

OFFICE OF ENERGY INFRASTRUCTURE SAFETY

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December 13, 2022

To: 2020 Annual Report on Compliance for 2020 Wildfire

Mitigation Plans docket (#2020-ARC)

Subject: Annual Report on Compliance on HWT's 2020 Wildfire

Mitigation Plan

Dear Wildfire Mitigation Plan stakeholders,

Enclosed is the Office of Energy Infrastructure Safety's (Energy Safety's) final Annual Report on Compliance (ARC) for Horizon West Transmission's (HWT's) 2020 Wildfire Mitigation Plan (WMP).

On November 8, 2022, Energy Safety published a draft of this ARC on its website and served it to Energy Safety's Wildfire Mitigation Plan service list for public review and comment.

Comments on the draft Decision were due on November 28, 2022, and reply comments were due on December 8, 2022. Energy Safety did not receive any comments on the HWT draft ARC.

This ARC documents Energy Safety's finding that HWT substantially complied with its 2020 WMP during the compliance period.

Sincerely,

Koko Tomassian

Program Manager | Compliance Assurance Division

Electrical Infrastructure Directorate

Office of Energy Infrastructure Safety

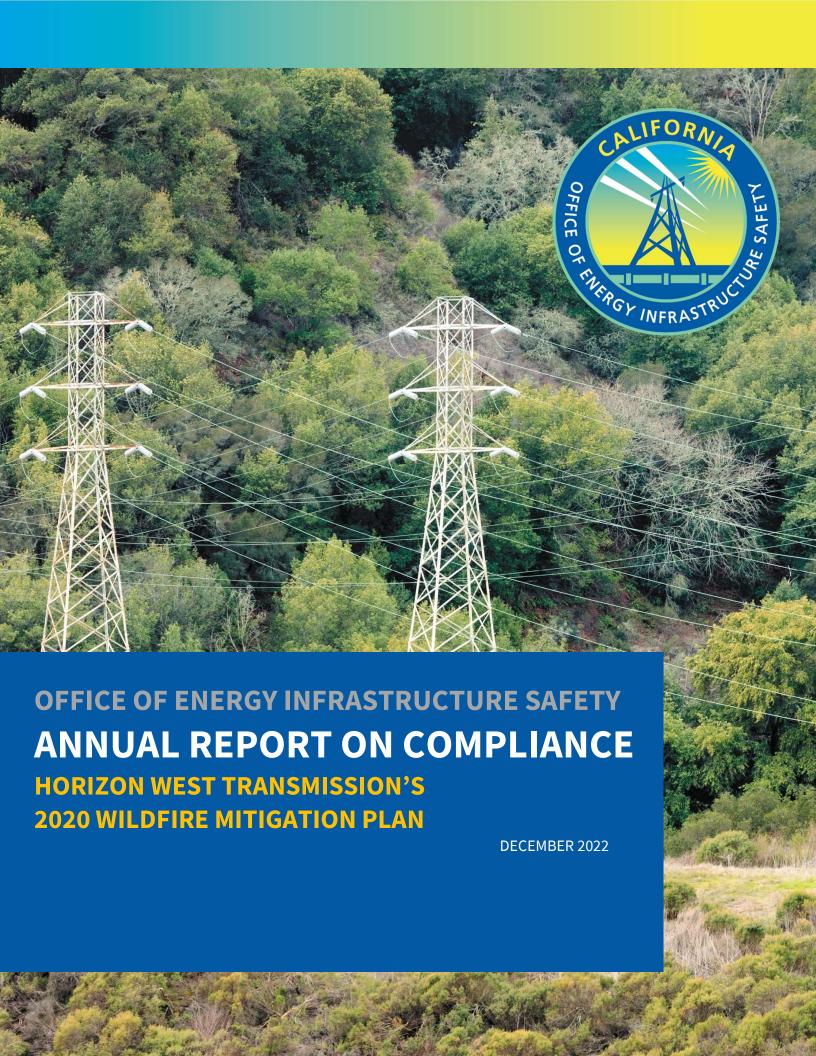


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Annual Report on Compliance for HWT's 2020 WMP

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1.0 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 electrical corporations have complied with their plans.

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. Therefore, as detailed in the Compliance Framework set forth in this Annual Report on Compliance, Energy Safety's evaluation of Horizon West Transmission's (HWT) performance to its 2020 WMP went beyond a "check-box" exercise of looking at whether HWT met its initiative targets and instead wholistically evaluated whether HWT's performance in 2020 reduced the risk of HWT's equipment igniting a catastrophic wildfire.

Energy Safety's compliance review process is conducted through a variety of means including audits, field inspections, and analysis of data submitted by HWT to Energy Safety. Substantial compliance with a WMP includes meeting not only program targets and plan objectives, but also reducing risk. As such, Energy Safety also evaluated several performance metrics. Finally, Energy Safety reviewed HWT's self-assessment in their Annual Report on Compliance and the findings of its independent evaluator.

Although HWT was unable to complete its undergrounding initiative, HWT sufficiently met its 2020 WMP initiative targets. The Independent Evaluator for HWT reached no findings of noncompliance. Additionally, in February 2021, Energy Safety inspected HWT's facilities and observed HWT's completed initiative work. Energy Safety acknowledged that HWT had limited wildfire risk exposure but still undertook significant efforts to assess and implement mitigations to reduce its wildfire risk. In most instances, HWT achieved its objectives and targets.

After considering all the sources of information before it, Energy Safety finds that HWT substantially complied with its 2020 WMP during the compliance period, January 1 to December 31, 2020.

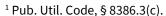
2.0 INTRODUCTION

This Annual Report on Compliance (ARC) presents the Office of Energy Infrastructure Safety's (Energy Safety's) statutorily mandated assessment of Horizon West Transmission's (HWT) compliance with its 2020 Wildfire Mitigation Plan (WMP).¹ Mitigation of wildfire risk is a highly dynamic and circumstantial endeavor that varies as a function of climate, weather, topography, and fuel conditions. The factors impacting catastrophic wildfire risk vary both temporally and geographically. Just as the mitigations to address an electrical corporation's wildfire risk are specifically unique to the dynamics of its territory, location, infrastructure, and various other temporal factors, Energy Safety's assessment of compliance with WMPs is equally tailored to the electrical corporation's unique scenario and circumstances.

