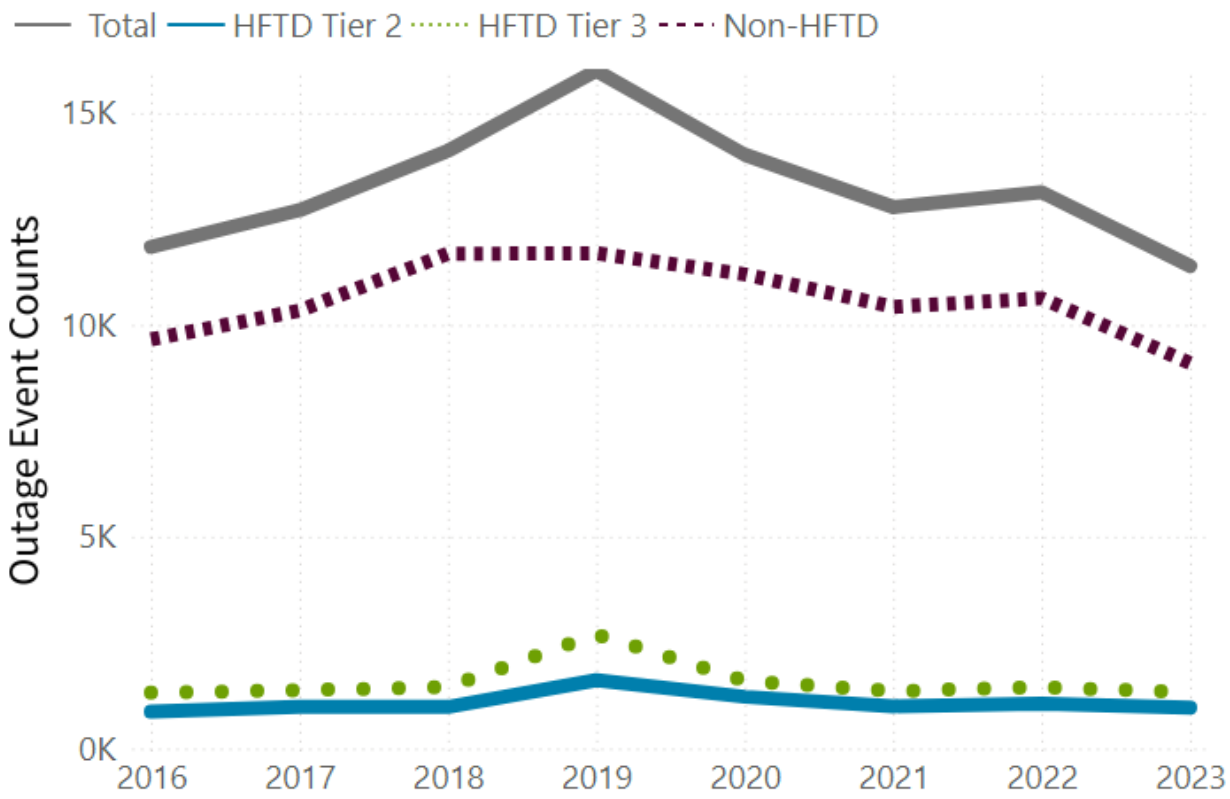
Power outages (outages) are unplanned power outage events (i.e., do not include PSPS events) tabulated by circuits and not by number of customers impacted. Outage events are tracked as outcomes that both may cause ignitions and impact a customer's quality of life. The data source for outage event information is the QDRs.[78]

[78] 2022 Q3 QDR, Table 7.1; 2023 Q4 QDR, Table 5.

Raw Outage Event Counts

Total unplanned outage event counts increased from 2016 to 2019 before generally decreasing from 2020 through 2023. Non-HFTD area outage events made up most of the total (Figure 7). The HFTD Tier 2 outage event counts were consistently less than those of Tier 3.

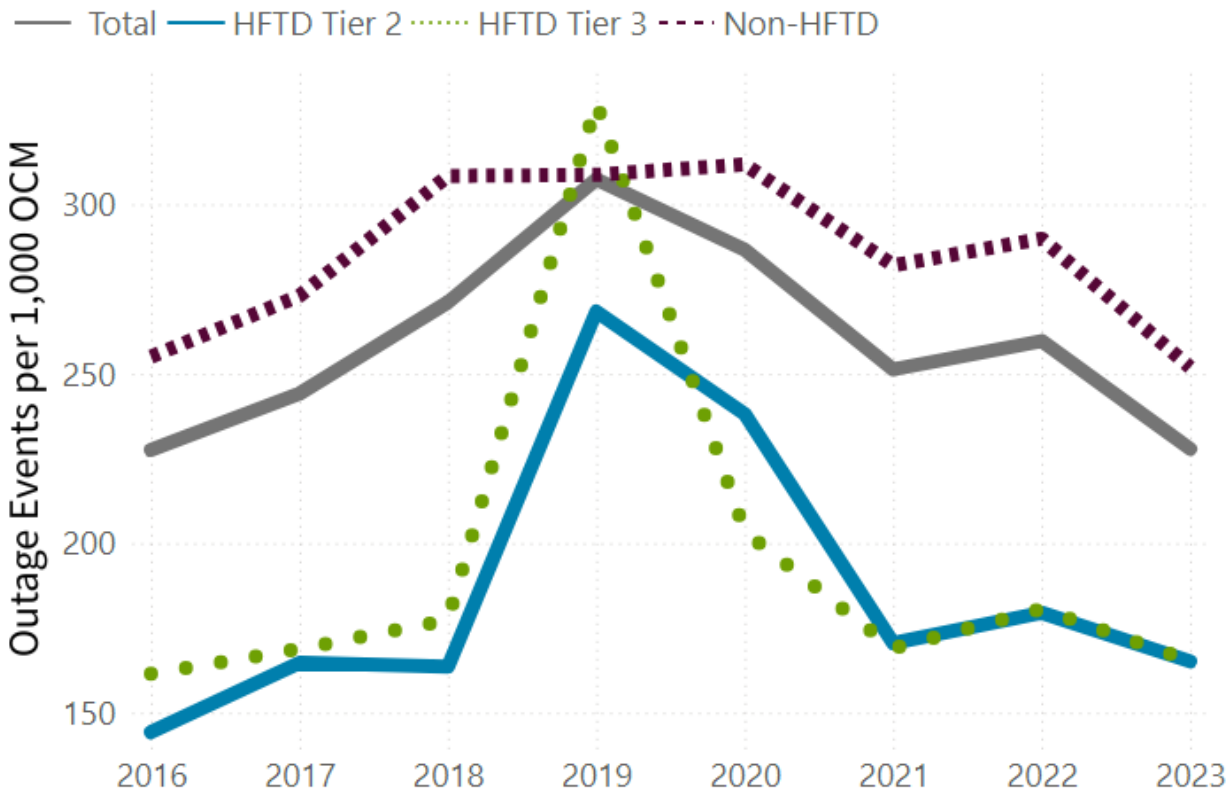
Figure 7. SCE Outage Events (2016-2023) by HFTD Tier



Outage Events Normalized by Overhead Circuit Miles

To see if the high rate of outage events in non-HFTD areas is explained by the larger number of line miles in this area, outage events are normalized by OCM (Figure 8). When accounting for the number of line-miles in each area, the non-HFTD area continued to have a higher rate of outages than HFTD Tier 2 and HFTD Tier 3 areas. Adjusting by the number of OCM kept the HFTD Tier 3 outage event rate above or equal to that of Tier 2.

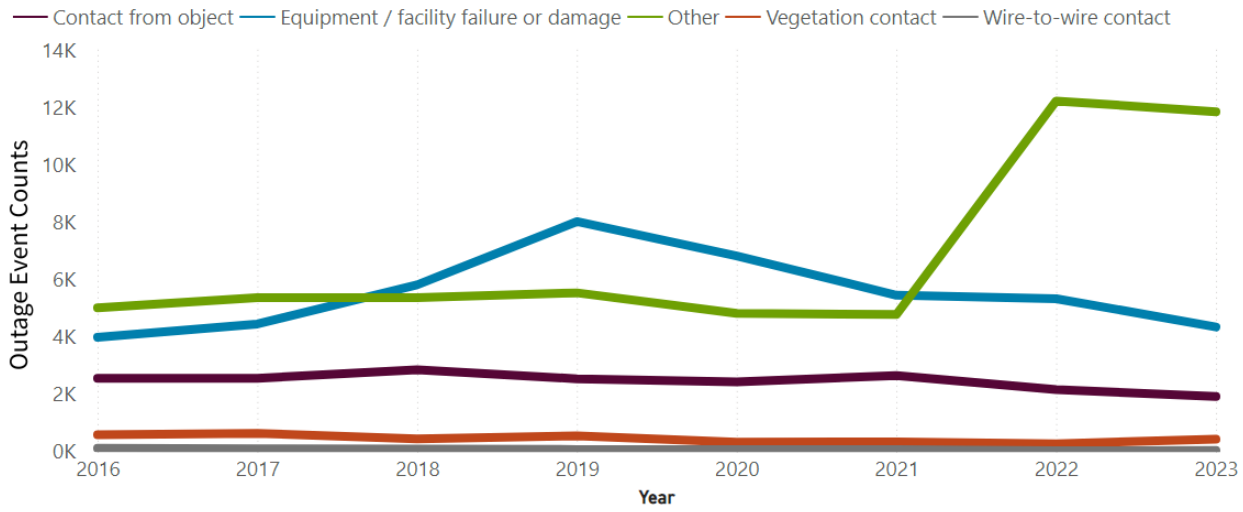
Figure 8. SCE Outage Events Normalized by OCM (2016-2023) by HFTD Tier



Outage Events Delineated by Risk Driver

To show which causes were the largest contributors to unplanned outage events, the raw outage event counts are broken out by risk driver and shown relative to each other (Figure 9). SCE's outage events were primarily caused by 1) risk drivers categorized as "other", and 2) equipment or facility failure or damage. The drivers that contributed to outage events the least were 1) wire to wire contact, and 2) vegetation contact. The category of "other" contains several sub-categories such as emergency repairs, fire, lightning, government requests, and vandalism. In this case, the largest contributor to the "other" causes, was emergency repairs.

Figure 9. SCE Outage Events (2016-2023) by Risk Driver



Outage Events Normalized by High Wind Warning Overhead Circuit Mile Days and Red Flag Warning Overhead Circuit Mile Days

Please see Appendix C (Figure 26 and Figure 27) for outage events normalized by HWWOCMD and RFWOCMD.

6.1.4 Public Safety Power Shutoff Event Data Analysis

PSPS events are planned outages used as a wildfire mitigation tool during extreme fire conditions such as hot, dry, and windy days. While useful as a wildfire mitigation measure, PSPS events carry their own risks and adverse impacts on customers – particularly vulnerable customers who rely on electricity. As such, electrical corporations take mitigating actions to reduce the frequency, scope, duration, and impacts of PSPS events.

As PSPS events are typically implemented during extreme fire conditions, the PSPS outcomes are presented first in raw count form and then normalized by RFWOCMD to account for variances in weather across years.

The following five PSPS event parameters are presented by year and comprise the PSPS event data analysis:

- *Frequency* is measured as the number or count of all PSPS events,
- *Scope* is measured as the total number of utility circuits impacted because of all PSPS events,
- *Duration* is measured by the total number of customer-hours because of all PSPS events,
- *Impacts - Customers* is measured as the total number of customers affected by all PSPS events, and
- *Impacts - Critical Infrastructure* is measured as the total number of critical infrastructure hours affected by all PSPS events.

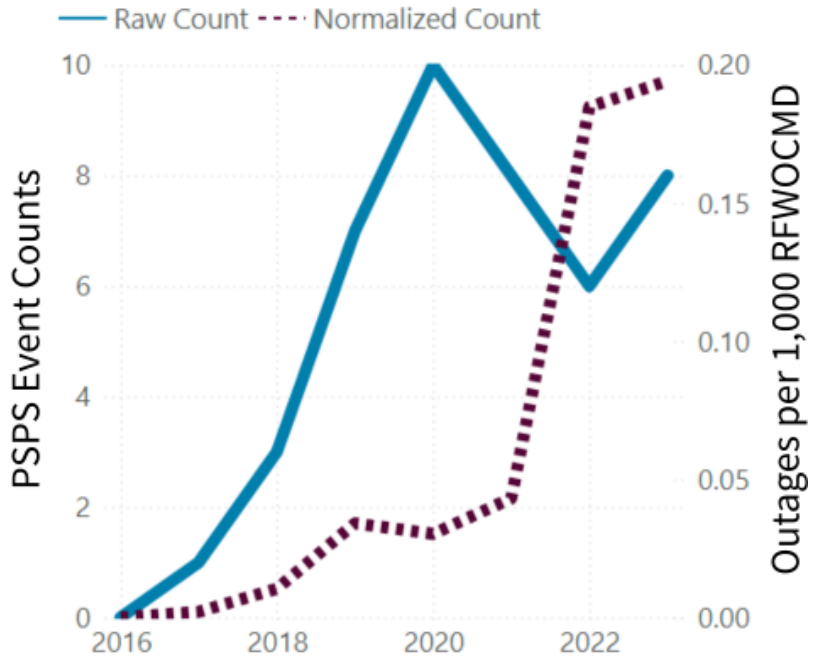
The data source for PSPS events information is the QDRs.[79]

[79] 2022 Q3 QDR, Table 11; 2023 Q4 QDR, Table 10.

