



September 24, 2024

Dear Stakeholders,

Enclosed is the Office of Energy Infrastructure Safety's (Energy Safety's) Annual Report on Compliance regarding Horizon West Transmission LLC's execution of its 2022 Wildfire Mitigation Plan.

This Annual Report on Compliance is hereby published as of the date of this letter. Horizon West Transmission LLC, 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 Energy Safety's E-Filing system in the 2022 Annual Report on Compliance docket.<sup>1</sup>

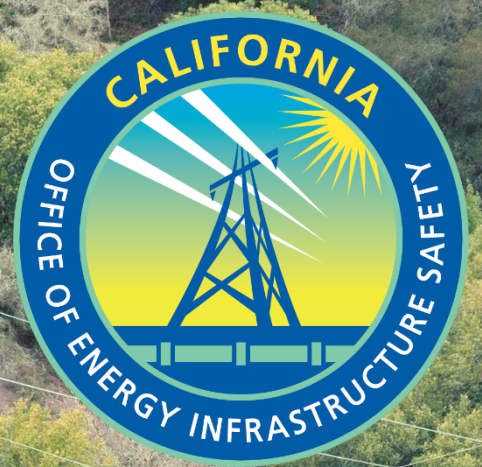
Sincerely,

Patrick Doherty  
Program Manager | Compliance Assurance Division  
Electrical Infrastructure Directorate  
Office of Energy Infrastructure Safety

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<sup>1</sup> Submit responses to the [2022-ARC](https://efiling.energysafety.ca.gov/EFiling/DocketInformation.aspx?docketnumber=2022-ARC) docket via the Office of Energy Infrastructure Safety's E-Filing system here: <https://efiling.energysafety.ca.gov/EFiling/DocketInformation.aspx?docketnumber=2022-ARC>.





**OFFICE OF ENERGY INFRASTRUCTURE SAFETY**  
**2022 ANNUAL REPORT ON**  
**COMPLIANCE**  
**HORIZON WEST TRANSMISSION**

September 2024



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## Executive Summary

The Office of Energy Infrastructure Safety (Energy Safety) is tasked with evaluating and either approving or denying Wildfire Mitigation Plans (WMP) 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 plans.

Energy Safety's evaluation found that Horizon West Transmission (HWT) completed all nine (100%) of its 2022 WMP Update initiatives. Energy Safety acknowledges that HWT undertook significant efforts to reduce its wildfire risk and achieved all its initiatives and program targets, including all initiatives with planned expenditure.

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 HWT's execution of its 2022 WMP Update is a comprehensive look at whether HWT's completion of its 2022 WMP Update 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 HWT to Energy Safety.

Energy Safety considered all compliance assessments completed with respect to HWT's approved 2022 WMP Update, including audits, field inspections, and analysis of data submitted by HWT to Energy Safety. Energy Safety also considered HWT's self-assessment in its Electrical Corporation Annual Report on Compliance and the findings of its independent evaluator annual report on compliance.

On balance, HWT was successful in executing its plan for wildfire risk mitigation.

# 1. Introduction

This Annual Report on Compliance presents the Office of Energy Infrastructure Safety's (Energy Safety's) statutorily mandated assessment of Horizon West Transmission's (HWT's) compliance with its 2022 Wildfire Mitigation Plan (WMP) Update. (Pub. Util. Code § 8386.3(c)(4).)

In the sections that follow, Energy Safety describes the statutory and regulatory basis for its reporting, the information supplied by HWT, and the independent analysis conducted by Energy Safety to examine HWT's execution of its 2022 WMP and how its infrastructure performed in 2022 relative to wildfire risk. Finally, Energy Safety provides its conclusions, observations, and recommendations for further actions by HWT.

## 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. (Pub. Util. Code § 8386(a).) The objective of a WMP, and consequently the focus of Energy Safety's assessment of compliance, is wildfire risk reduction. An electrical corporation's obligations extend beyond meeting WMP targets.

Energy Safety's 2022 Compliance Process establishes the parameters for this Annual Report on Compliance. Consistent with the 2022 Compliance Process, this report considers the totality of all compliance assessments completed with respect to HWT's 2022 WMP Update. 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. (Compliance Process, p. 6.)