HWT submitted its 2020 WMP on February 7, 2020. Energy Safety reviewed the plan and issued an approval on June 10, 2020.

In assessing HWT's compliance with its 2020 WMP, Energy Safety reviewed and considered the pertinent factors of HWT's infrastructure as it pertains to wildfire risk. At the time of its WMP submission, HWT was a new transmission operator that only had one facility (the Suncrest Facility), which was not yet in service.² Given its newly designed and constructed status, HWT's Suncrest Facility had the benefit of integrating significant hardening at these early stages.³ HWT indicated that it assessed wildfire risk at the facility level⁴ and that its strategies to mitigate wildfire risk are related to its strategies to manage overall risks related to safety and reliability of its infrastructure.⁵ To assess the risk with its infrastructure, HWT conducted a Failure Modes and Effects Analysis (FMEA) to evaluate potential failures from each component of HWT's infrastructure, assess and prioritize the potential risks, and provide mitigations.⁶

The Suncrest Facility consists of a single 230 kilovolt (kV) transmission line consisting of one mile of underground line and approximately 115 feet of overhead that connects to the San Diego Gas & Electric (SDG&E) Suncrest



² HWT 2020 WMP, page 10.



³ HWT 2020 WMP, page 40.

⁴ HWT 2020 WMP, page 31.

⁵ HWT 2020 WMP, page 44.

⁶ HWT 2020 WMP, page 38.

Substation near Alpine.⁷ HWT's Suncrest Facility is located in a Tier 3 high fire threat district (HFTD) location⁸ and is monitored 24 hours a day, seven days a week while in operation.⁹ As a reflection of its nascent state, HWT indicated that it would continue to refine its strategies as it transitioned from the design and construction to the operational phase of its first facility.¹⁰

2.1 Background

In 2019, following the devastating wildfires in 2017 and 2018, the California Legislature passed several bills increasing regulatory supervision of electrical corporations' efforts to reduce utility-related wildfires. Assembly Bill (AB) 1054 and AB 111 created Energy Safety and tasked it with reviewing WMPs submitted annually by electrical corporations and ensuring compliance with those plans. Energy Safety's primary objective is to ensure that electrical corporations reduce wildfire risk and comply with energy infrastructure safety measures.

2.2 Legal Authority

Energy Safety is responsible for overseeing compliance with electrical corporations' WMPs.¹³ Energy Safety has broad authority to obtain and review information and data and to inspect property, records, and equipment of every electrical corporation in furtherance of its duties, powers, and responsibilities.¹⁴ In addition to performing an overall assessment of compliance¹⁵ with the WMP, Energy Safety audits each electrical corporation's vegetation management work for compliance with WMP requirements¹⁶ and performs other reviews and audits. Energy Safety may rely upon metrics¹⁷ to evaluate WMP Compliance, including performance metrics adopted by the California Public Utilities Commission (CPUC).¹⁸ Annually, in consultation with Energy Safety, the CPUC adopts a wildfire mitigation plan

⁷ HWT 2020 WMP, page 7.

⁸ HWT 2020 WMP, page 39.

⁹ HWT 2020 WMP, page 32.

¹⁰ HWT 2020 WMP, page 44-45.

¹¹ The legislation which created Energy Safety mandated that the office be formed on January 1, 2020, as the Wildfire Safety Division (WSD) of the California Public Utilities Commission (CPUC) and transition to Energy Safety under the California Natural Resources Agency (CNRA) on July 1, 2021 – 18 months after being formed.

¹² Gov. Code, § 15475.1.

¹³ Pub. Util. Code, § 8386.3(c).

¹⁴ Gov. Code, § 15475.

¹⁵ Pub. Util. Code § 8386.3(c)(4).

¹⁶ Pub. Util. Code § 8386.3(c)(5)(A).

¹⁷ Pub. Util. Code §§ 326(a)(2), 8389(b)(1)

¹⁸ Pub. Util. Code § 8389(d)(4).

compliance process.¹⁹ The CPUC adopted the 2020 Compliance Process via Resolution WSD-012 on November 23, 2020.²⁰

2.3 Annual Compliance Process Cadence

Pursuant to Public Utilities Code section 8385(a)(1), a "compliance period" means a period of approximately one year. In its Compliance Operational Protocols issued on February 16, 2021, Energy Safety defined the compliance period for 2020-2022 WMPs as January 1 to December 31 for each calendar year of the three-year WMP.²¹

Public Utilities Code section 326(a)(3) instructs that Energy Safety utilize visual inspection of electrical corporation infrastructure and wildfire mitigation programs as a means of assessing WMP compliance. Furthermore, Public Utilities Code section 8386.3(c) outlines the baseline statutory framework for assessing WMP compliance through a series of audits, reviews, and assessments performed by Energy Safety, independent evaluators, and the electrical corporations themselves. The statutory framework also lays out a defined timeframe for several of the compliance assessment components as follows:

- Three months after the end of an electrical corporation's compliance period, each electrical corporation must submit a report addressing the electrical corporation's compliance with the plan during the prior calendar year.²² Pursuant to this requirement, HWT submitted its Electrical Corporation Annual Report on Compliance (EC ARC) for its 2020 WMP on March 31, 2021.
- Six months after the end of an electrical corporation's compliance period, an independent evaluator must submit an Independent Evaluator Annual Report on Compliance (IE ARC). The independent evaluators are engaged by each electrical corporation to review and assess the electrical corporation's compliance with its plan for the prior year. As a part of this report, the independent evaluator must determine whether the electrical corporation failed to fund any activities included in its plan.²³ HWT selected Bureau Veritas North America (BVNA) as its independent evaluator for compliance with the 2020 WMP. BVNA issued its IE ARC for HWT's 2020 WMP on July 1, 2021.
- In parallel with the above assessments, Energy Safety audits vegetation management activities. The results of the audit must specify any failure of the electrical corporation

¹⁹ Pub. Util. Code § 8389(d)(3).

²⁰ https://energysafety.ca.gov/wp-content/uploads/docs/compliance-process/20201008-compliance-staff-proposal_final.pdf.

²¹ https://efiling.energysafety.ca.gov/Search.aspx?docket=2021-OPS_GUIDELINES.