Frequency of PSPS Events

The raw counts of PSPS events exhibited increases starting in 2016 through 2020 before fluctuating through 2023 (Figure 10). PSPS events adjusted for weather exhibited a slow and then rapid increase from 2016 through 2023.

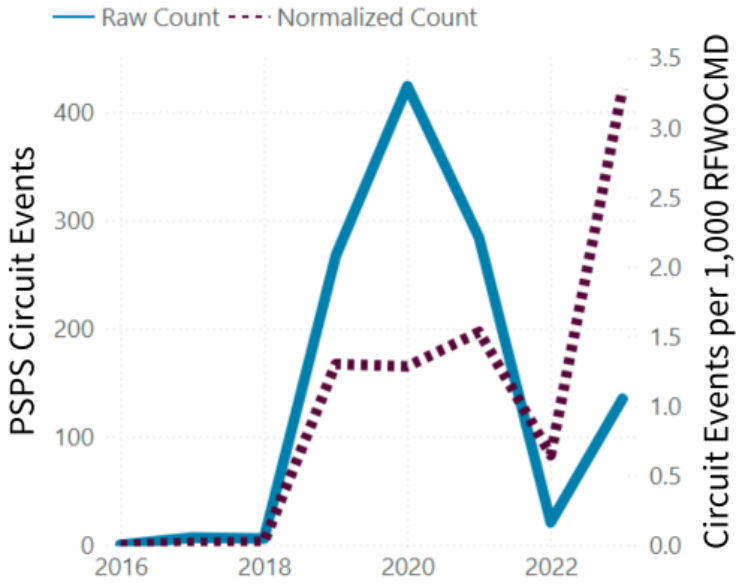
Figure 10. SCE PSPS Events Frequency and Frequency Normalized by RFWOCMD (2016-2023)



Scope of PSPS Events

The raw number of utility circuits impacted by PSPS events peaked in 2020 before decreasing through 2022. In 2023, the number of utility circuits impacted increased to about 25% of the 2020 value. When accounting for yearly weather variances, there was an increase in PSPS events starting in 2018 that reached its highest point in 2023 (Figure 11).

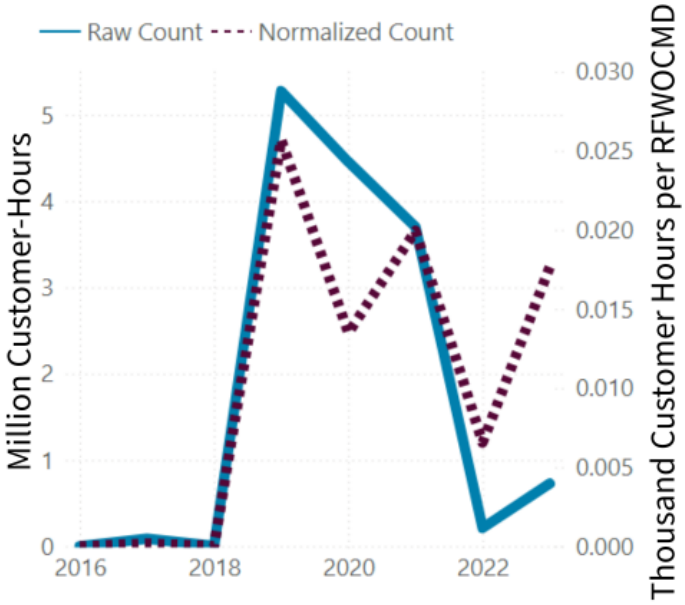
Figure 11. SCE PSPS Event Scope and Event Scope Normalized by RFWOCMD (2016-2023)



Duration of PSPS Events

The total raw number of customer-hours impacted by all PSPS events for each year showed a high point in 2019 before they decreased through 2022. Customer-hours impacted then increased between 2022 and 2023 (Figure 12). Similarly, when accounting for yearly changes in weather, the normalized customer-hours showed a high point in 2019.

Figure 12. SCE PSPS Event Duration and Duration Normalized by RFWOCMD (2016-2023)



Impacts of PSPS Events

The impacts of PSPS events on customers peaked in 2020 before they decreased through 2022. In 2023 the customer impacts increased (Figure 12). For the event impacts on critical infrastructure, the pattern is similar but peaked in 2019 (Figure 13). When accounting for yearly changes in weather, the normalized impacts of PSPS event impacts for both residents and structures fluctuated between 2019 and 2023 (Figure 12 and Figure 13).

Figure 13. SCE PSPS Event Impacts on Customers and Event Impacts on Customers Normalized by RFWOCMD (2016-2023)

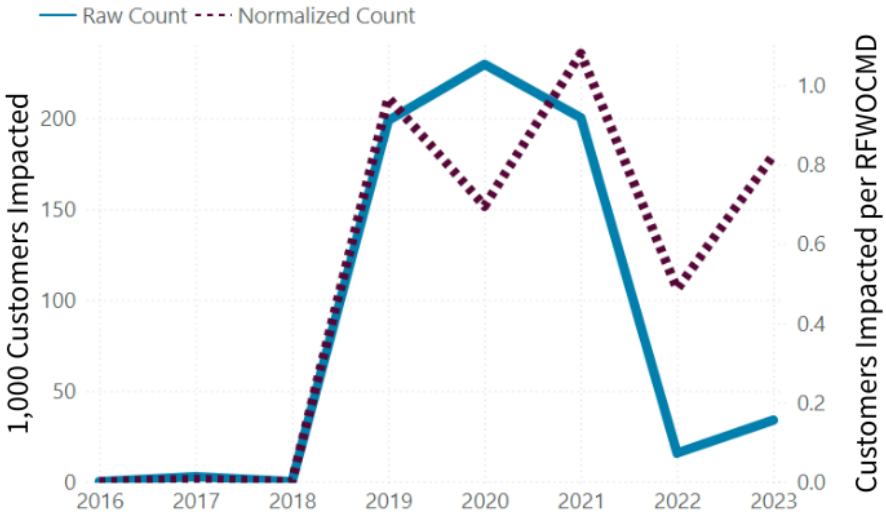
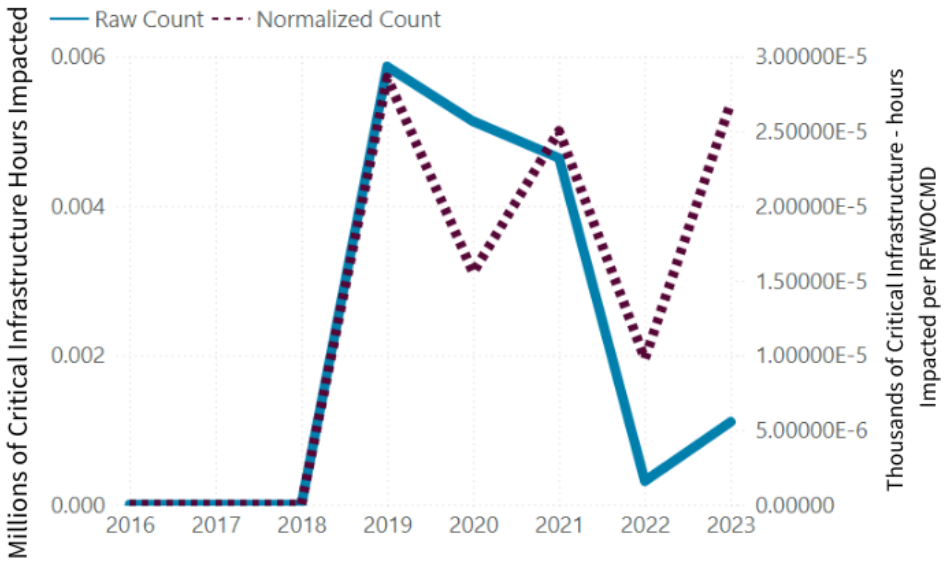


Figure 14. SCE PSPS Event Impacts on Critical Infrastructure and Event Impacts on Critical Infrastructure Normalized by RFWOCMD (2016-2023)



6.2 Outcome Metrics

This section presents outcome metrics on electrical corporation-related wildfires including:

1. *Acres burned* – The total number of acres burned due to electrical corporation caused fires,
2. *Structures damaged/destroyed* - The total number of structures damaged or destroyed due to electrical corporation caused fires,
3. *Injuries/fatalities* - The total number of injuries and fatalities due to electrical corporation caused fires, and
4. *Value of assets destroyed* - The total value of assets destroyed due to electrical corporation caused fires.

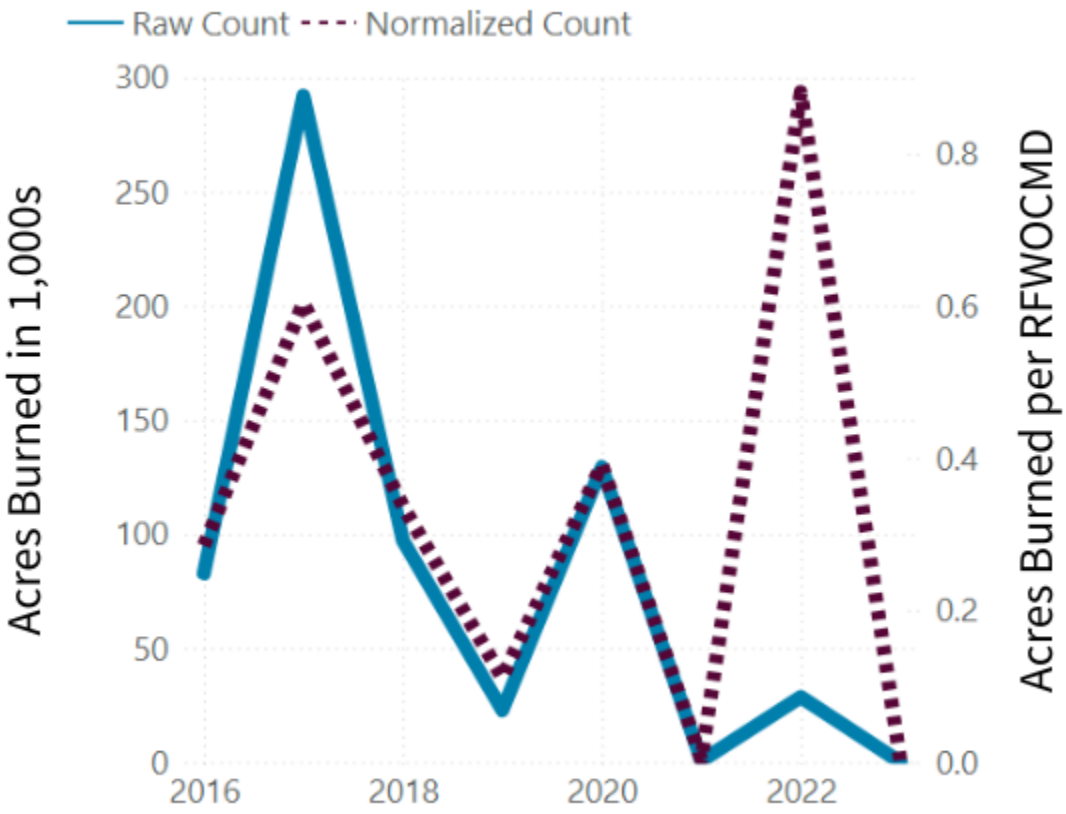
The data source for outcomes metrics information is the QDRs.[80]

[80] 2022 Q3 QDR, Table 2; 2023 Q4 QDR, Table 2.

Acres Burned

The total raw number of acres burned by SCE-ignited wildfires was the highest in 2017 but generally decreased after with values that reached zero for 2021 and 2023 (Figure 15). When accounting for yearly changes in weather, the acres burned metric was variable over time.