Energy Safety evaluated whether the electrical corporation implemented the initiatives in its 2022 WMP Update, looking specifically at whether the electrical corporation funded and performed the work stated for each initiative. (Compliance Process, p. 7.)

Energy Safety also considered the electrical corporation's stated goals and objectives of its plan, its performance of initiatives essential to reducing wildfire risk and achieving its objectives, and the ultimate performance of its infrastructure relative to its wildfire risk, as measured by changes in the occurrence of events that correlate to wildfire risk. (Compliance Process, p. 7.)

## 2. Horizon West Transmission 2022 Wildfire Mitigation Plan

HWT submitted a comprehensive WMP in 2020 covering a three-year period from 2020 through the end of 2022. HWT submitted annual updates to the original 2020 WMP, including a 2022 Update to its 2020 WMP that is the subject of this Annual Report on Compliance.

Energy Safety approved HWT's 2022 Update to its 2020 WMP (hereinafter 2022 WMP Update) on August 30, 2022. (2022 WMP Update.) HWT's 2022 WMP Update highlighted ongoing efforts to mitigate wildfire risk related to its infrastructure. HWT is a transmission-only utility with no end use customers and one operational asset, the Suncrest facility, which it has operated since early 2020. The facility is located in an area designated as a Tier 3 (Extreme) High Fire Threat District (HFTD) based on the California Public Utility Commission's (CPUC's) Fire-Threat Map. (CPUC Fire-Threat Map.) Given HWT's small footprint and limited facilities, many of the initiatives and activities included in a typical WMP are not applicable to HWT. Despite this, HWT states that it is "very focused on wildfire safety and is determined to have industry-leading wildfire mitigation capabilities." (2022 WMP Update, pp. 14-15.)

Through its 2022 WMP Update, HWT notes its overarching goal is to implement continuous improvements to its wildfire-related systems, plans, and procedures. (2022 WMP Update, p. 31.) In support of its overarching goal, HWT planned to continue its construction of capital improvements designed to further harden the Suncrest facility according to prioritized wildfire mitigation measures, and conduct periodic evaluations of new technologies, materials, and methods for reducing fire risk at HWT facilities. (2022 WMP Update, p. 48.) Three prioritized improvements HWT intended to complete in 2022 included:

- Finalize the implementation and functionality of a cable monitoring system,
- Add improved functionality to the risk fire index.
- Completion of installed transformer seismic pads, transformer blast walls, and flame suppressing stone in containment pits.

HWT used two main sources to inform WMP initiative prioritization. The first was a third-party wildfire risk evaluation. This assessment evaluated wildfire risk at the facility, modeled a hypothetical ignition event, and identified appropriate wildfire hardening improvements. The second was HWT's internal risk analysis model. HWT uses a failure mode and effects analysis (FMEA) for its risk analysis which focuses on identifying and mitigating wildfire risks by considering potential failure modes at the asset level. Risks are identified and ranked based on occurrence (likelihood of an event taking place), severity (degree of impact of an event once it occurs), and detection (ability to know when an event has occurred). (2022 WMP Update, p. 33-35.)

Descriptions of the activities of the programs and initiatives contained in HWT's 2022 WMP

Update are listed in Table 1 in Section 5.1, below.

### 3. **Horizon West Transmission 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 2022 Compliance Process outlines the requirements for an EC ARC. The EC ARC must detail the electrical corporation's self-assessment of its compliance with the 2022 WMP Update during the 2022 compliance period. Energy Safety's 2021 Compliance Operational Protocols also apply to EC ARCs for the 2022 compliance period. These Protocols outline the requirements for EC ARCs, including an assessment by the electrical corporation of whether it met its intended risk reduction by implementing all its approved WMP initiatives (i.e., the degree to which initiative activities have reduced ignition probabilities), descriptions of all planned WMP initiative spending versus actual WMP initiative spending, and an explanation of any differentials between the planned and actual spending. (Compliance Operational Protocols, p. 10.)

HWT submitted its EC ARC to Energy Safety on March 31, 2023. The following is a narrative summary of the EC ARC.