²² Pub. Util. Code, § 8386.3(c)(1).

²³ Pub. Util. Code, § 8386.3(c)(2)(B)(i).

to fully comply with the vegetation management requirements in the wildfire mitigation plan. Energy Safety then grants the electrical corporation a reasonable amount of time to correct and eliminate any deficiency specified in the audit.²⁴ Subsequently, Energy Safety issues a report describing any failure of the electrical corporation to substantially comply with the substantial portion of the vegetation management requirements in the electrical corporation's WMP.²⁵

• Eighteen months after the electrical corporation submits its compliance report pursuant to section 8386.3(c)(1), or twenty-one months after the end of the compliance period, Energy Safety completes its annual compliance review to determine whether the electrical corporation substantially complied with its WMP.²⁶ Energy Safety memorializes its conclusions in this ARC.

3.0 ARC COMPLIANCE FRAMEWORK

Public Utilities Code prescribes that the overarching intended 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.²⁷ The statutory 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. If the risk of catastrophic wildfire is not reduced, an electrical corporation has not satisfied the objective of its WMP. Therefore, Energy Safety's compliance evaluation of the 2020 WMPs went beyond an assessment of whether an electrical corporation met all stated targets (e.g. number of miles of covered conductor installed) to also examine whether the electrical corporation has reduced the risk of catastrophic wildfires. Energy Safety also evaluated whether there were systemic issues that hindered the electrical corporation's ability to meet targets and reduce wildfire risk.



²⁴ Pub. Util. Code, § 8386.3(c)(5)(C).

²⁵ Id.

²⁶ Pub. Util. Code, § 8386.3(c)(4), CPUC Resolution WSD-012 2020 WMP Compliance Process. November 2020. https://energysafety.ca.gov/wp-content/uploads/docs/compliance-process/20201008-compliance-staff-proposal_final.pdf.

²⁷ Pub. Util. Code, § 8386(a).

Energy Safety's compliance evaluation examined the totality of data and findings before the department and applied rigorous analysis to determine whether an electrical corporation substantially complied with its WMP.

Energy Safety conducted its compliance assessment to answer the following questions:

- 1. Did the electrical corporation implement its WMP through completion of approved initiatives (i.e., did the electrical corporation meet its stated qualitative and quantitative targets)?
- 2. Did the electrical corporation achieve the stated objectives set forth in its 2020 WMP (see Section 4.2)?
- 3. Was the electrical corporation's performance consistent with achieving wildfire risk reduction?

3.1 Completion of Approved WMP Initiatives

To assess compliance with approved WMP initiatives, Energy Safety evaluated whether the electrical corporation met all stated quantitative and qualitative targets set by the electrical corporation in its plan. Energy Safety particularly focused on those initiatives directly associated with the achievement of WMP objectives as well as those that constituted a significant portion of financial expenditures by the electrical corporation as the expenditures demonstrated where the electrical corporation focused most of its resources to reduce wildfire risk.

Where an electrical corporation failed to meet a stated target, Energy Safety evaluated the rationale provided by the electrical corporation, if any, for such failure. Energy Safety also looked for systemic issues that may have caused underperformance, e.g., conflicting/inconsistent documentation, poor communication practices, or substandard quality control practices.

Finally, Energy Safety evaluated the quality of WMP initiative implementation. Even where an electrical corporation met a target for work volume, to comply with a WMP and ensure reduction of risk, the work must be completed correctly and in an effective, high-quality manner.

3.2 2020 WMP Objectives

To assess whether an electrical corporation achieved its 2020 WMP objectives, Energy Safety relied upon the information sources set forth in Section 3.4 below. Where an electrical corporation failed to meet a stated objective, Energy Safety evaluated the rationale, if any,

provided by the electrical corporation. Energy Safety also looked for systemic issues that may have caused underperformance (see Section 3.3).

3.3 Achieving Wildfire Risk Reduction

The 2020 WMP is the base year in the first three-year WMP cycle (2020-2022). As such, Energy Safety was limited in making direct determinations on the effectiveness of the 2020 WMP in reducing wildfire risk in that same year as the benefits of some actions may take time to come to fruition. Energy Safety conducted a trend analysis on several outcome metrics (e.g., ignitions) from 2015-2020, normalized for weather and fuel conditions, to assess prior performance and to track any notable changes that occurred in 2020. Energy Safety will again evaluate these metrics at the end of the three-year WMP cycle to evaluate correlations between WMP implementation performance and outcomes.

Energy Safety further analyzed how the electrical corporation prioritized implementation of WMP initiatives to determine whether work was undertaken in the areas of highest risk. Not all areas in an electrical corporation's service territory present equal ignition risk or consequence. Therefore, it is not enough to meet a target; WMP initiatives must first be concentrated and deployed in the areas of highest risk to buy down as much risk as possible.

Finally, Energy Safety undertook a holistic evaluation of all relevant information sources and assessments, including field verifications, to bring to light systemic failings of the electrical corporation that may hinder its ability to reduce catastrophic wildfires. Such failings could contribute to increased risk on the system even if WMP targets are achieved. Therefore, Energy Safety looked for trends across analyses to weave together a deeper and more nuanced understanding of WMP compliance.

3.4 Information Sources Used for ARC Analysis

Energy Safety relied upon the following sources of information to conduct its analysis:

- Information provided by the electrical corporation i.e., the EC ARC, Quarterly Initiative Updates, compliance self-reporting.
- Information provided by the independent evaluator's review of the electrical corporation's compliance with its 2020 WMP (IE ARC).
- Findings from Energy Safety field inspections.
- Data submitted to Energy Safety by the electrical corporation²⁸ including responses to data requests.

²⁸ Energy Safety received data from the electrical corporation through three main paths: Quarterly Advice Letter submissions, Quarterly Data Request submissions, and Quarterly Initiative Updates.

