

#### OFFICE OF ENERGY INFRASTRUCTURE SAFETY

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January 30, 2024

To: 2023-2025 Wildfire Mitigation Plans docket (2023-2025-WMPs)

Subject: Decision on Horizon West Transmission's 2023-2025 Wildfire Mitigation Plan

Dear Wildfire Mitigation Plan stakeholders:

Enclosed is the Office of Energy Infrastructure Safety's (Energy Safety's) Decision approving Horizon West Transmission's 2023-2025 Wildfire Mitigation Plan.

On December 8, 2023, a draft of this Decision was published on Energy Safety's website and released to Energy Safety's 2023-2025 Wildfire Mitigation Plans service list for public review and comment.

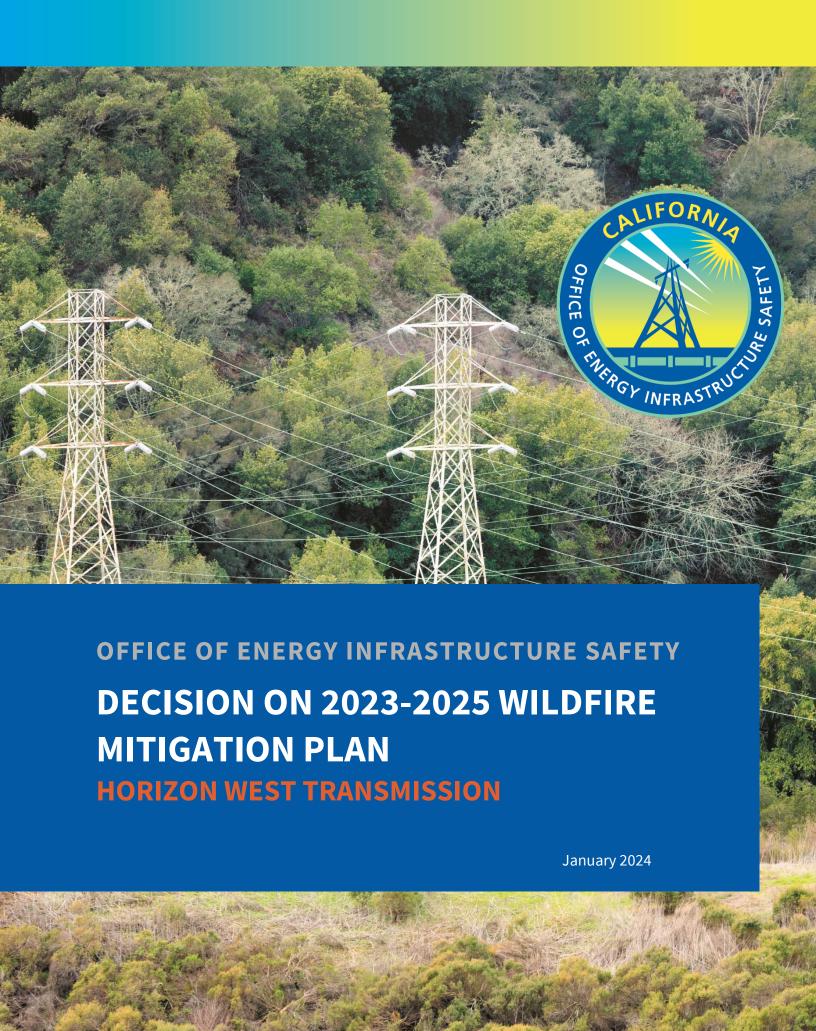
Opening comments on the draft Decision were due on January 2, 2024, and reply comments were due on January 12, 2024. No stakeholder comments were received during either of these comment periods. Energy Safety made non-substantive changes to correct typographical errors in the text.

Sincerely,

Shannon O'Rourke

Deputy Director | Electrical Infrastructure Directorate

Office of Energy Infrastructure Safety



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## 1. Executive Summary

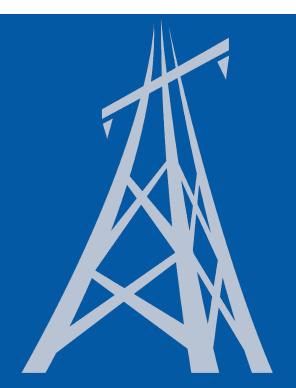
The Office of Energy Infrastructure Safety (Energy Safety) works to ensure electrical corporations take effective actions to reduce utility-related wildfire risk. Pursuant to Public Utilities Code section 8386.3(a), this Decision serves as Energy Safety's assessment and approval of Horizon West Transmission (HWT) 2023-2025 Wildfire Mitigation Plan, submitted on May 9, 2023.

Independent transmission owners are transmission-only electrical corporations with no enduse customers. HWT is an independent transmission owner. These corporations have smaller assets and footprints compared to the large investor-owned utilities and small and multi-jurisdictional utilities in California. HWT's assets within California consist of a substation, the Suncrest Facility, located 40 miles east of San Diego. The Suncrest Facility is connected to a mile-long undergrounded 230-kilovolt single-circuit transmission line located within San Diego Gas & Electric Company's territory.