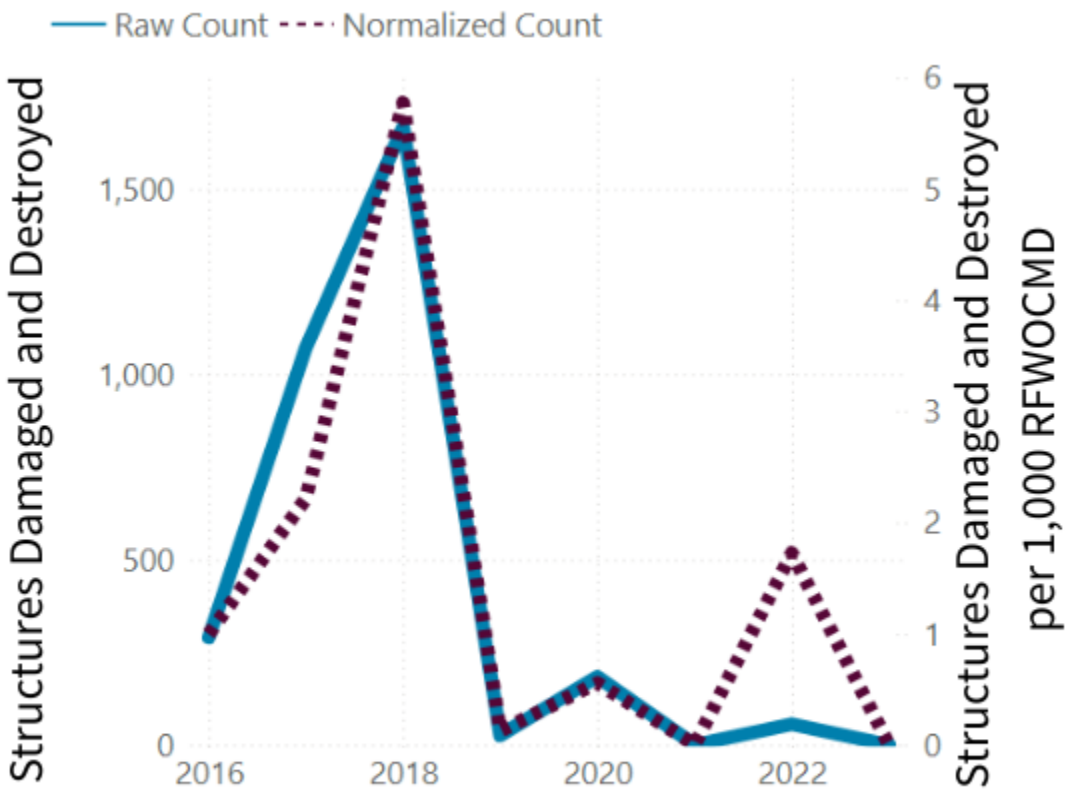
Figure 15. SCE Total Acres Burned and Total Acres Burned Normalized by RFWOCMD (2016-2023)



Structures Damaged or Destroyed

The raw count of structures damaged or destroyed due to wildfires ignited by SCE increased between 2016 and 2018, followed by a general decline from 2019 through 2023. Similar to acres burned, there were zero structures damaged or destroyed in 2021 and 2023 (Figure 16). When accounting for variances in yearly weather by normalizing with RFWOCMD, structures damaged or destroyed were variable over time.

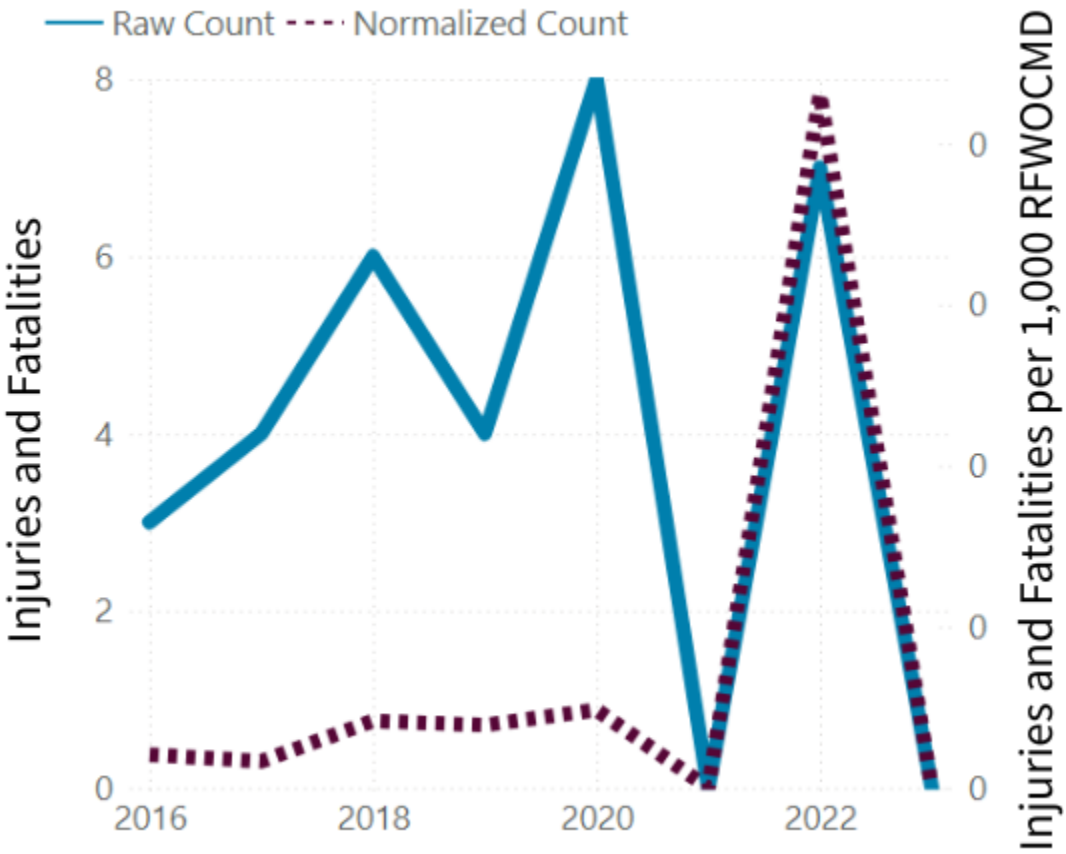
Figure 16. SCE Structures Damaged or Destroyed and Structures Damaged or Destroyed Normalized by RFWOCMD (2016-2023)



Injuries and Fatalities

Injuries and fatalities due to wildfires caused by SCE are variable over time (Figure 17). It should be noted in the figure that the y-axis values for injuries and fatalities per 1,000 RFWOCMD all have very small values, and therefore the right-hand y-axis for the normalized metric shows only zeros. The actual values for injuries and fatalities per 1,000 RFWOCMDs equate to the following: 0.010305 (2016), 0.008273 (2017), 0.020795 (2018), 0.019486 (2019), 0.024216 (2020), zero (2021), 0.215643 (2022), and zero (2023).

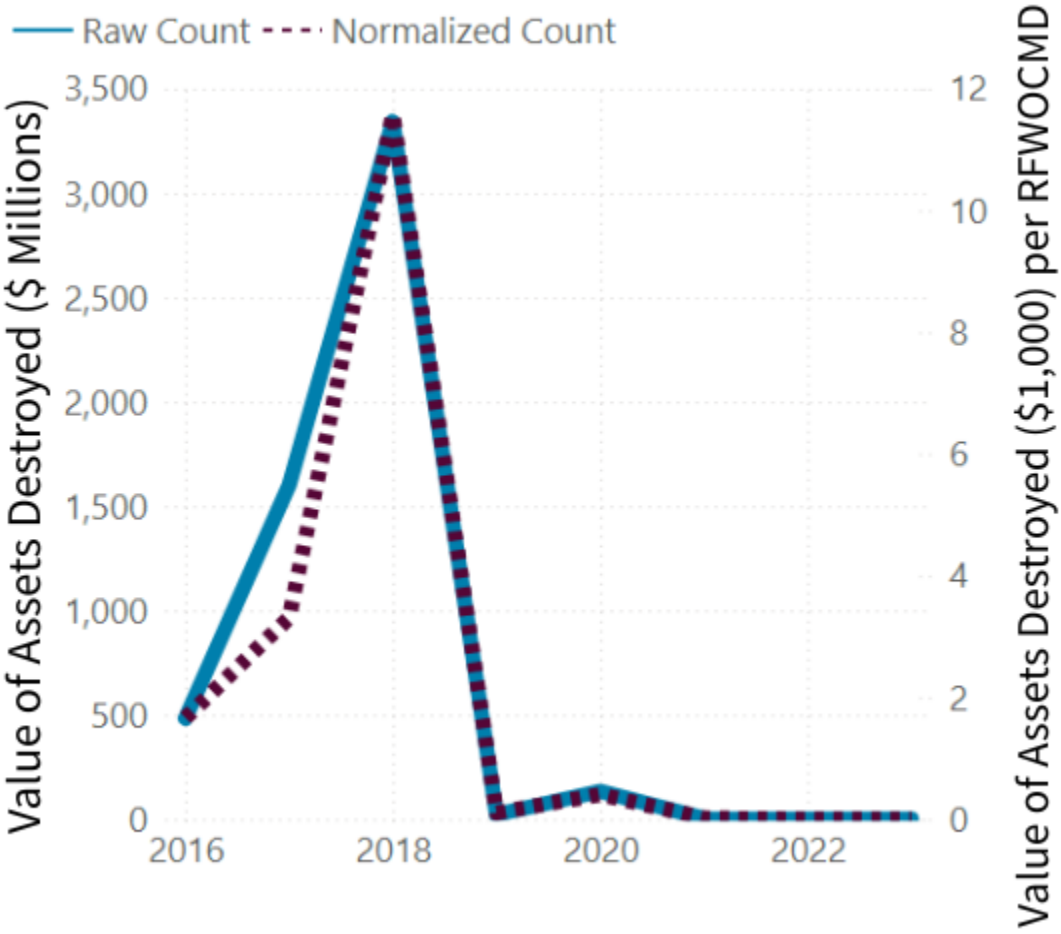
Figure 17. SCE Injuries and Fatalities and Injuries and Fatalities Normalized by RFWOCMD (2016-2023)



Value of Destroyed Assets

The raw value of assets destroyed by SCE-ignited wildfires peaked in 2018 before decreasing from 2019 through 2023, when there were no reported assets destroyed (Figure 18). Similarly, the weather adjusted values mirror the raw count's pattern.

Figure 18 17. SCE Value of Destroyed Assets and Value of Destroyed Assets Normalized by RFWOCMD (2016-2023)



6.3 Energy Safety Field Inspection Analysis

Energy Safety performs inspections utilizing an electrical corporation's initiative activity data applicable to the WMP compliance year. Energy Safety conducts two types of inspections: 1) inspections of grid hardening and other work related to WMP initiatives related to physical infrastructure, and 2) inspections of general wildfire safety (GWS) conditions at an inspection site. The second category of general wildfire safety conditions is not strictly related to WMP

initiatives, and these inspections are additional to Energy Safety's WMP initiative-related inspection work.[81]

For the 2023 compliance period, Energy Safety conducted 7,470 GWS inspection activities and 1,527 WMP inspection activities in SCE's territory. No Notices of Violation or Notices of Defect were issued to SCE in 2023.

6.4 Energy Safety Analysis of Reporting Accuracy and Completeness

Reports required by Public Utilities Code section 8386 are intended to inform Energy Safety of electrical corporations' compliance with its wildfire mitigation plan initiative activities. This section considers whether SCE exhibited issues related to its execution, management, or documentation in the implementation of its 2023 WMP. To accomplish this, Energy Safety undertook a holistic assessment of all relevant information sources and assessments, including field verifications, for any systemic failings that may have hindered SCE's ability to reduce the risk of igniting a catastrophic wildfire.

Energy Safety's assessment of SCE's documentation and reporting in 2023 found examples of cases where data on targets and actual attainments were reported inconsistently. The QDR and EC ARC reported inconsistent attainment of target values for 11 of the 51 WMP initiatives assessed by Energy Safety. Energy Safety's assessment of all the initiatives by data source can be found in Appendix A.

Taken together, this analysis shows that SCE must continue to improve the accuracy of its WMP implementation documenting practices. Energy Safety will monitor SCE's reporting and expects improvements regarding the accuracy of SCE's documentation and tracking processes going forward.