3.4.1 EC ARC

Three months after the end of the compliance period, the electrical corporation must submit a report to Energy Safety addressing its compliance with its approved 2020 WMP.²⁹ The Compliance Operational Protocols outline the minimum requirements and structure for HWT's 2020 WMP compliance review report.³⁰ The report must include:

- An assessment of whether the electrical corporation achieved the risk reduction intent
 by implementing all of its approved WMP initiatives, i.e., the degree to which initiative
 activities have reduced ignition probabilities. If the electrical corporation failed to
 achieve the intended risk reduction, Energy Safety required the electrical corporation
 to provide a detailed explanation of why and a reference to where associated
 corrective actions were incorporated into their most recently submitted WMP.
- A full and complete listing of all change orders³¹ and any other operational changes, such as initiative location changes, made to WMP initiatives, with an explanation of why the changes were necessary, and an assessment of whether the changes achieved the same risk reduction intent.
- Descriptions of all planned WMP initiative spend vs. actual WMP initiative spend and an explanation of any differentials between the planned and actual spends.
- A description of whether the implementation of WMP initiatives changed the threshold(s) for triggering a Public Safety Power Shutoff (PSPS) event and/or reduced the frequency, scale, scope and duration of PSPS events.
- A summary of all defects identified by Energy Safety within the annual compliance period, the corrective actions taken and the completion and/or estimated completion date.³²

3.4.2 IE ARC

Each year before March 1, Energy Safety, in consultation with the Office of the State Fire Marshall, must publish a list of qualified independent evaluators.³³ The electrical corporations must each engage an independent evaluator from the list to review and assess its compliance with the respective approved WMP.³⁴ The independent evaluator must issue a report, referred to as the Independent Evaluator Report on Compliance (IE ARC), by July 1 of each year covering the previous calendar year. As a part of the report, the independent evaluator must

²⁹ Pub. Util. Code, § 8386.3(c)(1).

³⁰ Wildfire Safety Division – Compliance Operational Protocols, page 10-12.

³¹ See CPUC Resolution WSD-002, pages 32-35, for detail regarding the 2020 WMP change order process.

³² The defect summary component of the ARC contents does not supplant detailed defect correction responses, which shall be filed with WSD throughout the year as needed (see Appendix Part 2. Response and Corrective Action Timeline in the Operational Protocols for details).

³³ Pub. Util. Code § 8386.3 (c)(2)(A).

³⁴ Pub. Util. Code, § 8386.3(c)(2)(B).

determine whether the electrical corporation failed to fund any activities included in its plan.^{35 36} Energy Safety considered the independent evaluator's findings in this ARC, but the independent evaluator's findings are not binding on Energy Safety's final determination of WMP compliance.³⁷

3.4.3 Inspections

Pursuant to Public Utilities Code section 326(a)(3), to ensure electrical corporations complied with their WMPs and operated their infrastructure in a manner that reduces wildfire risk, Energy Safety conducted detailed visual inspections of electrical infrastructure to verify work was performed by electrical corporations, as reported in approved WMPs, and to assess the condition of infrastructure.

Energy Safety began conducting inspections related to the 2020 WMPs in May 2020. Inspections covered core wildfire mitigation efforts related to vegetation management, system hardening, situational awareness, and emergency preparedness and response, in addition to general compliance with applicable Government Order (GO) 95 requirements. The review and analysis of data compiled on findings from these inspections formed the basis of Energy Safety's observations and conclusions in Section 5.3.

3.4.4 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"³⁸ of its vegetation management requirements in its WMP. Energy Safety refers to this audit as the "Substantial Vegetation Management" (SVM) audit.

Pursuant to Public Utilities Code section 8386(c)(5), Energy Safety acknowledges that HWT did not have a formal vegetation management program in 2020.³⁹ Due to the limited nature of HWT's facilities and associated ignition risk, Energy Safety approved HWT's 2020 WMP without requiring a vegetation management program. Therefore, Energy Safety did not conduct an SVM audit for HWT.⁴⁰

³⁵ Pub. Util. Code, § 8386.3(c)(2)(B).

³⁶ The independent evaluator reviews performed for the 2020 WMPs were the first of their kind and completed in a considerably truncated timeframe.

³⁷ Pub. Util. Code, § 8386.3(c)(2)(B)(ii).

³⁸ Pub. Util. Code, § 8386.3(c)(5)(C).

³⁹ Horizon West Transmission 2020 Substantial Vegetation Management Letter.pdf, sent to Horizon West Transmission on August 25, 2022.
⁴⁰ Id.

3.4.5 Data

Energy Safety analyzed performance metrics and other data when assessing whether the electrical corporation complied with its 2020 WMP. Energy Safety required electrical corporations to submit spatial and non-spatial data through Quarterly Data Reports (QDRs), Quarterly Initiative Updates (QIUs), and Quarterly Advice Letters (QALs).

4.0 HWT'S 2020 WMP

The 2020 WMP Guidelines were issued on December 16, 2019, via Administrative Law Judge's Ruling on Wildfire Mitigation Plan Templates and Related Material and Allowing Comment. ⁴¹ The 2020 WMP Guidelines outlined the requirements and expectations for the 2020 WMP submissions including reporting templates, metrics, timelines, structure, and minimum levels of detail. The 2020 WMP Guidelines were designed to:

- Increase standardization of information collected on electrical corporations' wildfire risk exposure.
- Enable systematic and uniform review of information each electrical corporation submits.
- Move electrical corporations toward an effective long-term wildfire mitigation strategy, with systematic tracking of improvements over time.⁴²

The 2020 WMP Guidelines structured the submission into five sections, as follows:

- 1. Persons responsible for executing the plan.
- 2. Metrics and underlying data.
- 3. Baseline ignition probability and wildfire risk exposure.
- 4. Inputs to the plan and directional vision including objectives.
- 5. Listing of wildfire mitigation initiatives for each year of the three-year plan period.

4.1 2020 WMP Objectives

The 2020 WMP Guidelines required each electrical corporation to describe the specific objectives of its 2020 WMP in section 4.1.⁴³ The 2020 WMP Guidelines also specified that objectives must be described with respect to the following timeframes:

1. Before the upcoming wildfire season (as declared by CALFIRE).

⁴¹ See CPUC Rulemaking R.18-10-007.

⁴² CPUC Resolution WSD-002, page 2.

⁴³ 2020 WMP Guidelines, page 43.

- 2. Before the next annual update.
- 3. Within the next three years.
- 4. Within the next 10 years.44

In determining whether HWT substantially complied with its 2020 WMP, Energy Safety considered and weighed the plan's objectives. For the purposes of this ARC, Energy Safety only considered HWT's objectives with respect to the first two timeframes.