While HWT did not discuss each individual initiative, HWT's narrative description of the activities completed in 2022 described the following progress:

- HWT reported that it completed initiatives in the areas of Situational Awareness and Grid Design and System Hardening, in addition to regular inspections and monitoring in Asset Management and Inspections, Vegetation Management and contracted services in Grid Operations and Protocols.
- With respect to its Situational Awareness activities, HWT reported it completed enhancements to its wildfire spread model with access to third-party real-time wildfire satellite data to monitor and track propagation of wildfires and inform an appropriate operational response.
- For Grid Design and System Hardening, HWT completed improvements to protect its transformers from a seismic event and to further reduce the risk of an ignition event, including installation of transformer seismic isolation pads, fire barrier walls, and flame-suppressing stone in the transformer containment pits.
- In the area of Asset Management and Inspections, HWT continued its cadence of monthly asset inspections and monitoring and incorporated additional inspections in advance of adverse weather conditions.
- HWT engaged a third-party vendor to provide vegetation management services in 2022, including weed abatement and management of the defensible space



surrounding HWT's Suncrest facility. Additionally, vegetation was inspected during the monthly asset inspections.

- In addition to regular asset and vegetation inspections and monitoring, HWT maintained third-party fire brigade support services for the Suncrest facility.

### 3.1 EC ARC Information on Initiative Completion

HWT reported its self-assessment of its compliance with its 2022 WMP Update initiatives within the EC ARC. (EC ARC, p. 4.)

HWT did not self-identify any explicit instances of non-attainment of 2022 WMP Update initiatives and did not provide any detailed discussions of planned versus actual expenditures. There was one WMP activity that was included in HWT's 2022 WMP Update that was not described or accounted for in the EC ARC: the continuous monitoring sensors initiative (7.3.2.2). This initiative had the goal of finalizing the implementation and functionality of HWT's cable monitoring system. For more information on HWT's self-reported compliance, please refer to Table 1 in Section 5.1.

### 3.2 EC ARC Information on Initiative Funding

Information supplied by HWT on its initiative funding appears in Appendix C. While a narrative description appears below, please refer to Appendix C for more detail.

In general, HWT spent above planned amounts on its 2022 WMP Update initiatives by over \$1.9 million, or more than double the original planned expenditure. Principally this was related to initiatives for Grid Designs and System Hardening where there was an overspend of over \$1.8 million. HWT reported that actual 2022 WMP Update expenditure exceeded planned expenditure because of increased costs related to its transformer upgrade project.

## 4. Independent Evaluator ARC for Horizon West Transmission

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. (Pub. Util. Code § 8386.3(c)(2)(A).) Each electrical corporation is then required to hire an independent evaluator from the list to perform an independent WMP compliance assessment. (Pub. Util. Code § 8386.3(c)(2)(B)(i).) The independent evaluator reviews and assesses the electrical corporation's compliance with its approved WMP. As part of its evaluation, the independent auditor must determine whether the electrical corporation failed to fund any activities included in its plan. On July 1<sup>st</sup> of each year, the independent evaluator issues its Independent Evaluator's Annual Report on Compliance (IE ARC) for a given electrical corporation. (Pub. Util. Code § 8386.3(c)(2)(B)(i).)

The 2022 IE ARC for HWT was prepared by Bureau Veritas North America Inc. The IE ARC reviewed the wildfire mitigation initiatives and activities implemented by HWT in 2022 and accounted for whether HWT met its performance objective targets, underfunded any of those targets, and followed its quality assurance/quality control (QA/QC) processes.

The independent evaluator (IE) determined that HWT had substantially completed its 2022 WMP Update activities. The IE also determined that HWT spent more than planned on its WMP activities. Finally, the IE concluded that HWT's QA/QC program was in conformance with the 2022 WMP Update. (IE ARC, p. 5.)

The IE conducted a field inspection of HWT's single field verifiable WMP initiative to test HWT's assertion that it met its 2022 WMP Update initiative target of completing transformer upgrades at the Suncrest facility. The IE's performance of this field inspection did not identify areas of concern or discrepancy. (IE ARC, pp. 11-17.) The IE identified HWT's remaining initiatives as qualitative and reviewed them through document requests.