[81] If Energy Safety observes a general wildfire safety concern during an inspection activity, then that is recorded as a "Wildfire Safety Concern." Or as it was known prior to 2024, a "defect." If Energy Safety observes noncompliance with a WMP initiative during an inspection activity that an electrical corporation claimed to have occurred at a site, then that is recorded as a "violation." For example, if Energy Safety is inspecting a particular utility pole and looking for eight different conditions associated with a WMP initiative, then that would count as eight WMP inspection activities. If a general wildfire safety inspection occurs at the same time at that utility pole, and 20 general wildfire safety concerns are assessed, then that would count as 20 general wildfire safety inspection activities. In this example, a single utility pole inspection would lead to a total of 28 inspection activities.

7. Conclusion

Energy Safety makes the following observations and recommendations regarding the SCE's execution of its WMP initiative activities and the performance of its infrastructure relative to its wildfire risk in 2023.

SCE completed the majority, 46 of 51 (or 90%), of its 2023 WMP initiatives in 2023. However, SCE failed to meet its commitments for five of its WMP initiatives, including two of the 10 initiatives with the largest planned expenditure. One of the missed initiatives of note is the undergrounding effort that completed only 5.4 circuit miles, which is less than half of the circuit miles planned. As both undergrounding and REFCL were integral to SCE's risk mitigation strategy in its Severe Risk Areas, SCE's inability to complete this work meant that SCE did not reduce half of the risk targeted by these two initiatives in its Severe Risk Areas in 2023.

The total amount budgeted for the five not attained initiative activities was $56 million, or 3.3% of the approximate $1.68 billion allocated in the 2023 WMP budget. Of the 10 largest initiatives by budgeted amount, two were not attained and represented a budgeted amount of $48.2 million, or 3.2%, of the $1.53 billion allocated for these 10 initiatives in 2023. In consideration of the overall 2023 WMP budget, SCE spent below the planned amounts on its 2023 WMP initiatives by $296.2 million, or 18% of the overall budget.

Energy Safety did not find any systemic issues that hindered SCE's ability to adequately implement its WMP in 2023. However, Energy Safety's assessment of SCE's documentation and reporting in 2023 found examples of cases where data on targets and actual attainments were reported inconsistently.

Energy Safety acknowledges that in 2023 SCE undertook efforts to reduce its wildfire risk, and in many instances achieved its WMP initiative activity targets.

In this report, Energy Safety has identified areas for improvement and continued learning by SCE. Energy Safety will continue to monitor SCE's implementation of its ongoing wildfire mitigation activities and compel SCE to improve its ability to eliminate utility-caused catastrophic wildfires in California.

8. References

Table 4. Full References for Citations

Citation	Reference
2023-2025 Base WMP	Southern California Edison Company, 2023-2025 Wildfire Mitigation Plan, Published October 26, 2023, URL: (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=55866&shareable=true).
2022 Q3 QDR	Southern California Edison Company, 2022-11-01_SCE-2022_Q3-QDR_R0, Published November 11, 2022, URL: (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53167&shareable=true).
2023 Q4 QDR	Southern California Edison Company, Q4_2023_NonSpatial_Data Tables_1-15_rev1, Published April 26, 2024, URL: (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=56536&shareable=true).
2023 WMP	Southern California Edison Company, 2023-2025 Wildfire Mitigation Plan, Published March 27, 2023, URL: (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53492&shareable=true).
2023-2025 WMP Approval	Office of Energy Infrastructure Safety, Decision on SCE's 2023-2025 WMP, Published October 24, 2023, URL: (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=55857&shareable=true).
Compliance Guidelines	Office of Energy Infrastructure Safety, Compliance Guidelines, Published September 2023, URL: (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=55586&shareable=true).
Compliance Process	Office of Energy Infrastructure Safety, Compliance Process, Published September 2024, URL:(https://energysafety.ca.gov/wp-content/uploads/2024/12//2024-wmp-compliance-process.pdf).

Citation	Reference
CPUC HFTD Designation	California Public Utilities Commission, "Fire-Threat Maps and Fire-Safety Rulemaking," July 28, 2025, URL: (https://www.cpuc.ca.gov/industries-and-topics/wildfires/fire-threat-maps-and-fire-safety-rulemaking).
DR-284 Response	Southern California Edison Company, DR-284 Response, Accessed November 2024, unpublished.
EC ARC	Southern California Edison Company, 2023 Wildfire Mitigation Plan Annual Report on Compliance, Published April 2, 2024, URL: (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=56427&shareable=true).
EC ARC Cost Variance Explanation	Southern California Edison Company, SCE ARC for 2023 WMP Cost Variance Explanation, Published April 3, 2024, URL: (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=56435&shareable=true).
IE ARC	NuConsult Services, LLC, 2023 WMP Independent Evaluator Annual Report on Compliance, Published July 30, 2024, URL: (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=57103&shareable=true).
Pub. Util. Code	Public Utilities Code, URL: (https://leginfo.legislature.ca.gov/faces/codesTOCSelected.xhtml?tocCode=PUC&tocTitle=+Public+Utilities+Code+-+PUC).
SVM Audit	Office of Energy Infrastructure Safety, Southern California Edison Company 2023 Substantial Vegetation Management Audit, Published February 18, 2025. URL: (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=57986&shareable=true).
SVM Audit and Report	Office of Energy Infrastructure Safety, Southern California Edison Company 2023 Substantial Vegetation Management Audit, Published June 13, 2025. URL: (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=58686&shareable=true).

Citation	Reference
SVM Audit Corrective Action Plan	Southern California Edison Company, SCE's 2023 SVM Audit Corrective Action Plan, Published March 19, 2025, URL: (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=58114&shareable=true).

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APPENDICES

9. Appendices

Appendix A: SCE Information on WMP Initiative Activity Attainment

Below, Table 5 summarizes each of SCE's 51 initiative activity targets from its 2023 WMP, and SCE's self-reporting on compliance contained in its QDR, SCE's self-reporting on compliance contained in its submission in response to Energy Safety DR-280, SCE's EC ARC, the IE ARC, and the SVM Audit and Report.[82]

Table 5. WMP Initiative Activity Attainment Information[83]

2023 WMP Initiative	2023 WMP Activity Target	QDR	EC ARC	IE ARC	Attainment Status	Planned Expenditure ($ thousand)	Actual Expenditure ($ thousand)
Covered Conductor 8.1.2.1.1 SH-1	Install 1,100 circuit miles of covered conductor in SCE's HFRA	Met Target: 1,100 circuit miles Actual: 1,217.36 circuit miles	Met Target: 1,100 circuit miles Actual: 1,220.06 circuit miles	Met Target: 1,100 circuit miles Actual: 1,220 circuit miles	Met	$898,026	$792,091

[82] DR-280, EC ARC, IE ARC, and SVM Audit and Report

[83] This table includes all initiative activities that had targets for the 2023 compliance year but does not include initiative activities for which SCE had planned or actual expenditures and no targets for the 2023 compliance year.

2023 WMP Initiative	2023 WMP Activity Target	QDR	EC ARC	IE ARC	Attainment Status	Planned Expenditure ($ thousand)	Actual Expenditure ($ thousand)
Undergrounding Overhead Conductor 8.1.2.2.1 SH-2	Convert 11 circuit miles of overhead to underground in SCE's HFRA	Not met Target: 11 circuit miles Actual: 8.54 circuit miles	Not met Target: 11 circuit miles Actual: 5.39 circuit miles	Not met Target: 11 circuit miles Actual: 5.4 circuit miles	Not met	$27,962	$16,829
Branch Line Protection Strategy 8.1.2.5.1 SH-4	Install or replace fusing at 500 fuse locations that serve HFRA circuitry	Met Target: 500 fuse locations Actual: 563 fuse locations	Met Target: 500 fuse locations Actual: 563 fuse locations	Met Target: 500 fuse locations Actual: 563 fuse locations	Met	$2,588	$850
Remote Controlled Automatic Reclosers Settings Update 8.1.2.8.1 SH-5	Install six sectionalizing devices	Met Target: 6 installed devices Actual: 7 installed devices	Met Target: 6 installed devices Actual: 7 installed devices	Met Target: 6 installed devices Actual: 7 installed devices	Met	$2,505	$1,526

2023 WMP Initiative	2023 WMP Activity Target	QDR	EC ARC	IE ARC	Attainment Status	Planned Expenditure ($ thousand)	Actual Expenditure ($ thousand)
Circuit Breaker (CB) Relay Hardware for Fast Curve 8.1.2.8.2 SH-6	Replace / upgrade 75 CB relay units with fast curve settings in SCE's HRFA	Met Target: 75 relay units Actual: 96 relay units	Met Target: 75 relay units Actual: 96 relay units	Met Target: 75 relay units Actual: 96 relay units	Met	$7,912	$8,444
Transmission Open Phase Detection (TOPD) 8.3.3.1.2.1 SH-8	Install TOPD at five locations that serve HFRA circuitry with both alarm and trip functionality	Met Target: Qualitative Actual: Five TOPD installed	Met Target: Five TOPD installed Actual: Five TOPD installed	Met Target: Five TOPD installed Actual: Five TOPD installed	Met	$725	$1,039

2023 WMP Initiative	2023 WMP Activity Target	QDR	EC ARC	IE ARC	Attainment Status	Planned Expenditure ($ thousand)	Actual Expenditure ($ thousand)
Tree Attachments Remediation 8.1.2.3.1 SH-10	Remediate 400 tree attachments in SCE's HFRA	Met Target: 400 tree attachments Actual: 562 tree attachments	Met Target: 400 tree attachments Actual: 560 tree attachments	Met Target: 400 tree attachments Actual: 560 tree attachments	Met	$16,697	$13,554
Long Span Initiative (LSI) 8.1.2.5.2 SH-14	Remediate 400 spans in SCE's HFRA	Met Target: 400 spans Actual: 493 spans	Met Target: 400 spans Actual: 493 spans	Met Target: 400 spans Actual: 493 spans	Met	$3,313	$2,570
Vertical Switches 8.1.2.10.2 SH-15	Install nine vertical switches in SCE's HFRA	Met Target: Nine vertical switches Actual: Nine vertical switches	Met Target: Nine vertical switches Actual: Nine vertical switches	Met Target: Nine vertical switches Actual: Nine vertical switches	Met	$530	$57

2023 WMP Initiative	2023 WMP Activity Target	QDR	EC ARC	IE ARC	Attainment Status	Planned Expenditure ($ thousand)	Actual Expenditure ($ thousand)
Vibration Damper Retrofit 8.1.2.1.2 SH-16	Retrofit vibration dampers on 300 structures where covered conductor is already installed in SCE's HFRA	Met Target: 300 vibration dampers Actual: 396 vibration dampers	Met Target: 300 vibration dampers Actual: 396 vibration dampers	Met Target: 300 vibration dampers Actual: 396 vibration dampers	Met	$107	$64
Rapid Earth Fault Current Limiter (REFCL) Ground Fault Neutralizer (GFN) 8.1.2.6.1 SH-17	Complete construction of GFN at two substations (Acton and Phelan)	Not met Target: Qualitative initiative Actual: One GFN completed (Acton)	Not met Target: Two GFNs completed Actual: One GFN completed	Not met Target: Two GFNs completed Actual: One GFN completed	Not met	$20,277	$18,226

2023 WMP Initiative	2023 WMP Activity Target	QDR	EC ARC	IE ARC	Attainment Status	Planned Expenditure ($ thousand)	Actual Expenditure ($ thousand)
Rapid Earth Fault Current Limiter (REFCL) - Grounding Conversion 8.1.2.6.2 SH-18	Complete grounding conversion at one location, subject to land availability	Met Target: Qualitative initiative Actual: One grounding completed	Met Target: One grounding completed Actual: One grounding completed	Met Target: One grounding completed Actual: One grounding completed	Met	$1,149	$410
Distribution High Fire Risk-Informed (HFRI) Inspections and Remediations (Ground and Aerial) 8.1.3.1 IN-1.1	Inspect 187,000 structures in HFRA	Met Target: 187,000 inspections Actual Ground: 204,167 inspections Actual Aerial: 200,674 inspections	Met Target: 187,000 inspections Actual Ground: 203,266 inspections Actual Aerial: 200,112 inspections	Met Target: 187,000 inspections Actual Ground: 203,266 inspections Actual Aerial: 200,112 inspections	Met	$209,899	$148,871