HWT's overarching objectives were to comply with California Public Utilities Code section 8386 at its Suncrest location, to have a world class fire-protection infrastructure, and to have facilities that account for several operational risks that are present in California.⁴⁵

HWT explicitly committed to the following:

- 1. Before the upcoming wildfire season:
 - a) Implement all fire safety protocols, measures, and plans that have been prepared for the facility.⁴⁶
- 2. Before the next annual update:
 - a) Build, operate, and maintain its facilities according to established fire prevention procedures and strategies.
 - b) Periodically evaluate new technologies, materials, and methods for further reducing fire risk.⁴⁷

4.2 HWT's 2020 WMP Initiatives

The 2020 WMP Guidelines established a set of 10 categories for which WMP initiatives were to be grouped and reported in electrical corporation 2020 WMPs. These categories ranged from risk assessment and mapping to stakeholder cooperation and community engagement. However, due to the limited size and scope of its operations, many established WMP categories and initiatives were not applicable to HWT (e.g., any categories and initiatives related to community engagement do not apply to HWT as it does not have any retail customers). As a result, HWT's 2020 WMP attempted to fit the elements of its wildfire and operational risk mitigation efforts into the structure required by the 2020 WMP Guidelines, which did not cleanly mesh together. HWT often grouped and reported distinct activities together as single initiatives. For example, the "Inspections" initiative in section 5.3.4 of HWT's 2020 WMP included training, facility, vegetation, and fuel modification activities.⁴⁸

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⁴⁴ 2020 WMP Guidelines, page 43.

⁴⁵ HWT 2020 WMP, section 4.1.1, p. 32

⁴⁶ HWT 2020 WMP, page 33.

⁴⁷ Id

⁴⁸ HWT 2020 WMP, page 62.

Additionally, HWT reported certain initiatives in nonintuitive initiative categories (e.g., "undergrounding" being included in the "Risk Assessment and Mapping" category) creating challenges with associating initiatives to categories defined in the 2020 WMP Guidelines. ⁴⁹ These issues complicated Energy Safety's review of HWT's 2020 WMP initiatives.

Nevertheless, Energy Safety reviewed section 5.3 of HWT's 2020 WMP, where the 2020 WMP Guidelines required planned initiatives to be reported,⁵⁰ and identified a total of four initiatives allocated across all 10 categories.

Table 1 below provides a summary of HWT's four 2020 WMP initiatives, the categories HWT reported them in, its reported planned spending for each initiative, and the percentage of the total 2020 WMP budget the spending for each initiative comprised.

Table 1: HWT's 2020 WMP Initiatives by Category

Initiative Category	Initiative Name	2020 Planned Spend (\$K)	% of 2020 WMP Budget
Risk assessment and mapping	Undergrounding of 115 feet of overhead line ⁵¹	\$1,700	42%
Risk assessment and mapping	SVC Site Hardening ⁵²	\$2,200	53%
Situational awareness and forecasting	Advanced weather monitoring, weather stations, and OH line/pole cameras ^{53,54}	\$150	4%
Asset management and inspections	Inspections ^{55,56}	\$15-35	1%
Total		\$4,085 ⁵⁷	100%

In addition, in section 3.4.2 of its 2020 WMP, HWT stated that it planned to identify and evaluate additions and upgrades of equipment over the three-year WMP period (i.e., 2020-2022) that it could implement to further reduce its wildfire risk.⁵⁸ As discussed in Section 4.0,

⁴⁹ HWT 2020 WMP, page 56.

⁵⁰ 2020 WMP Guidelines, page 49.

⁵¹ HWT 2020 WMP, page 56.

⁵² Id.

⁵³ HWT 2020 WMP, page 59.

⁵⁴ Per HWT's 2020 WMP, this one initiative includes the deployment of weather stations and pole cameras. HWT's 2020 QIU splits these into separate initiatives and includes the installation of transformer oil gas monitors in this category.

⁵⁵ HWT 2020 WMP, page 62.

⁵⁶ Per HWT's 2020 WMP, this initiative includes the asset and vegetation inspections. Those inspection types are identified as separate initiatives in HWT's 2020 Q4 QIU.

⁵⁷ This calculation used the higher value in the range provided for "Inspections."

⁵⁸ HWT 2020 WMP, page 27.

HWT conducted a FMEA study to evaluate potential failures from each component of its infrastructure, assess and prioritize the potential risks, and provide mitigations. HWT provided a list of such potential mitigations that it was "further evaluating" in section 3.4.2 of its 2020 WMP. That list included the initiatives in Table 1 but also included the following:

- Installation of fire barrier walls and projectile shielding between potential fire risks and HWT equipment.⁶⁰
- Installation of fixed foam deluge system or portable foam system with local fire service advice. 61
- Performing transformer seismic hardening. 62
- Utilizing real-time condition monitoring technology of transformer health relative to operating conditions.⁶³
- Evaluating various equipment and technologies (e.g., transformer bushings, protective coating, pole fall sensors, etc.) to mitigate wildfire risk.⁶⁴

In section 6.6 of its 2020 WMP, HWT relisted the various initiatives it was further evaluating. The list presented in section 6.6 closely mirrored the list from section 3.4.2 provided above, but also included the following additional initiatives:

- Enhancing the vegetation setback around the substation and overhead line, covering it with crushed rock, and applying vegetation growth suppression.⁶⁵
- Completing a comprehensive wildfire risk assessment done by a third-party.

While in its 2020 WMP HWT presented the above initiatives through the context of mitigations it would evaluate throughout the three-year WMP period and not specifically during the 2020 WMP compliance period, as presented in later sections of this ARC, HWT's data submissions and its independent evaluation included many of these initiatives. Energy Safety considered data and information available regarding wildfire mitigation work completed by HWT during the 2020 WMP compliance period relevant regardless of whether that information was provided in section 5.3 of its 2020 WMP.

Table 2 provides an overview of HWT planned 2020-2022 WMP spend.⁶⁷

⁶¹ Id.

⁶² HWT 2020 WMP, page 28.

⁵⁹ HWT 2020 WMP, page 27.

⁶⁰ ld.

⁶³ Id

⁶⁴ HWT 2020 WMP, pages 27-28.

⁶⁵ HWT 2020 WMP, page 87.