As a result of the work conducted, the IE did not identify any instances of noncompliance with HWT's 2022 WMP Update. The IE noted that HWT consistently conducts equipment and vegetation inspections, continuously monitors for situational awareness, and annually assesses and evaluates facility wildfire risk, looking for areas to further fire harden and proactively reduce wildfire risk. (IE ARC, p. 19.)

Of the nine initiatives assessed, all were found to be compliant. One initiative was found to be underfunded by \$2,000, but the IE did not believe that this had an impact on meeting risk reduction intent. (IE ARC, p. 20.)

## 5. Energy Safety Evaluation of WMP Initiative Completion

Energy Safety's evaluation of HWT's performance in 2022 is that HWT attained all nine of its WMP initiative activities. The subsections below describe this independent examination of HWT's execution of its WMP Update in 2022.

### 5.1 Horizon West Transmission 2022 WMP Update Initiative Activities Assessed by Energy Safety

Energy Safety evaluated the totality of the compliance data available including HWT's 2022 WMP Update, the EC ARC, the IE ARC, HWT's Quarterly Data Reports (QDRs), findings of inspections conducted by Energy Safety, and responses to data requests received from HWT. (EC ARC, IE ARC, 2022 Q4 QDR.) The nine initiative activities that Energy Safety assesses in this

ARC are itemized in Table 1. Energy Safety’s evaluation of all this information leads it to conclude that HWT met all nine of its 2022 WMP initiatives.

*Table 1: HWT’s Planned Activities in its 2022 WMP Update*

2022 WMP Update Initiative	2022 Activity (2022 WMP Update, p. 68-83)
Situational Awareness and Forecasting: Continuous Monitoring Sensors (7.3.2.7)	Finalize the implementation and functionality of the cable monitoring system.
Situational Awareness and Forecasting: Forecast of a Fire Risk Index, Fire Potential Index, or similar (7.3.2.9)	Add improved functionality to HWT’s fire index.
Other Corrective Action: Grid Design and Hardening (7.3.2.23)	Complete transformer upgrades, including installing transformer seismic pads, transformer blast walls, and flame suppressing stone in transformer containment pits.
Asset Management and Inspections: Detailed Inspections of Transmission Electric Lines and Equipment (7.3.2.30)	Continue cadence of asset inspections.
Asset Management and Inspections: Quality Assurance/Quality Control of Inspections (7.3.2.42)	Continue cadence of asset inspections.
Vegetation Management and Inspections: Detailed Inspections of Vegetation Around Transmission Electric Lines and Equipment (7.3.2.46)	Continue cadence of asset inspections.
Vegetation Management and Inspections: Quality Assurance/Quality Control of Inspections (7.3.2.56)	Continue cadence of asset inspections.

2022 WMP Update Initiative	2022 Activity (2022 WMP Update, p. 68-83)
Stationed and On-Call Ignition Prevention and Suppression Resources and Service (7.2.2.71)	Continue contract with private fire brigade.
Emergency Planning and Preparedness: Protocols in Place to Learn from Wildfire Events (7.3.2.84)	Continue conducting after action reports as needed in the future to identify further improvements to HWT's wildfire strategy.

## 5.2 Energy Safety Analysis of Substantial Vegetation Management Audits

Public Utilities Code section 8386.3(c)(5) requires Energy Safety to perform an audit to determine whether the electrical corporation “substantially complied with the substantial portion” of its vegetation management requirements in its WMP. (Pub. Util. Code § 8386.3(c)(5)(C).) Energy Safety refers to this audit as the Substantial Vegetation Management (SVM) audit. Pursuant to section 8386(c)(5), Energy Safety conducted an audit of HWT's compliance with the vegetation management requirements in its 2022 WMP Update.

On August 14, 2024, Energy Safety issued its SVM Audit and Report for HWT. (SVM Audit and Report.) The purpose of the SVM Audit and Report is to assess whether HWT met its quantitative commitments and verifiable statements in its 2022 WMP Update related to vegetation management activities.

In the SVM Audit and Report, Energy Safety reviewed the five vegetation management initiatives detailed in HWT's 2022 WMP Update and found that HWT performed all of the work specified. For that reason, no corrective actions were required. As a result, Energy Safety found that HWT substantially complied with the substantial portion of the vegetation management requirements in its 2022 WMP Update. (SVM Audit and Report, p. 6.)