2023 WMP Initiative	2023 WMP Activity Target	QDR	EC ARC	IE ARC	Attainment Status	Planned Expenditure ($ thousand)	Actual Expenditure ($ thousand)
Transmission High Fire Risk-Informed (HFRI) Inspections and Remediations (Ground and Aerial) 8.1.3.2 IN-1.2	Inspect 28,000 structures in HFRA	Met Target: 28,000 inspections Actual Ground: 28,908 inspections Actual Aerial: 28,824 inspections	Met Target: 28,000 inspections Actual Ground: 28,744 inspections Actual Aerial: 28,603 inspections	Met Target: 28,000 inspections Actual Ground: 28,744 inspections Actual Aerial: 28,603 inspections	Met	$41,643	$39,819
Infrared Inspection of Energized Overhead Distribution Facilities and Equipment 8.1.3.5 IN-3	Inspect 5,300 distribution overhead circuit miles in HFRA	Met Target: 5,300 miles Actual: 5,401.30 miles	Met Target: 5,300 miles Actual: 5,401.30 miles	Met Target: 5,300 miles Actual: 5,401 miles	Met	$577	$575

2023 WMP Initiative	2023 WMP Activity Target	QDR	EC ARC	IE ARC	Attainment Status	Planned Expenditure ($ thousand)	Actual Expenditure ($ thousand)
Infrared Inspection, Corona Scanning, and High-Definition Imagery of Energized Overhead Transmission Facilities and Equipment 8.1.3.6 IN-4	Inspect 1,000 transmission overhead circuit miles in HFRA	Met Target: 1,000 overhead circuit miles Actual: 1,026.92 overhead circuit miles	Met Target: 1,000 overhead circuit miles Actual: 1,026.92 overhead circuit miles	Met Target: 1,000 overhead circuit miles Actual: 1,027 overhead circuit miles	Met	$102	$79
Generation High Fire Risk Informed Inspections and Remediations in HFRA 8.1.3.7 IN-5	Inspect 170 generation related assets in HFRA	Met Target: 170 inspections Actual: 225 inspections	Met Target: 170 inspections Actual: 225 inspections	Met Target: 170 inspections Actual: 225 inspections	Met	$270	$67

2023 WMP Initiative	2023 WMP Activity Target	QDR	EC ARC	IE ARC	Attainment Status	Planned Expenditure ($ thousand)	Actual Expenditure ($ thousand)
Inspection and Maintenance Tools 8.1.5 IN-8	Complete detailed design to migrate the distribution ground inspection application to the single digital platform	Not met Target: Qualitative initiative Actual: Missed target	Not met Target: Complete detailed design to migrate the distribution ground inspection application to the single digital platform. Actual: Missed target	Not met Target: Complete detailed design to migrate the distribution ground inspection application to the single digital platform. Actual: Missed target	Not met	$7,785	$8,354

2023 WMP Initiative	2023 WMP Activity Target	QDR	EC ARC	IE ARC	Attainment Status	Planned Expenditure ($ thousand)	Actual Expenditure ($ thousand)
Transmission Conductor & Splice Assessment: Spans with Line Vue 8.1.3.8 IN-9a	Inspect 50 spans with Line Vue	Met Target: 50 inspections Actual: 66 inspections	Met Target: 50 inspections Actual: 70 inspections	Met Target: 50 inspections Actual: 70 inspections	Met	$2,253	$1,418
Transmission Conductor and Splice Assessment with X-ray 8.1.3.8 IN-9b	Inspect 50 splices with X-rays	Met Target: 50 inspections Actual: 55 inspections	Met Target: 50 inspections Actual: 55 inspections	Met Target: 50 inspections Actual: 55 inspections	Met	Refer to IN-9A	Refer to IN-9A

2023 WMP Initiative	2023 WMP Activity Target	QDR	EC ARC	IE ARC	Attainment Status	Planned Expenditure ($ thousand)	Actual Expenditure ($ thousand)
Wildfire Safety Data Mart and Data Management (WiSDM) and Ezy Data System Management 8.1.5 DG-1	WiSDM: Enable semi-automated data aggregation and validations of Wildfire Data for SCE's QDR submission and external portal for external data sharing Ezy: Enable light detection and ranging (LIDAR) data management	Met Target WiSDM: Qualitative initiative Actual WiSDM: Met target Target Ezy: Enable Ezy data management Actual Ezy: Met target	Met Target WiSDM: Enable semi-automated data aggregation & validations of Wildfire Data for QDR submission and external portal Target Ezy: Enable LiDAR data management Actual WiSDM and Ezy: Met	Met Target WiSDM: Enable semi-automated data aggregation & validation of Wildfire Data for QDR & external portal Target Ezy: Enable LiDAR data management Actual WiSDM and Ezy: Met	Met	$14,450	$9,083

2023 WMP Initiative	2023 WMP Activity Target	QDR	EC ARC	IE ARC	Attainment Status	Planned Expenditure ($ thousand)	Actual Expenditure ($ thousand)
Hazard Tree Management Program (HTMP) 8.2.3.4.1 VM-1	Inspect 550 grids/circuits and prescribe mitigation for hazardous trees with strike potential within those grids in SCE's HFRA	Met Target: 412 inspections Actual: 427 inspections	Met Target: 412 inspections Actual: 427 inspections	Met Target: 412 inspections Actual: 427 inspections and clearing	Met	$36,622	$5,126
Structure Brushing 8.2.3.1.1 VM-2	Inspect and clear 63,700 structures	Met Target: 63,700 inspections and clearing Actual: 113,570 inspections and clearing	Met Target: 63,700 inspections and clearing Actual: 113,570 inspections and clearing	Met Target: 63,700 inspections and clearing Actual: 113,570 inspections and clearing	Met	$23,852	$12,460

2023 WMP Initiative	2023 WMP Activity Target	QDR	EC ARC	IE ARC	Attainment Status	Planned Expenditure ($ thousand)	Actual Expenditure ($ thousand)
Expanded Clearances for Generation Legacy Facilities 8.2.3.3.2 VM-3	Perform vegetation treatment and maintenance to 50 sites	Met Target: 50 vegetation treatment and maintenance sites Actual: 63 vegetation treatment and maintenance sites	Met Target: 50 vegetation treatment and maintenance sites Actual: 63 vegetation treatment and maintenance sites	Met Target: 50 vegetation treatment and maintenance sites Actual: 63 vegetation treatment and maintenance sites	Met	$830	$595
Dead & Dying Tree Removal 8.2.3.4.2 VM-4	Inspect 650 grids or circuits and prescribe mitigation for dead and dying trees with strike potential within those grids or circuits	Met Target: 509 inspections Actual: 526 inspections	Met Target: 509 inspections Actual: 526 inspections	Met Target: 509 inspections Actual: 526 inspections	Met	$24,766	$20,523

2023 WMP Initiative	2023 WMP Activity Target	QDR	EC ARC	IE ARC	Attainment Status	Planned Expenditure ($ thousand)	Actual Expenditure ($ thousand)
Vegetation Management Work Management Tool (Arbora) 8.2.4 VM-6	Enable supplemental Vegetation Management (emergent work) tree maintenance program capabilities in Arbora by end of year	Met Target: Qualitative Actual: Qualitative	Met Target: Enable supplemental Vegetation Management (emergent work) tree maintenance program capabilities in Arbora by end of year. Actual: Enabled	Met Target: Enable supplemental Vegetation Management (emergent work) tree maintenance program capabilities in Arbora by end of year. Actual: Enabled	Met	$6,403	$10,197

2023 WMP Initiative	2023 WMP Activity Target	QDR	EC ARC	IE ARC	Attainment Status	Planned Expenditure ($ thousand)	Actual Expenditure ($ thousand)
Detailed Inspections for the Prescription, Where Necessary and Feasible, of Expanded Vegetation Clearances from Distribution Lines in HFRA 8.2.3 VM-7	Inspect 770 grids within its distribution system	Met Target: 902 inspections Actual: 805 inspections	Met Target: 770 inspections Actual: 805 inspections	Met Target: 770 inspections Actual: 805 inspections	Met	$208,071	$175,158

2023 WMP Initiative	2023 WMP Activity Target	QDR	EC ARC	IE ARC	Attainment Status	Planned Expenditure ($ thousand)	Actual Expenditure ($ thousand)
Detailed Inspections for the Prescription, Where Necessary and Feasible, of Expanded Vegetation Clearances from Transmission Lines in HFRA 8.2.3 VM-8	Inspect 416 circuits within transmission system	Met Target: 416 inspections Actual: 440 inspections	Met Target: 416 inspections Actual: 440 inspections	Met Target: 416 inspections Actual: 440 inspections	Met	$19,309	$9,674
LiDAR Distribution Vegetation Inspections 8.2.2.4 VM-9	Inspect at least 1,020 HFRA circuit miles	Met Target: 1,020 inspected circuit miles Actual: 1,065.75 inspected circuit miles	Met Target: 1,020 inspected circuit miles Actual: 1,065.75 inspected circuit miles	Met Target: 1,020 inspected circuit miles Actual: 1,066 inspected circuit miles	Met	$1,040	$1,186

2023 WMP Initiative	2023 WMP Activity Target	QDR	EC ARC	IE ARC	Attainment Status	Planned Expenditure ($ thousand)	Actual Expenditure ($ thousand)
LiDAR Transmission Vegetation Inspections 8.2.2.4 VM-10	Inspect at least 1,820 HFRA circuit miles	Met Target: 1,820 circuit miles. Actual: 2,113.04 circuit miles.	Met Target: 1,820 circuit miles. Actual: 2,113.03 circuit miles.	Met Target: 1,820 circuit miles. Actual: 2,113 circuit miles.	Met	$4,952	$6,058
Wood and slash management 8.2.3.2	Tree trimming and removal	Missing	Missing	Missing	Not met[84]	$0	$0
Clearance 8.2.3.3	Ensure that vegetation does not encroach upon electrical equipment and facilities	Missing	Missing	Missing	Met[85]	$0	$0

[84] SVM Audit Report, pages 5- 8.
[85] SVM Audit Report, pages 9- 11.

2023 WMP Initiative	2023 WMP Activity Target	QDR	EC ARC	IE ARC	Attainment Status	Planned Expenditure ($ thousand)	Actual Expenditure ($ thousand)
Fall-in Mitigation 8.2.3.4	Identify and remove or otherwise remediate trees that pose a high risk of failure or fracture that could potentially strike electrical equipment	Missing	Missing	Missing	Met[86]	$0	$0

[86] SVM Audit, pages A-16- A-17.

2023 WMP Initiative	2023 WMP Activity Target	QDR	EC ARC	IE ARC	Attainment Status	Planned Expenditure ($ thousand)	Actual Expenditure ($ thousand)
Substation Defensible Space 8.2.3.5	Reduce ignition probability and wildfire consequence due to contact with substation equipment	Missing	Missing	Missing	Met[87]	$0	$0
High-Risk Species 8.2.3.6	Reduce the ignition probability and wildfire consequence attributable to high-risk species of vegetation	Missing	Missing	Missing	Met[88]	$0	$0

[87] SVM Audit, page A-18.
[88] SVM Audit, page A-19.

2023 WMP Initiative	2023 WMP Activity Target	QDR	EC ARC	IE ARC	Attainment Status	Planned Expenditure ($ thousand)	Actual Expenditure ($ thousand)
Fire-resilient Rights-of-Way 8.2.3.7	Promote vegetation communities that are sustainable, fire-resilient, and compatible with the use of the land as an electrical corporation right-of-way	Missing	Missing	Missing	Met[89]	$2,416.83	$271.41
Vegetation Management Enterprise System 8.2.4	Inventory vegetation and managing inspections	Missing	Missing	Missing	Met[90]	$0	$0

[89] SVM Audit, pages A-20- A-21.
[90] SVM Audit, pages A-24- A-25.

2023 WMP Initiative	2023 WMP Activity Target	QDR	EC ARC	IE ARC	Attainment Status	Planned Expenditure ($ thousand)	Actual Expenditure ($ thousand)
Quality Assurance and Quality Control – Vegetation Management 8.2.5	Perform audits of all Vegetation Management-related activities including pre-inspection, clearance (tree trimming), and pole clearing	Missing	Missing	Missing	Met[91]	$10,828	$5,550

[91] SVM Audit, pages A-26- A-30.