⁶⁶ HWT 2020 WMP, page 88.

⁶⁷ CPUC Resolution WSD-009, page 5.

Planned 2020-2022 WMP Costs

2020 \$4.7 million

2021 \$4.3 million

2022 \$15 thousand

\$8.4 million

Table 2: HWT's Planned 2020-2022 WMP Expenditures⁶⁸

As can be seen from Table 2, after initial startup and hardening costs of its first two years in operation, HWT's 2020 WMP anticipated that WMP-related costs would significantly decrease beginning in 2022.

5.0 COMPLIANCE ASSESSMENTS

2020-2022 Plan Period

In the following sections, Energy Safety provides the findings from the compliance source inputs it relied upon in making its annual determination of compliance in this ARC.

5.1 HWT Self-Assessed Compliance Reporting

HWT timely submitted HWT EC ARC on March 31, 2021 and reported the following:

- 1. In 2020, HWT completed:
 - a. Installation of a ten feet tall concrete wall around its facility. 69
 - b. Installation of a weather station and camera. 70
 - c. Installation of a transformer oil gas monitor.⁷¹
 - d. Monthly detailed asset inspections as well as additional proactive inspections ahead of extreme weather. ⁷²
- 2. HWT implemented all the approved 2020 WMP initiatives and was in the middle of undergrounding its overhead conductors.⁷³
 - a. The undergrounding project was delayed due to easement and permitting issues.
 - b. That delay was documented in HWT's December 12, 2020, Change Order requesting delayed implementation.⁷⁴

⁷¹ Id.

⁶⁸ These figures may differ from planned expenditures reported by HWT in other submitted documents.

⁶⁹ HWT EC ARC, page 3.

⁷⁰ Id.

⁷² Id.

⁷³ HWT EC ARC, page 2.

⁷⁴ Horizon West Transmission, LLC's Change Orders Report Submitted Pursuant to Resolution WSD-002. https://www.horizonwesttransmission.com/content/dam/horizonwest/us/en/pdf/HWT_ChangeOrdersReport.pdf

- c. Energy Safety approved that Change Order on February 8, 2021.75
- 3. HWT's reported actual spend was greater than planned spend because HWT included expenditures from additional wildfire mitigation measures that HWT was still evaluating at the time that its 2020 WMP was submitted.⁷⁶
 - a. The additional spend includes the initiatives that were reported as being under further evaluation by HWT in its 2020 WMP (see Section 4.2).
- 4. HWT had not deployed PSPS as of the date it submitted its EC ARC (March 31, 2021).⁷⁷
 - a. HWT expected that it will seldom, if ever, need to implement PSPS.⁷⁸

5.2 Independent Evaluator Review

HWT selected BVNA as the independent evaluator to assess its compliance with the 2020 WMP. BVNA issued its HWT IE ARC on July 1, 2021. Energy Safety carefully weighed the quality and utility of the HWT IE ARC when evaluating HWT's compliance with its approved 2020 WMP.

BVNA reviewed 14 initiatives and had no findings of noncompliance. ⁷⁹ The 14 initiatives reviewed by BVNA included several of the initiatives under further evaluation, as presented in Section 4.2. The results of BVNA's review are listed below. ⁸⁰

Table 3: Summary of HWT IE ARC Findings

2020 WMP Initiative Number	Initiative Name	IE Finding
5.3.1	Third-Party Wildfire Mitigation Assessment	Activity Completed
5.3.2	One (1) installed Weather Station	Activity Completed
5.3.2	Four (4) locations, a total of (8) installed HD Cameras	Activity Completed
5.3.2	Transformer Oil Gas Monitoring	Activity Completed
5.3.2	Undergrounding Cable Monitoring	In Progress
5.3.2	Fire Risk Index Development	Activity Completed
5.3.2	Fixed Foam Deluge System or Portable Foam System	Activity Completed

⁷⁵ WSD Action Statement, Subject: Horizon West's December 11, 2020 Change Order Report issued on February 8, 2021. https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2020/wsd-response-to-horizon-west-december-11-2020-change-order.pdf

⁷⁶ HWT EC ARC, page 4.

⁷⁷ Id.

⁷⁸ Id

⁷⁹ See section 4.2 for an explanation of differences in the number of HWT's reported 2020 WMP initiatives.

⁸⁰ HWT IE ARC, page 18.

2020 WMP Initiative Number	Initiative Name	IE Finding
5.3.3	10 foot Tall Concrete Perimeter Wall	Activity Completed
5.3.3	Transformer Seismic	In Progress
5.3.3	Flame-Suppressing Containment Stone under Transformers	In Progress
5.3.3	Undergrounding Electric Lines	In Progress
5.3.4	Monthly Equipment Inspections	Activity Completed
5.3.5	Monthly Vegetation Inspections Around Equipment	Activity Completed
5.3.6	Private Fire Brigade for Fire Suppression Services	Activity Completed

BVNA also reviewed wildfire mitigations that it did not recognize from HWT's 2020 WMP. Specifically, BVNA noted that HWT had submitted a Fire Protection Plan to the San Diego County Fire Authority and installed a 12,278-gallon water storage tank.⁸¹

Ultimately, BVNA found that HWT had either completed or was in the process of completing all the wildfire mitigation initiatives outlined in its 2020 WMP.⁸² HWT did not respond to the IE ARC.

5.3 Inspections

Energy Safety conducted a total of ten inspection activities of HWT's infrastructure in consideration for this ARC.⁸³ While Energy Safety conducted those inspection activities in 2021, Energy Safety's inspection scope was based on HWT's 2020 WMP. For these inspection activities, Energy Safety examined HWT's weather station, camera, the perimeter wall around the facility, and vegetation management around the substation.

Energy Safety found no defects during these inspection activities.

5.4 Performance Metrics Analysis

Relying upon data timely submitted by HWT, Energy Safety undertook an analysis of HWT's WMP initiative performance. Energy Safety undertook this analysis to ensure that HWT completed its 2020 initiatives as stated in its WMP.

⁸¹ HWT IE ARC, page 17.

⁸² HWT EC ARC, page 18.

⁸³ Energy Safety Inspection Report IAG_HWT_2021_009.