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

## 5.3 Energy Safety Field Inspection Analysis

Energy Safety performs inspections utilizing an electrical corporation's initiative activity data applicable to the WMP year compliance period. 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 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.<sup>1</sup>

For the 2022 compliance period, Energy Safety conducted 15 WMP inspection activities in HWT’s territory. The results of these inspection activities are described in Table 2.<sup>2</sup> Energy Safety’s inspection of HWT’s territory in 2022 focused on the following HWT facility elements that were the subject of WMP initiative activities in 2022: the perimeter wall, transformer blast walls, fire water storage tank, situational awareness cameras, weather station, flame-suppressing stone containment pits, transformer seismic pads, and the underground to overhead transmission line at the Suncrest substation.

*Table 2: Energy Safety’s Observations of Wildfire Mitigation Plan Violations in HWT’s Territory in 2022*

<b>WMP Inspection Metrics for 2022 in HWT’s Territory</b>	<b>Totals</b>
<b>Total WMP Inspection Activities</b>	15
<b>Total Violations Observed</b>	0
<b>Violation Rate</b>	0%
<b>Violations Overdue for Correction</b>	0

## 5.4 Horizon West Transmission WMP Initiative Activity Attainment in 2022

Energy Safety’s evaluation of HWT’s initiative activity attainment is that all nine of the nine initiatives were completed with zero not completed. In conducting this evaluation, Energy Safety reviewed HWT’s 2022 WMP Update, the EC ARC, the IE ARC, HWT’s Quarterly Data Reports (QDRs), findings of inspections conducted by Energy Safety, and responses to data

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<sup>1</sup> If Energy Safety observes a general wildfire safety concern during an inspection activity, then that is recorded as a “defect” or “Wildfire Safety Concern (WSC).” If Energy Safety observes non-compliance 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.”

<sup>2</sup> Energy Safety uses the term “inspection activity” to refer to a specific question or condition assessed during an inspection. 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 conditions are assessed, then that would count as 20 general wildfire safety inspection activities. In this example, a single utility pole inspection would lead to 28 inspection activities.

requests received from HWT.

## **6. Wildfire Risk Reduction: Performance Metrics, and Overall WMP Execution**

### **6.1 Ignition Risk and Outcomes Metrics**

Energy Safety did not conduct an ignition risk and outcome metric analysis for HWT in 2022. HWT does not have any retail customers, and thus does not foresee circumstances in which it would issue a public safety power shutoff (PSPS) event. In addition, because a great majority of HWT's infrastructure is underground, red flag warning data was not relevant to assessment of HWT's wildfire risk reduction. Energy Safety reviewed HWT's data and found that no risk events (i.e., ignitions, wire-down events, PSPS events, and unplanned or vegetation caused outages) occurred on HWT's infrastructure in 2022.

HWT has no distribution lines, and most of its infrastructure is either underground or within the perimeters of a single facility. This significantly limits HWT's wildfire risk exposure and provides a relatively low initial wildfire risk upon which HWT can improve. Nevertheless, HWT assessed its wildfire risk and identified mitigation efforts it needed to implement and several others to further evaluate. For these reasons, and because HWT had no reported risk events or foreseeable need for PSPS, Energy Safety finds that the net result of HWT's implementation of its 2022 WMP Update was a further reduction of its wildfire risk than would have been the case absent implementation.

### **6.2 Issues Related to HWT's Execution, Management, or Documentation of its WMP Implementation**

This section considers whether HWT exhibited issues related to its execution, management, or documentation in the implementation of its 2022 WMP Update. To accomplish this, Energy Safety undertook a holistic evaluation of all relevant information sources and assessments, including field verifications, for any systemic failings that may have hindered HWT's ability to reduce the risk of igniting a catastrophic wildfire.

Energy Safety did not find any systemic issues that hindered HWT's ability to adequately implement its WMP in 2022. An analysis of HWT's performance in 2022 revealed that HWT was successful in managing and documenting its data.

To support continuous improvement, Energy Safety notes that more granular initiative

management and tracking across reports, including management of planned expenditure, will help increase HWT's accountability towards mitigating wildfire risk. In particular, financial reporting could be more comprehensive as some initiatives had no mention of a budget or actual expenditures (see Appendix C for more detail).