2023 WMP Initiative	2023 WMP Activity Target	QDR	EC ARC	IE ARC	Attainment Status	Planned Expenditure ($ thousand)	Actual Expenditure ($ thousand)
Open Work Orders – Vegetation Management 8.2.6	Actions taken to manage the electrical corporation's open work orders resulting from inspections that prescribe vegetation management activities	Missing	Missing	Missing	Not met[92]	$0	$0
Workforce Planning – Vegetation Management 8.2.7	Ensure electrical corporation has qualified vegetation management personnel	Missing	Missing	Missing	Met[93]	$0	$0

[92] SVM Audit Report, pages 11- 17.
[93] SVM Audit, pages A-36-A-38.

2023 WMP Initiative	2023 WMP Activity Target	QDR	EC ARC	IE ARC	Attainment Status	Planned Expenditure ($ thousand)	Actual Expenditure ($ thousand)
Weather Stations 8.3.2.1.1 SA-1	Install 85 weather stations in SCE's HFRA.	Met Target: 85 installations Actual: 114 installations	Met Target: 85 installations Actual: 114 installations	Met Target: 85 installations Actual: 114 installations	Met	$7,643	$6,063
Weather and Fuels Modeling 8.3.5 SA-3	Equip 500 weather station locations with machine learning capabilities	Met Target: Qualitative initiative Actual: 621 installations	Met Target: 500 installations Actual: 619 installations	Met Target: 500 installations Actual: 619 installations	Met	$6,925	$5,529

2023 WMP Initiative	2023 WMP Activity Target	QDR	EC ARC	IE ARC	Attainment Status	Planned Expenditure ($ thousand)	Actual Expenditure ($ thousand)
Fire Spread Modeling 8.3.2.1.2 SA-8	Complete analytics report summarizing assessment of historical consequence data for improved fire spread modeling	Met Target: Qualitative initiative Actual: Met target	Met Target: Complete analytics report summarizing assessment of historical consequence data for improved fire spread modeling Actual: Met target	Met Target: Analyze and report on improvements based on historical consequence data Actual: Report completed	Met	$2,427	$1,870
High Definition (HD) Cameras 8.3.4.1.1 SA-10	Install 10 HD Cameras	Met Target: 10 installations Actual: 10 installations	Met Target: 10 installations Actual: 10 installations	Met Target: 10 installations Actual: 10 installations	Met	$4,516	$3,451

2023 WMP Initiative	2023 WMP Activity Target	QDR	EC ARC	IE ARC	Attainment Status	Planned Expenditure ($ thousand)	Actual Expenditure ($ thousand)
Early Fault Detection 8.3.3.1.1 SA-11	Install Early Fault Detection (EFD) at 50 locations	Met Target: 50 installations Actual: 77 installations	Met Target: 50 installations Actual: 77 installations	Met Target: 50 installations Actual: 77 installations	Met	$3,741	$2,124
Wildfire Safety Community Meetings 8.5.2.1 DEP-1	Host at least four wildfire community safety meetings by region in targeted HFRA communities	Met Target: Four Actual: Four	Met Target: Four Actual: Four	Met Target: Four Actual: Four	Met	$117	$77

2023 WMP Initiative	2023 WMP Activity Target	QDR	EC ARC	IE ARC	Attainment Status	Planned Expenditure ($ thousand)	Actual Expenditure ($ thousand)
SCE Emergency Response Training 8.4.2.2.1 DEP-2	Ensure PSPS response teams are fully qualified or re-qualified annually to maintain readiness	Met Target: Qualitative initiative Actual: Target met	Met Target: PSPS response teams are fully qualified or re-qualified annually to maintain readiness Actual: Met target	Met Target: Fully qualify or re-qualify PSPS response teams. Actual: Qualified or re-qualified	Met	$1,067	$467
Customer Research and Education 8.5.2.3 DEP-4	Conduct at least five PSPS-related customer studies in 2023	Met Target: Five PSPS-related customer studies Actual: Five PSPS-related customer studies	Met Target: Five PSPS-related customer studies Actual: Five PSPS-related customer studies	Met Target: Five PSPS-related customer studies Actual: Five PSPS-related customer studies	Met	$4,017	$2,565

2023 WMP Initiative	2023 WMP Activity Target	QDR	EC ARC	IE ARC	Attainment Status	Planned Expenditure ($ thousand)	Actual Expenditure ($ thousand)
Aerial Suppression 8.4.3.3.1 DEP-5	Provide fire agencies with funding to support quick reaction force (QRF) program for 2023	Met Target: Qualitative initiative Actual: Target met	Met Target: Provide fire agencies with funding to support QFR for 2023 Actual: Met, final payment provided January 2023	Met Target: Provide fire agencies with funding to support QRF program Actual: Final payment provided	Met	$35,000	$34,675

2023 WMP Initiative	2023 WMP Activity Target	QDR	EC ARC	IE ARC	Attainment Status	Planned Expenditure ($ thousand)	Actual Expenditure ($ thousand)
Customer Care Programs (Critical Care Backup) 8.4.6.2 PSPS-2	Complete 85% of battery deliveries to eligible customers within 30 calendar days of program enrollment	Met Target: Complete 85% of battery deliveries to eligible customers within 30 calendar days of program enrollment Actual: 96% of customers enrolled received their battery within 30 calendar days	Met Target: Complete 85% of battery deliveries to eligible customers within 30 calendar days of program enrollment Actual: 96% of customers enrolled received their battery within 30 calendar days	Met Target: Complete 85% of battery deliveries to eligible customers within 30 calendar days of program enrollment Actual: 96% of customers enrolled received their battery within 30 calendar days	Met	$13,140	$12,895

2023 WMP Initiative	2023 WMP Activity Target	QDR	EC ARC	IE ARC	Attainment Status	Planned Expenditure ($ thousand)	Actual Expenditure ($ thousand)
Customer Care Programs (Portable Power Station and Generator Rebates) 8.4.6.3 PSPS-3	Process 85% of all rebate claims within 30 business days of receipt from website vendor	Met Target: Process 85% of all rebate claims within 30 business days of receipt from website vendor Actual: 99% of rebate claims were processed within 30 business days	Met Target: Process 85% of all rebate claims within 30 business days of receipt from website vendor Actual: 99% of rebate claims processed within 30 business days	Met Target: Process 85% rebate claims within 30 business days Actual: 99% of rebate claims were processed within 30 business days	Met	$1,328	$1,221

Appendix B: Substantial Vegetation Management Audit of SCE

On February 18, 2025, Energy Safety issued its Substantial Vegetation Management (SVM) Audit for SCE.

In the SVM Audit, Energy Safety found three initiatives where SCE did not perform all the required work and further required SCE to provide a response in its Corrective Action Plan.

After reviewing SCE's Corrective Action Plan, filed on March 19, 2025, Energy Safety issued its SVM Audit Report on June 13, 2025. The SVM Audit Report concluded that, of the 13 vegetation management initiatives considered, SCE did not substantially complete all work for two vegetation management initiatives: Wood and Slash Management – 8.2.3.2 and Open Work Orders - 8.2.6.

The findings from Energy Safety's SVM Audit and SVM Audit Report are detailed in Table 6.

Table 6. Energy Safety Findings from SCE 2023 SVM Audit and SVM Audit Report of WMP Vegetation Management Initiatives

2023 WMP Initiative Tracking ID	2023 WMP Initiative Name	SVM Audit Determination	SVM Audit Report Determination
8.2.2 Vegetation Management Inspections	8.2.2.1 – 8.2.2.4 Vegetation Inspections	Completed all work	Not addressed in SVM Audit Report
8.2.3 Vegetation Fuels Management	8.2.3.1 Pole Clearing	Completed all work	Not addressed in SVM Audit Report
8.2.3 Vegetation Fuels Management	8.2.3.2 Wood and Slash Management	Did not complete all work	Did not substantially comply
8.2.3 Vegetation Fuels Management	8.2.3.3 Clearance	Did not complete all work	Substantially complied
8.2.3 Vegetation Fuels Management	8.2.3.4 Fall-in Mitigation	Completed all work	Not addressed in SVM Audit Report

2023 WMP Initiative Tracking ID	2023 WMP Initiative Name	SVM Audit Determination	SVM Audit Report Determination
8.2.3 Vegetation Fuels Management	8.2.3.5 Substation Defensible Space	Completed all work	Not addressed in SVM Audit Report
8.2.3 Vegetation Fuels Management	8.2.3.6 High-Risk Species	Completed all work	Not addressed in SVM Audit Report
8.2.3 Vegetation Fuels Management	8.2.3.7 Fire-resilient Rights-of-Way	Completed all work	Not addressed in SVM Audit Report
8.2.3 Vegetation Fuels Management	8.2.3.8 Emergency Response Vegetation Management	Completed all work	Not addressed in SVM Audit Report
8.2.4 Vegetation Management Enterprise	8.2.4 Vegetation Management Enterprise System (Arbora)	Completed all work	Not addressed in SVM Audit Report
8.2.5 Quality Assurance / Quality Control	8.2.5 Quality Assurance / Quality Control	Completed all work	Not addressed in SVM Audit Report
8.2.6 Open Work Orders	8.2.6 Open Work Orders	Did not complete all work	Did not substantially comply
8.2.7 Workforce Planning	8.2.7 Workforce Planning	Completed all work	Not addressed in SVM Audit Report

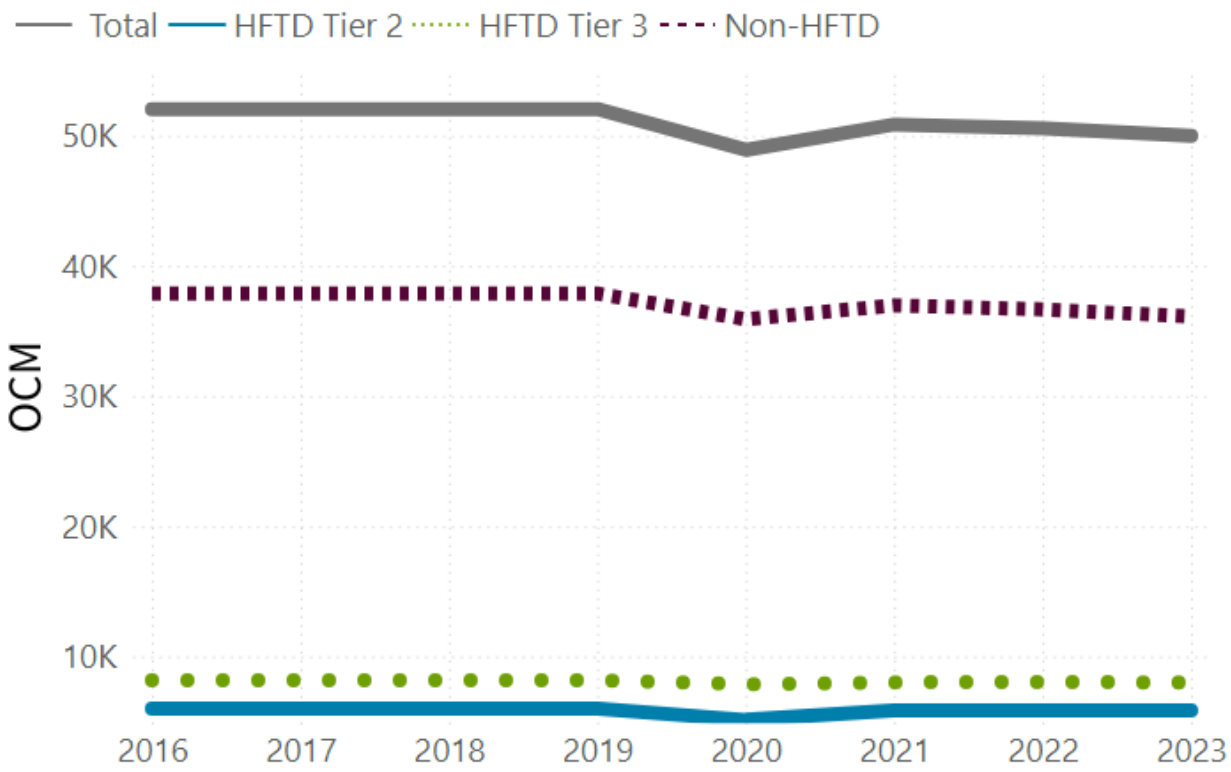
Appendix C: Additional Ignition Risk Analyses

Data for this appendix comes from the QDRs and the DR-284 Response as reported by SCE.[94]

Overhead Circuit Miles

The number of overhead circuit miles (OCM) has remained almost constant between 2016 and 2023 (Figure 19).