5.4.1 Initiative Performance Analysis

Energy Safety analyzed whether HWT achieved its WMP initiative targets. To conduct this analysis, Energy Safety relied upon HWT's Q4 2020 Quarterly Initiative Update (QIU) submission from April 1, 2021.

Energy Safety requires electrical corporations to submit a QIU to track progress on implementation of their WMP initiatives. The purpose of the QIU is for both the electrical corporation and Energy Safety to have a holistic understanding of the electrical corporation's annual targets and projected quarterly progress towards completion of each initiative through the course of the WMP compliance period. In addition to projected progress, electrical corporations report actual progress for each initiative quarterly; this information enables Energy Safety to track each electrical corporation's compliance with its initiative targets throughout the year.

Energy Safety reviewed the Q4 2020 QIU report submitted by HWT on April 1, 2021, to verify the completion of HWT's 2020 WMP initiatives and its adherence to the Compliance Operational Protocols.

As previously discussed, HWT grouped distinct activities together as four initiatives in its 2020 WMP. However, HWT reported those activities as six separate initiatives in its 2020 Q4 QIU. Additionally, two of the initiatives that HWT reported in its 2020 Q4 QIU (Initiative 5.3.2.2 – Transformer Oil Gas Monitoring and 5.3.3.12 – Transformer Seismic Hardening) were included in the list of initiatives that HWT was evaluating further at the time it submitted its 2020 WMP (see Section 4.2). The remaining two initiatives were not reported in HWT's 2020 WMP at all. For this analysis, Energy Safety's review only considered the initiatives reported in HWT's 2020 WMP.

In conducting its analysis, Energy Safety found that HWT had no initiatives with quantitative targets. Energy Safety's analysis was limited to HWT's qualitative targets for its initiatives and is presented in Table 4 below, which represents HWT's initiative progress as of its 2020 Q4 QIU submission.

Of the initiatives listed, only the undergrounding installation project had to be delayed. The delay in the undergrounding project was approved by Energy Safety following a HWT Change Order requesting such delay.⁸⁴

⁸⁴ February 8, 2021, WSD Action Statement.

Initiative Number	Utility Initiative Name	Status	Corrective Actions If Delayed
5.3.4.2	Asset Inspections	Complete ⁸⁵	N/A
5.3.5.3	Vegetation Inspections	Complete ⁸⁶	N/A
5.3.3.12	Concrete perimeter wall	Complete	N/A
5.3.3.16	Undergrounding	In Progress	Delayed due to regulatory delays
5.3.2.1	Weather station	Complete	N/A
5.3.2.2	Transformer oil gas monitoring	Complete	N/A
5.3.3.12	Transformer Hardening	In Progress	N/A
5.3.2.2	Camera	Complete	N/A

Table 4: HWT 2020 Qualitative Target Initiatives

5.5 Wildfire and Risk Reduction Outcomes

Energy Safety requires electrical corporations to report data, such as ignitions in the HFTD, that will enable Energy Safety to, over time, assess whether an electrical corporation's wildfire mitigation planning activities successfully achieve the primary objective of a WMP – reducing catastrophic wildfire risk and reliance on PSPS. As noted earlier in this document, it is not enough to solely evaluate whether an electrical corporation met its targets for implementing specific initiatives if ultimately the electrical corporation did not reduce the risk of catastrophic wildfires.

In 2020, Energy Safety evaluated a variety of metrics (calculations based on data provided) to set a baseline that can be measured against in future years, including several metrics adopted in the 2020 WMP Guidelines.⁸⁷ In addition to these metrics, Energy Safety also utilized the knowledge and expertise gained since the adoption of the 2020 WMP Guidelines to present additional metrics correlated to HWT's wildfire risk. Where data was available and applicable, Energy Safety evaluated different permutations of ignition risk metrics to also account for geographical risk factors, as indicated by HFTD tiers, and causal information.

Energy safety relied upon data reported in an electrical corporation's 2020 WMP as well as a Quarterly Data Report (QDR) submission from May 3, 2021. However, as discussed in this ARC,

⁸⁵ HWT reported this initiative as "In Progress" in its 2020 Q4 QIU, but HWT also reported that it met its target of conducting monthly inspections. Energy Safety considered this initiative to be complete.

⁸⁶ HWT reported this initiative as "In Progress" in its 2020 Q4 QIU, but HWT also reported that it met its target of conducting monthly inspections. Energy Safety considered this initiative to be complete.

⁸⁷ See Attachment 4 of CPUC Resolution WSD-001, titled "WMP Metrics."

the limited size and scale of HWT's operations, combined with the inherent hardening against wildfire risk as a function its infrastructure being newly constructed and mostly underground, much of the data required by Energy Safety was not applicable to HWT. For example, HWT does not have any retail customers, and thus does not foresee circumstances in which it would issue a PSPS event.88 In addition, because a great majority of HWT's infrastructure is underground, red flag warning (RFW) 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 2020.

6.0 DISCUSSION

Energy Safety considered the totality of the evidence before determining whether an electrical corporation substantially complied with its WMP. Energy Safety found that HWT substantially complied with its 2020 WMP. In its evaluation of HWT's compliance with its 2020 WMP, Energy Safety considered the following factors:

- The small scope and scale of HWT's operations.
- The topology of HWT's infrastructure and the inherent wildfire risk reduction hardening it provides.
- HWT's lack of retail customers and distribution assets with no foreseeable need for PSPS use.
- The lack of any ignitions or other risk events reported to date.

Below, Energy Safety presents its assessment of HWT's performance to each of the evaluation criteria set forth in the Compliance Framework followed by an assessment of the systemic issues.

6.1 Completion of 2020 WMP Initiatives

HWT's 2020 WMP contained four initiatives of which HWT was able to complete three. The fourth initiative, undergrounding of its 115-foot overhead transmission line, was delayed due to permitting and easement issues. However, in accordance with Energy Safety's direction, 89 HWT submitted a Change Order in which it requested to modify the deployment of its undergrounding project from 2020 to 2021. Energy Safety reviewed and approved that Change Order on February 8, 2021. Therefore, Energy Safety does not consider HWT's failure

⁸⁸ HWT 2020 WMP, page 11.

⁸⁹ CPUC Resolution WSD-002, Ordering Paragraph 10, page 46.

to complete its undergrounding project in 2020 as noncompliance with its approved 2020 WMP. Energy Safety finds that HWT completed its initiatives, as presented in its approved 2020 WMP. The IE ARC and EC ARC further corroborate this finding.