## 7. Conclusion

Overall, HWT had positive outcomes related to implementation of its 2022 WMP Update. It met its targets for nine of the nine initiatives (100%) identified in its 2022 WMP Update, including all initiatives with planned expenditure. HWT completed their Grid Design and Hardening initiatives, including the installation of transformer seismic isolation pads, fire barrier walls and flame-suppressing stone in the transformer containment pits.

## 8. References

Table 3: Table of References

Reference	Citation
2022 Q4 QDR	Horizon West Transmission, "Horizon West Transmission Tabular Wildfire Mitigation Data Tables 1-15 for Q4 2022 R1," March 1, 2023. Available: <a href="https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53407&amp;shareable=true">https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53407&amp;shareable=true</a> .
2022 WMP Update	Horizon West Transmission, "Wildfire Mitigation Plan 2022," May 6, 2022. Available: <a href="https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52415&amp;shareable=true">https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52415&amp;shareable=true</a> .
Compliance Operational Protocols	California Public Utilities Commission, "2021 Compliance Operational Protocols," February 16, 2021. Available: <a href="https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52615&amp;shareable=true">https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52615&amp;shareable=true</a> .
Compliance Process	Office of Energy Infrastructure Safety, "2022 Compliance Process," October, 2022. Available: <a href="https://energysafety.ca.gov/wp-content/uploads/2022-wmp-compliance-process.pdf">https://energysafety.ca.gov/wp-content/uploads/2022-wmp-compliance-process.pdf</a> .
CPUC Fire-Threat Map	California Public Utilities Commission, "CPUC Fire-Threat Map," August 19, 2021. Available: <a href="https://files.cpuc.ca.gov/safety/fire-threat_map/2021/CPUC%20Fire%20Threat%20Map_v.3_08.19.2021.Letter%20Size.pdf">https://files.cpuc.ca.gov/safety/fire-threat_map/2021/CPUC%20Fire%20Threat%20Map_v.3_08.19.2021.Letter%20Size.pdf</a> .
EC ARC	Horizon West Transmission, "Annual Report on Compliance for 2022," March 31, 2023. Available: <a href="https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53602&amp;shareable=true">https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53602&amp;shareable=true</a> .
IE ARC	Bureau Veritas, "Final Independent Evaluator Annual Report on Compliance," June 30, 2023. Available: <a href="https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=54381&amp;shareable=true">https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=54381&amp;shareable=true</a> .
Pub. Util. Code § 8386	California Public Utilities Code Section 8386.
SVM Audit and Report	Office of Energy Infrastructure Safety, "2022 Substantial Vegetation Management Audit and Report Horizon West Transmission," August 14, 2024. Available: <a href="https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=57200&amp;shareable=true">https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=57200&amp;shareable=true</a> .

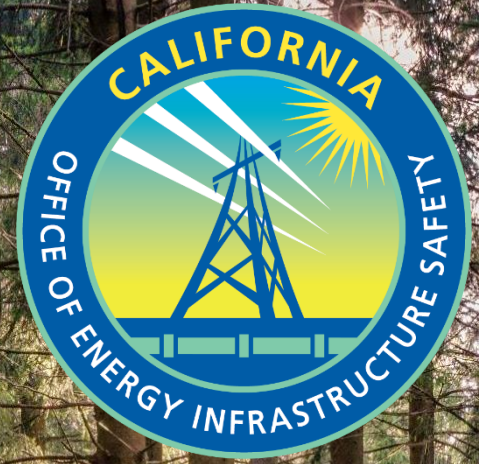


# DATA DRIVEN FORWARD-THINKING INNOVATIVE SAFETY FOCUSED



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# APPENDICES

## 9. Appendices

### Appendix A: Energy Safety Analysis of WMP Reporting Inconsistencies

Energy Safety receives data from the electrical corporations in the form of Quarterly Data Reports (QDR). These QDR submissions include information on the electrical corporation's progress toward meeting its WMP initiatives. By analyzing the entire QDR dataset for 2022, Energy Safety can determine if the electrical corporation's data reflect attainment or non-attainment of its WMP initiatives.

Differences in how HWT's initiative performance is reported in its QDR, EC ARC, and the IE ARC are summarized in Table 4 below. (2022 WMP Update; 2022 Q4 QDR, Table 1; EC ARC; IE ARC.)