Figure 18. SCE Overhead Circuit Miles (2016-2023) by HFTD Tier

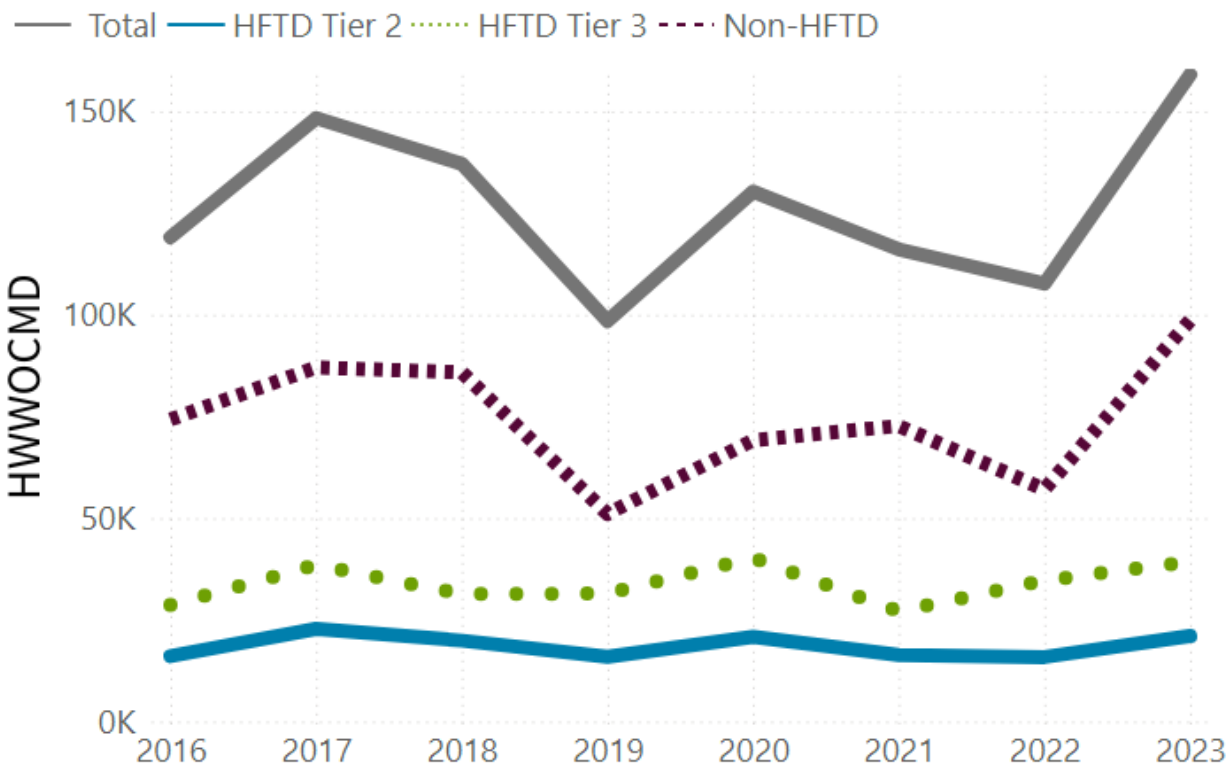


[94] 2022 Q3 QDR, Tables 6, 7.1, 7.2, and 8; 2023 Q4 QDR, Tables 4, 5, 6, and 7; and DR-284 Response.

High Wind Warning Overhead Circuit Mile Days

From 2016 through 2023, the number of high wind warning overhead circuit mile days (HWWOCMD) exhibited slight fluctuations for HFTD Tier 2 and HFTD Tier 3 between 2016 and 2022, before increasing across all tiers in 2023. The largest number of HWWOCMDs are consistently in the non-HFTD area (Figure 20).

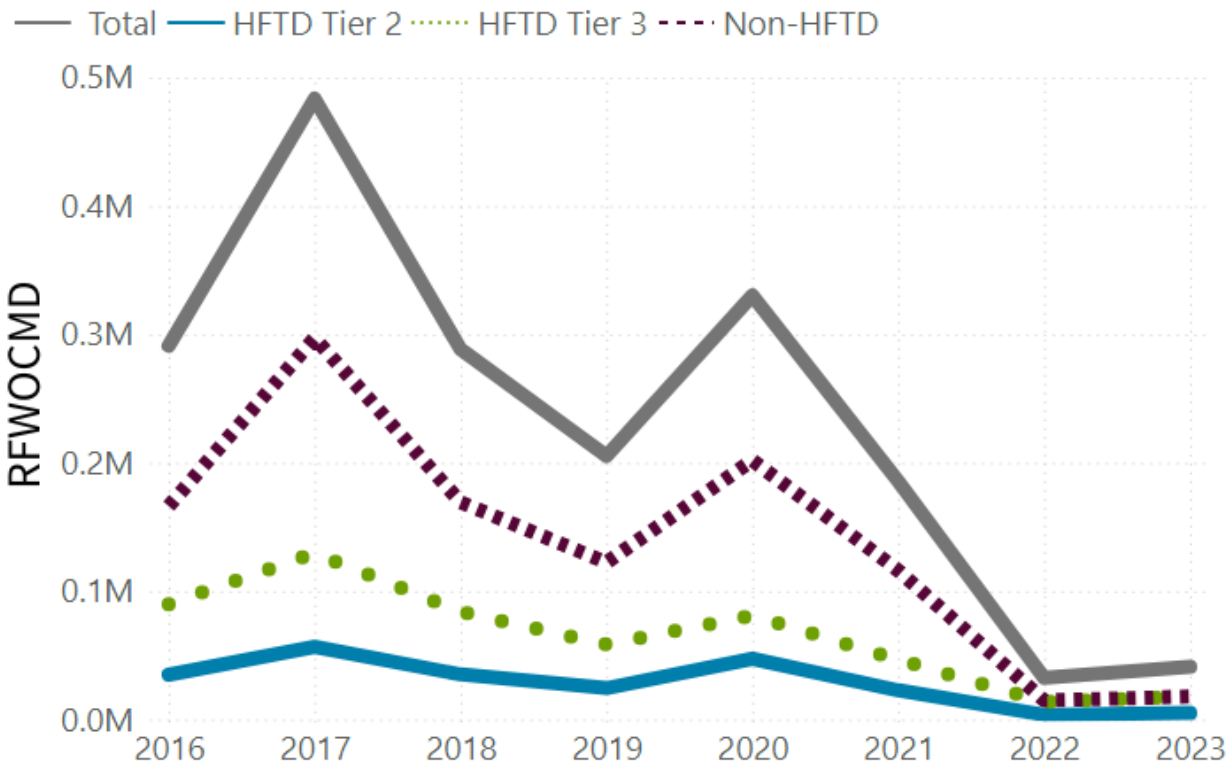
Figure 19. SCE High Wind Warning Overhead Circuit Mile Days (2016-2023) by HFTD Tier



Red Flag Warning Overhead Circuit Mile Days

The number of red flag warning overhead circuit mile days (RFWOCMD) has fluctuated between 2016 and 2023, with a peak in 2017 and a general decrease since then (Figure 21).

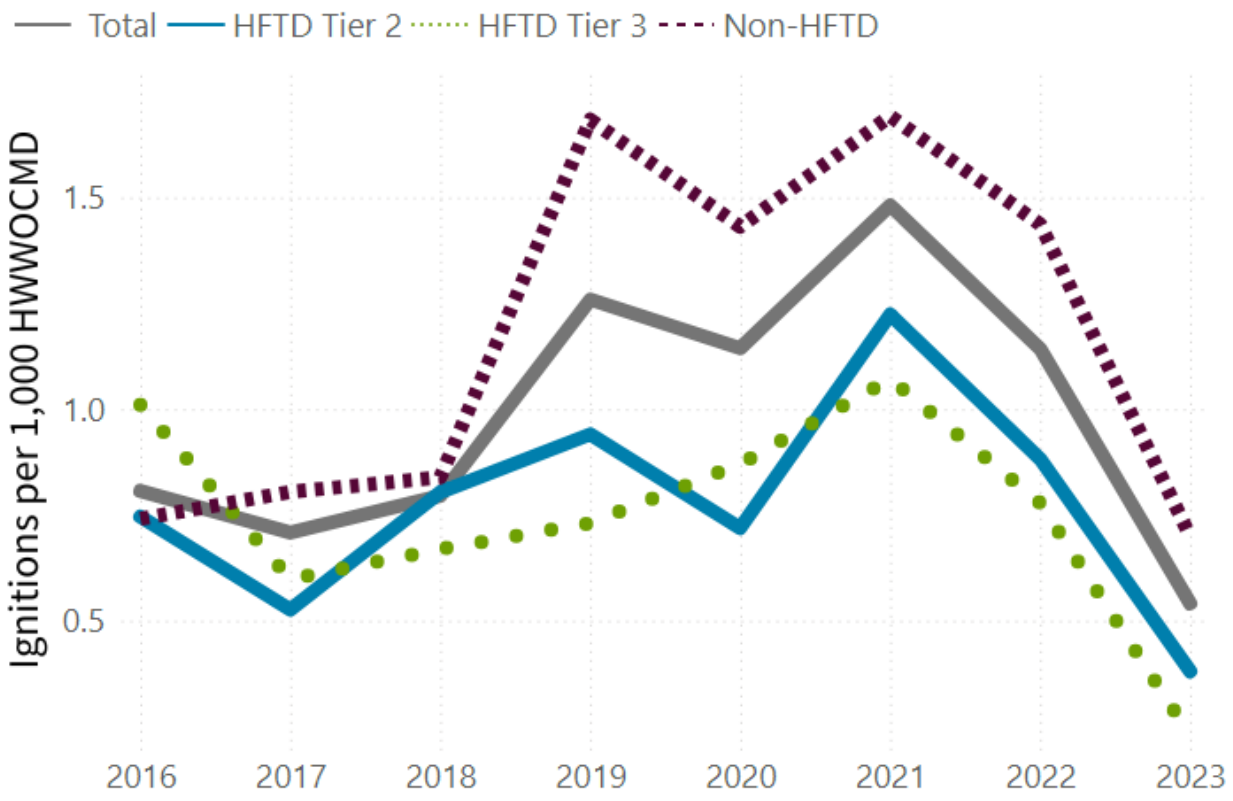
Figure 2120. SCE Red Flag Warning Overhead Circuit Mile Days (2016-2023) by HFTD Tier



Ignitions Normalized by High Wind Warning Overhead Circuit Mile Days by HFTD Tiers

To account for year-by-year variations in weather, ignitions were normalized by HWWOCMD. The normalized ignition totals exhibited generally increasing fluctuations between 2016 and 2021, then noticeably decreased from 2022 through 2023. The Non-HFTD tier appears to be the main driver of the normalized ignition totals (Figure 22).

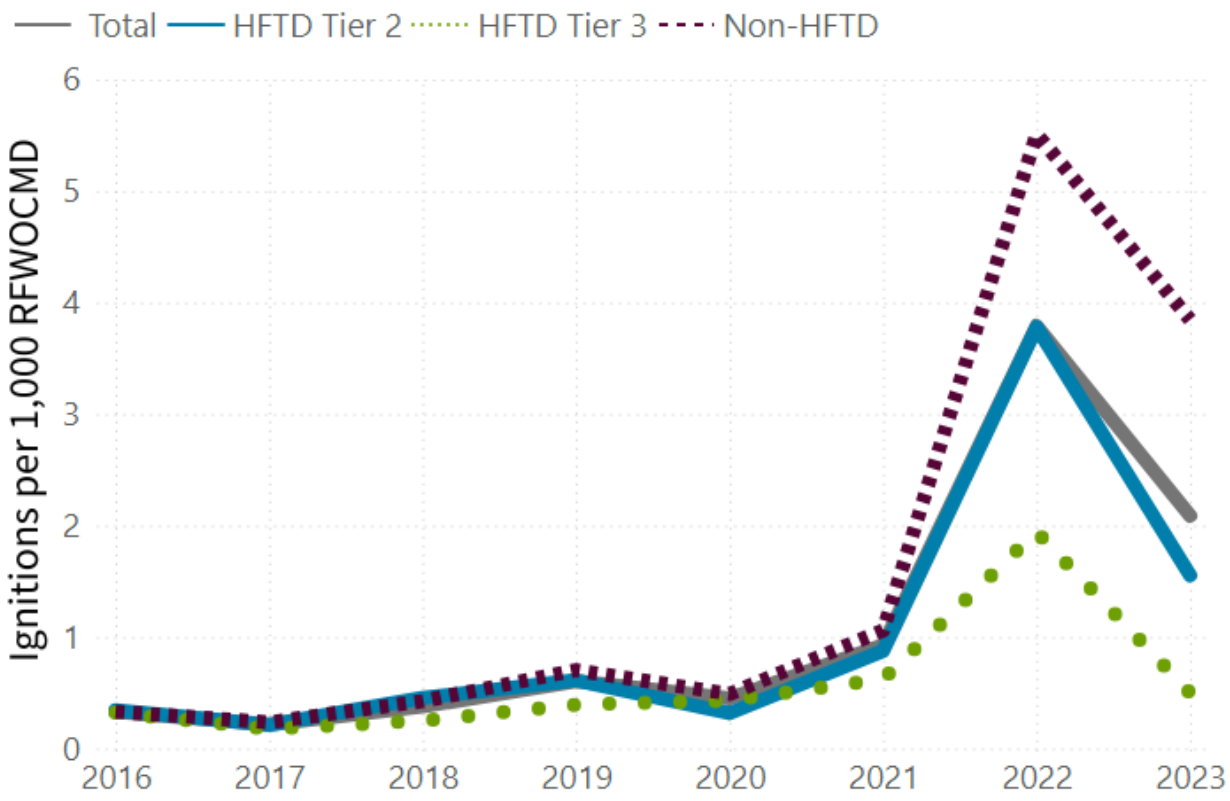
Figure 21. SCE Ignitions Normalized by HWWOCMD (2016-2023) by HFTD Tier



Ignitions Normalized by Red Flag Warning Overhead Circuit Mile Days by HFTD Tiers

The total number of ignitions normalized by RFWOCMD exhibited an increase from 2017 to 2022 before decreasing in 2023 (Figure 23).