6.2 Achieving 2020 WMP Objectives

Energy Safety's analysis of HWT's performance to its objectives was broken into three sections. First, Energy Safety discussed objectives set to be achieved before the upcoming (2020) wildfire season. It then presented its analysis on performance prior to the next annual update (2021). Finally, Energy Safety presented its findings on HWT's performance to its overall stated objective to comply with California Public Utilities Code section 8386 at its Suncrest location, to have a world class fire-protection infrastructure, and to have facilities that account for several operational risks that are present in California.⁹⁰

Before the 2020 wildfire season, HWT committed to the following:

• In preparation of the Suncrest Facility becoming operational, one of the objectives was to implement all fire safety protocols, measures, and plans that have been prepared for the facility.⁹¹

Energy Safety finds that HWT largely achieved this goal. For example, HWT conducted monthly inspections of its facilities. Additionally, HWT contracted with a private fire brigade that is trained to suppress electrical fires and provide onsite fire suppression capabilities.

Before the next annual update (2021), HWT committed to the following:

- To reduce the risk of ignition, the primary objective before the 2021 WMP filing was to build, operate, and maintain its facilities according to established fire prevention procedures and strategies.
- HWT would periodically evaluate new technologies, materials, and methods for further reducing fire risk.⁹²

HWT accomplished its first objective, save for completing the previously discussed undergrounding project. HWT constructed a perimeter wall at its facility to reduce the potential for onsite ignitions to spread to nearby vegetation or for offsite ignitions to adversely impact HWT's operations. Regarding the second objective, HWT's quarterly reporting included initiative activities that were new to the 2021 WMP, such as installing seismic pads and flame-suppressing stones at transformers. Further, in the IE ARC, BVNA

⁹⁰ HWT 2020 WMP, page 32.

⁹¹ HWT 2020 WMP, page 33.

⁹² Id.

noted that HWT had also submitted a Fire Protection Plan that was approved by the San Diego County Fire Authority and installed a 12,278-gallon water storage tank.⁹³ These actions suggested that HWT was considering additional activities that would reduce fire risk at its facility.

Overarching Objective:

HWT generally satisfied its overarching objective. While HWT had some issues presenting its wildfire mitigation plans and strategies within the framework of the 2020 WMP Guidelines, as discussed in Section 4.2, its 2020 WMP met the applicable statutory requirements of California Public Utilities Code section 8386. In addition, Energy Safety finds that HWT's efforts to continually assess and mitigate its identified wildfire risks, as evidenced by HWT completing additional initiatives in 2020 that were presented as potential mitigations under evaluation, is consistent with its objective to ensure its infrastructure considers the operational risks of its Suncrest Facility.

6.3 Reducing Wildfire Risk

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 mitigations it needed to implement and several others to further evaluate. As discussed in Section 6.1 above, HWT mostly completed these initiatives and had reasonable justification for any incomplete work. In addition, HWT was able to complete several initiatives it considered for further evaluation. 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 2020 WMP was a further reduction of its wildfire risk than would have been the case absent implementation. This conclusion is further supported by Energy Safety's inspection of HWT's Suncrest Facility, which yielded no findings and reached conclusions similar to HWT's independent evaluation for WMP compliance.

7.0 CONCLUSION

After considering all the sources of information before it, Energy Safety finds that HWT substantially complied with its 2020 WMP during the compliance period. Energy Safety acknowledges that HWT had limited wildfire risk exposure but still undertook significant

⁹³ HWT IE ARC, page 17.

efforts to assess and implement mitigations to reduce its wildfire risk, and in most instances, HWT achieved its objectives and targets.

DATA DRIVEN FORWARD-THINKING INNOVATIVE SAFETY FOCUSED



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Appendix -LIST OF PUBLIC DOCUMENTS REFERENCED:

1. HWT 2020 WMP (Horizon West 2020 Wildfire Mitigation Plan Revised – R18100007 Updated March 4, 2020)

https://www.horizonwesttransmission.com/content/dam/horizonwest/us/en/pdf/Horizon%20West%202020%20Wildfire%20Mitigation%20Plan-R1810007.pdf

- Compliance Operational Protocols, dated February 16, 2021 https://energysafety.ca.gov/wp-content/uploads/docs/misc/wsd/2021.02.16-compliance-operational-protocols.pdf
- Horizon West 2020 Wildfire Mitigation Plan Change Order
 https://www.horizonwesttransmission.com/content/dam/horizonwest/us/en/pdf/HW
 T ChangeOrdersReport.pdf
- 4. HWT Final Action Statement

https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2020/hwt-action-statement-final-20200610.pdf

- 5. HWT Annual Report on Compliance https://www.horizonwesttransmission.com/content/dam/horizonwest/us/en/pdf/HW T 2020%20ARC 20210331.pdf
- 6. HWT 2020 Q4 Quarterly Initiative Update https://energysafety.ca.gov/wp-content/uploads/docs/misc/wsd/hwt-2020-q4-qiu.xlsx
- CPUC Resolution WSD-001 https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M324/K966/324966978.PDF
- 8. CPUC Resolution WSD-002 https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M340/K859/340859823.PDF
- 9. CPUC Resolution WSD-009 https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2020/docs/340950840.pdf
- 10. CPUC Resolution WSD-012

https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M351/K834/351834801.PDF

- 11. Final Independent Evaluator Annual Report on Compliance https://efiling.energysafety.ca.gov/Lists/DocketLog.aspx?docketnumber=2021-IE
- 12. CPUC's General Order 95 https://ia.cpuc.ca.gov/gos/originalgo95/OriginalGO95 Start page.htm
- 13. 2020 WMP Guidelines

https://energysafety.ca.gov/wp-content/uploads/docs/misc/docket/322133494.pdf

- 14. Horizon West Transmission 2020 Substantial Vegetation Management Letter.pdf, sent to Horizon West Transmission on August 25, 2022 https://efiling.energysafety.ca.gov/search.aspx?docket=2020-SVM
- 15. Attachment 4 of CPUC Resolution WSD-001, titled "WMP Metrics." https://energysafety.ca.gov/wp-content/uploads/docs/misc/docket/322232145.pdf