*Table 4: Energy Safety Analysis of WMP Reporting Inconsistencies*

2022 WMP Update Initiative Activity	QDR Attainment Status	EC ARC Attainment Status	IE ARC Status	Dissonance
Situational Awareness and Forecasting: Continuous Monitoring Sensors (7.3.2.7)  Target: Finalize the implementation and functionality of the cable monitoring system	Inconclusive Target: Missing Actual: Missing	Inconclusive Target: Missing Actual: Missing	Complete Target: Missing Actual: Verified	Information missing in QDR and EC ARC.
Situational Awareness and Forecasting: Forecast of a Fire Risk Index, Fire Potential	Inconclusive Target: Missing Actual: Activity Ongoing	Complete Target: Missing Actual: Completed enhancements	Complete Target: Missing Actual: Verified	Missing data in QDR, EC ARC, and IE ARC.



Index, or Similar (7.3.2.9)		to its wildfire spread model		
Asset Management and Inspections: Quality Assurance/Quality Control of Inspections (7.3.2.42)	Inconclusive Target: Missing Actual: Missing	Inconclusive Target: Missing Actual: Missing	Activity Ongoing Target: Missing Actual: Verified	Missing data in QDR and EC ARC.
Vegetation Management and Inspections: Quality Assurance/Quality Control of Inspections (7.3.2.56)	Inconclusive Target: Missing Actual: Missing	Activity Ongoing Target: Missing Actual: Verified	Activity Ongoing Target: Missing Actual: Verified	Missing data in QDR
Stationed and On-Call Ignition Prevention and Suppression Resources and Service (7.2.2.71)	Inconclusive Target: Missing Actual: Missing	Activity Ongoing Target: Missing Actual: Complete	Activity Ongoing Target: Missing Actual: Complete	Missing data in QDR
Emergency Planning and Preparedness: Protocols in Place to Learn From Wildfire Events (7.3.2.84)	Inconclusive Target: Missing Actual: Missing	Inconclusive Target: Missing Actual: Missing	Activity Ongoing Target: Missing Actual: Verified	Missing data in QDR and EC ARC



## Appendix B: HWT EC ARC Information on WMP Initiatives

Summarized in Table 5 is each of HWT's nine initiative targets from its 2022 WMP Update, and HWT's self-reporting on compliance contained in its EC ARC.

Table 5: Information on WMP Initiative Activity Attainment

2022 WMP Update Initiative	2022 WMP Update Activity Target	2022 Actual (EC ARC 2022, pp. 2-3)
Situational Awareness and Forecasting: Continuous Monitoring Sensors (7.3.2.7)	Finalize the implementation and functionality of the cable monitoring system.	Continuous monitoring sensors are functional and implemented.*
Situational Awareness and Forecasting: Forecast of a Fire Risk Index, Fire Potential Index, or Similar (7.3.2.9)	Add improved functionality to HWT's fire index.	Secured access to third-party granular real-time wildfire satellite data to monitor and track propagation of wildfires to help evaluate proximity of fires to assets.
Other Corrective Action: Grid Design and Hardening (7.3.2.23)	Complete transformer upgrades, including installing transformer seismic pads, transformer blast walls, and flame-suppressing stone in transformer containment pits.	Completed installation of transformer seismic isolation pads, fire barrier walls, and flame-suppressing stone in the transformer containment pits.
Asset Management and Inspections: Detailed Inspections of Transmission Electric Lines and Equipment (7.3.2.30)	Continue cadence of asset inspections.	Continued cadence of monthly asset inspections and monitoring, in addition to extra inspections in advance of adverse weather conditions.
Asset Management and Inspections: Quality	Continue cadence of asset inspections.	Continued cadence of monthly asset inspections