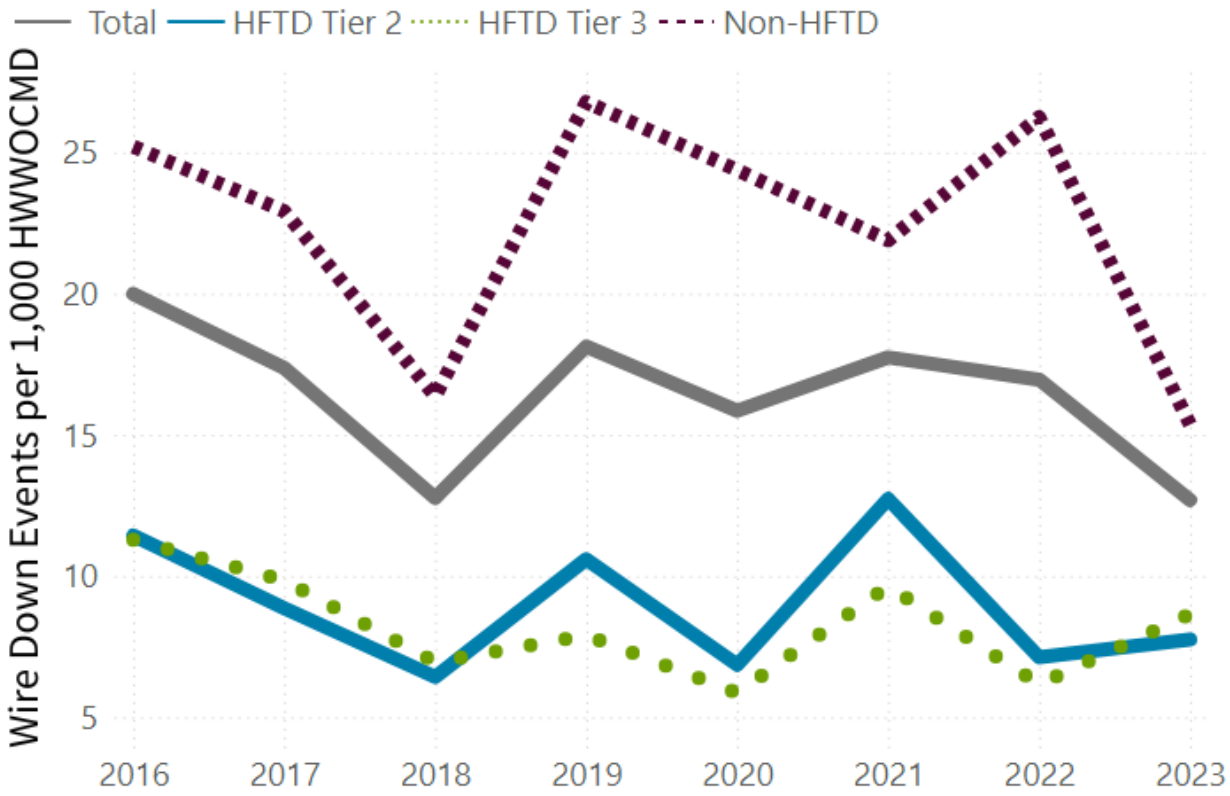
Figure 22. SCE Ignitions Normalized by RFWOCMD (2016-2023) by HFTD Tier



Wire Down Events Normalized by High Wind Warning Overhead Circuit Mile Days

When accounting for high wind conditions that may cause downed wires, the number of wire down events normalized by HWWOCMD displayed fluctuations from 2016 to 2023 (Figure 24). The non-HFTD tier appears to be the main driver of the normalized wire down events total.

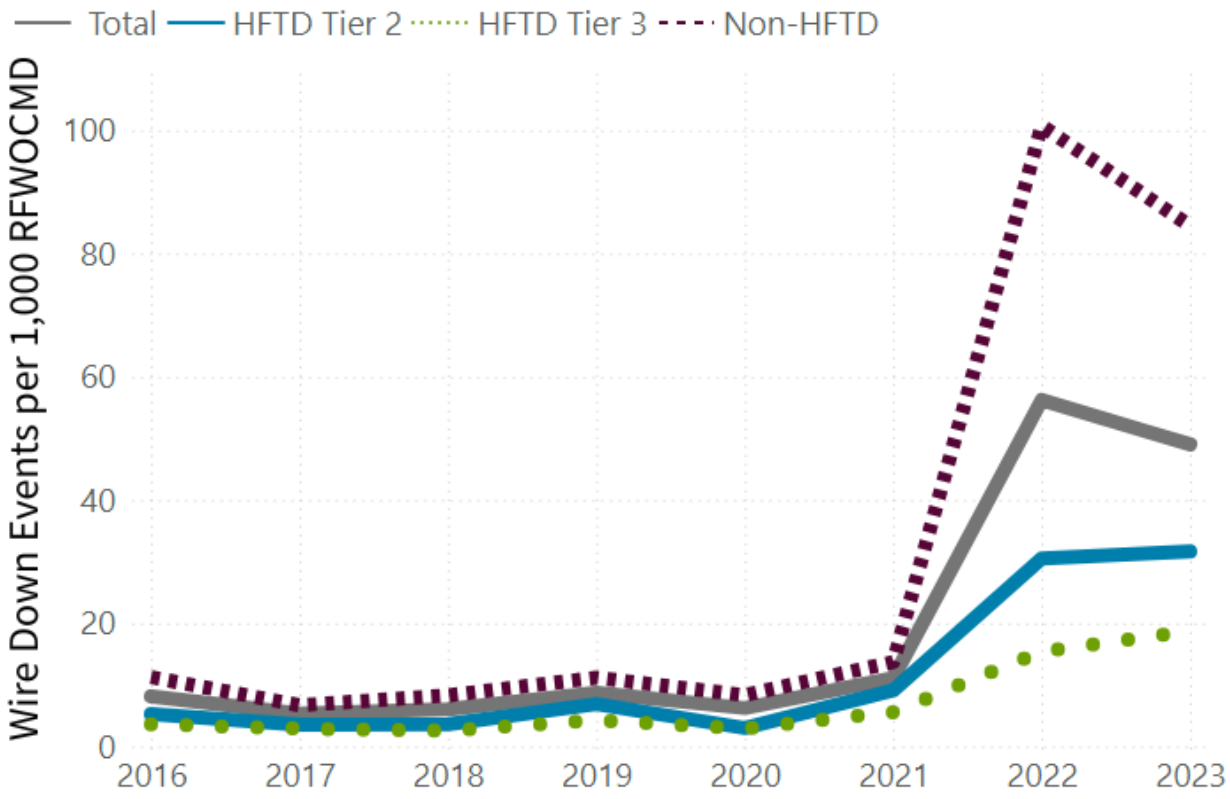
Figure 23. SCE Wire Down Events Normalized by HWWOCMD (2016-2023) by HFTD Tier



Wire Down Events Normalized by Red Flag Warning Overhead Circuit Mile Days

Wire down events normalized by RFWOCMD increased from 2021 to 2022 and then exhibited fluctuations through 2023 (Figure 25)

Figure 24. SCE Wire Down Events Normalized by RFWOCMD (2016-2023) by HFTD Tier

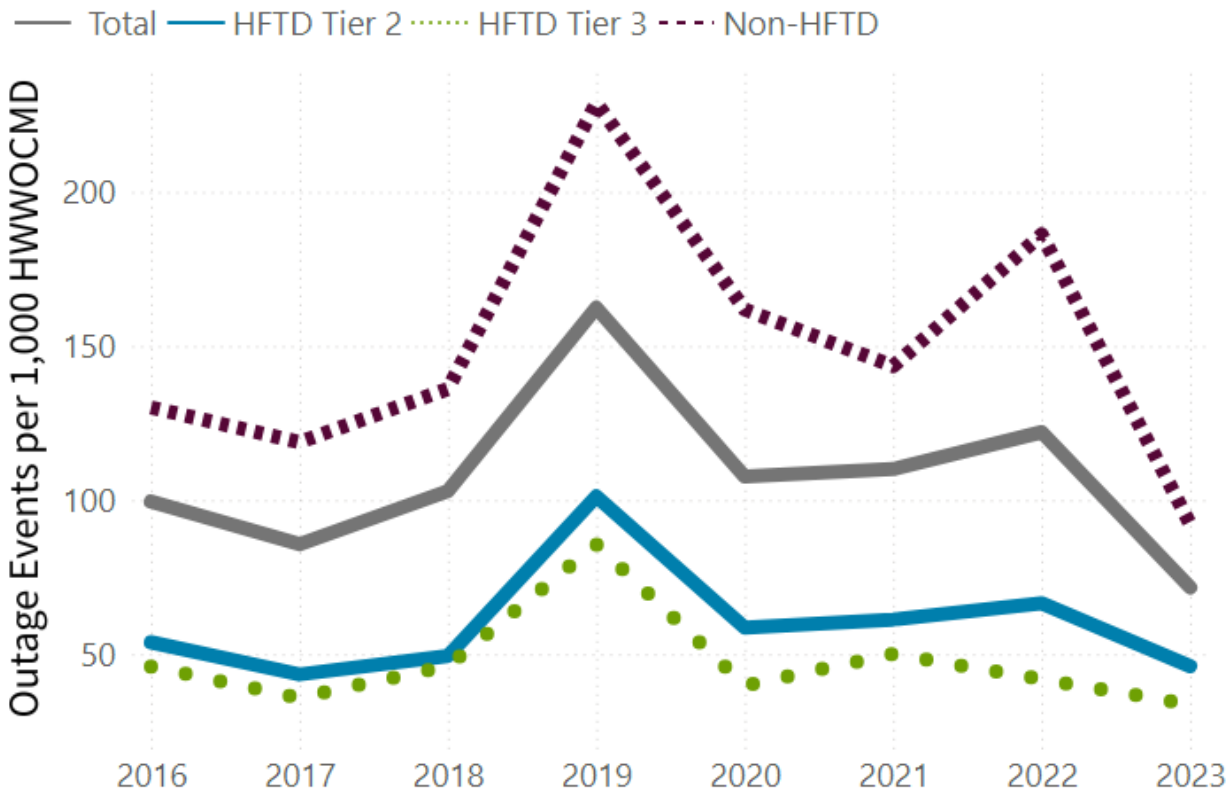


Outage Events Normalized by High Wind Warning Overhead Circuit Mile Days

To view the outage event trends with respect to year-to-year weather variations, outage event counts have been normalized by HWWOCMD.

Outage events normalized by HWWOCMD are relatively constant for the entire period except for a spike in 2019 and a drop from 2022 to 2023 (Figure 26)

Figure 25. SCE Outage Events Normalized by HWWOCMD (2016-2023) by HFTD Tier



Outage Events Normalized by Red Flag Warning Overhead Circuit Mile Days

Unplanned outage events normalized by RFWOCMD stayed relatively low until they increased from 2021 to 2022 and then decreased in 2023 (Figure 27).

Figure 26. SCE Outage Events Normalized by RFWOCMD (2016-2023) by HFTD Tier