2022 WMP Update Initiative	2022 WMP Update Activity Target	2022 Actual (EC ARC 2022, pp. 2-3)
Assurance/Quality Control of Inspections (7.3.2.42)		and monitoring, in addition to extra inspections in advance of adverse weather conditions.
Vegetation Management and Inspections: Detailed Inspections of Vegetation Around Transmission Electric Lines and Equipment (7.3.2.46)	Continue cadence of asset inspections.	Engaged a third-party to provide vegetation management services. Continued monthly asset inspections.
Vegetation Management and Inspections: Quality Assurance/Quality Control of Inspections (7.3.2.56)	Continue cadence of asset inspections.	Engaged a third-party to provide vegetation management services. Continued monthly asset inspections.
Stationed and On-Call Ignition Prevention and Suppression Resources and Service (7.2.2.71)	Continue cadence of contract.	Continued cadence of contract.
Emergency Planning and Preparedness: Protocols in Place to Learn from Wildfire Events (7.3.2.84)	Continue conducting After Action Reports (AARs) as needed in the future to identify further improvements to HWT's wildfire strategy.	No after-action reports required for 2022.

\* This information came from the IE ARC. HWT did not report on this initiative in its EC ARC.

## Appendix C: HWT EC ARC Information on WMP Initiative Expenditures

Summarized in Table 6 is the forecast and actual expenditure for each category of initiatives from HWT's 2022 WMP Update, and HWT's self-reporting on expenditure contained in its EC ARC.

Table 6: EC ARC Information on WMP Initiative Expenditures

2022 WMP Update Initiative Category	Initiative Number	2022 Expense Forecast	2022 Expense Actual	2022 Expense (Over)/Under Spend (EC ARC 2022, p. 4)
Risk and Mapping	N/A	-	-	-
Situational Awareness	7.3.2.7, 7.3.2.9	\$200,000	\$255,000	(\$55,000)
Grid Design and System Hardening	7.3.2.23	\$1,600,000	\$3,463,000	(\$1,863,000)
Asset Management and Inspections	7.3.2.30, 7.3.2.42	\$50,000	\$48,000	\$2,000
Vegetation Management	7.3.2.46, 7.3.2.56	\$0	\$17,000	(\$17,000)
Grid Operations and Protocols	N/A	\$40,000	\$73,000	(\$33,000) <sup>3</sup>
Data Governance	N/A	-	-	-
Resource Allocation	N/A	-	-	-
Emergency Planning	7.3.2.71, 7.3.2.84	\$0	\$0	\$0 <sup>4</sup>
Stakeholder Cooperation and Community	N/A	-	-	-

<sup>3</sup> Grid Operations was reported as Emergency Preparedness in the Q4 2022 QDR on Line 14 of Table 11, which is incorrect as it should be reported as Emergency Planning. (IE ARC, p. 31.)

<sup>4</sup> These initiatives had qualitative targets to maintain a contract for a private fire brigade and after-action reports. These initiatives appear to have no budget, and the values were incorrectly reported in Grid Operations and Protocols.

2022 WMP Update Initiative Category	Initiative Number	2022 Expense Forecast	2022 Expense Actual	2022 Expense (Over)/Under Spend (EC ARC 2022, p. 4)
Engagement				
Total		\$1,890,000	\$3,856,000	(\$1,966,000)

## Appendix D: Substantial Vegetation Management Audit of HWT

On August 14, 2024, Energy Safety issued its 2022 SVM Audit and Report for HWT. The purpose of the SVM Audit and Report is to assess whether HWT met its quantitative commitments and verifiable statements in its 2022 WMP Update related to vegetation management.

The findings from Energy Safety’s SVM Audit and Report are detailed in Table 7 below. (SVM Audit and Report.)

*Table 7: Substantial Vegetation Management Audit of HWT*

2022 WMP Update Initiative Number <sup>5</sup>	2022 WMP Update Initiative Name	Determination
7.3.5.3	Detailed Inspections and Management Practices for Vegetation Clearances Around Transmission Electric Lines and Equipment	Performed Required Work
7.3.5.13	Quality Assurance / Quality Control of Vegetation Management	Performed Required Work
7.3.5.17	Substation Inspections	Performed Required Work
7.3.5.18	Substation Vegetation Management	Performed Required Work
7.3.5.20	Vegetation Management to Achieve Clearances Around Electric Lines and Equipment	Performed Required Work

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<sup>5</sup> The initiative numbers listed in this table are from the SVM Audit and Report provided by Energy Safety. The initiative numbers referenced throughout the other sections of this document are derived from HWT’s 2022 WMP Update.