HWT's Wildfire Mitigation Plan is comparable to, and at times exceeds, the plans of the other independent transmission owners. For example, within its Wildfire Mitigation Plan, HWT is strong in its grid design, operations, maintenance, and wildfire mitigation strategy. Regarding grid design, HWT has completed multiple hardening efforts over the last two years, addresses work orders in a timely fashion, and continues to perform monthly as well as supplemental inspections ahead of Red Flag Warning days. Regarding wildfire mitigation strategy, HWT uses practices such as remote sensor monitoring, on-site cameras, and third-party wildfire tracking tools. Additionally, HWT plans to increase the granularity of its real-time wildfire tracking tools using satellite data.

Despite its strengths, HWT lacks a formal process for sharing best practices. In future iterations of its plan, Energy Safety expects HWT to begin documenting examples of how it shares best practices.





## 2. Introduction and Background

Horizon West Transmission (HWT) submitted its 2023-2025 Wildfire Mitigation Plan (Base WMP or WMP) covering a three-year term from 2023 through the end of 2025 (the current WMP cycle) on May 9, 2023, in response to the reporting requirements set forth in Energy Safety's 2023-2025 WMP Technical Guidelines (Technical Guidelines)<sup>1</sup> and the processes set forth in Energy Safety's WMP Process and Evaluation Guidelines (Process Guidelines).<sup>2</sup>

Pursuant to Public Utilities Code section 8386.3(a), this Decision is Energy Safety's assessment of HWT's 2023-2025 WMP.

Energy Safety approves HWT's 2023-2025 WMP. In 2024, HWT must submit a 2025 Update consistent with the 2025 WMP Guidelines. Energy Safety will approve or deny HWT's 2025 Update to its Base Plan.

## 2.1 Consultation with California Department of Forestry and Fire Protection

The Office of the State Fire Marshal is part of the California Department of Forestry and Fire Protection (CAL FIRE). Public Utilities Code section 8386.3(a) requires Energy Safety to consult with the Office of the State Fire Marshal in reviewing electrical corporations' WMPs and WMP Updates. The Office of the State Fire Marshal provided meaningful consultation and input on the evaluation, but this Decision is solely an action of Energy Safety and not the Office of the State Fire Marshal or CAL FIRE.

#### 2.2 Stakeholder Comments

Energy Safety invited stakeholders, including members of the public, to provide comments on the utilities' 2023-2025 WMPs. Opening comments on HWT's Base WMP were due on June 29, 2023, and reply comments were due on July 10, 2023. No comments directed toward ITO WMPs were received, see Appendix C for more information.

<sup>&</sup>lt;sup>1</sup>Energy Safety's 2023-2025 Wildfire Mitigation Plan Technical Guidelines (Dec. 2022) (hereafter Technical Guidelines) (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53286&shareable=true, accessed May 5, 2023).

<sup>&</sup>lt;sup>2</sup> Energy Safety's 2023-2025 Wildfire Mitigation Plan Process and Evaluation Guidelines (Dec. 2022) (hereafter Process Guidelines) (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53287&shareable=true, accessed May 5, 2023).

<sup>&</sup>lt;sup>3</sup> In this document, "utility" should be understood to mean "electrical corporation."

## 3. Energy Safety's 2023 Evaluation Process

Energy Safety issued the following guidelines for electrical corporations' 2023-2025 WMPs:

- **2023-2025 WMP Technical Guidelines**, which sets forth substantive and procedural requirements for electrical corporations to prepare and submit their WMPs.<sup>4</sup>
- ITO Supplement to the 2023-2025 WMP Technical Guidelines, which establishes the modified reporting requirements for independent transmission operators (ITOs).<sup>5</sup>
- 2023-2025 WMP Process and Evaluation Guidelines, which outlines the process for Energy Safety's evaluation of WMPs, details the public participation process, and establishes submission requirements for the electrical corporations. 6
- 2023-2025 Maturity Model and Survey, which provides a quantitative method for assessing electrical corporation wildfire risk mitigation capabilities and examining how electrical corporations propose to continuously improve in key areas of their WMPs.<sup>7, 8</sup>

The WMP evaluation process includes some or all the following steps for each utility, which are described in more detail in the remainder of this section:

• Completeness check of the utilities' WMP pre-submissions.

(https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53393&shareable=true, accessed May 5, 2023);

2023-2025 Electrical Corporation Wildfire Mitigation Maturity Model (Second Revised Final, Feb. 2023)

(https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53394&shareable=true, accessed May 5, 2023);

2023 Electrical Corporation Wildfire Mitigation Maturity Survey (Second Revised Final, Feb. 2023)

(https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53395&shareable=true, accessed May 5, 2023). This is the version that electrical corporations saw when filling out the survey.

(https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53708&shareable=true, accessed May 5, 2023). This is the version used by Energy Safety when scoring the survey.

<sup>&</sup>lt;sup>4</sup> <u>Technical Guidelines</u> (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53286&shareable=true, accessed May 5, 2023).

<sup>&</sup>lt;sup>5</sup> Energy Safety's Independent Transmission Operator Supplement to the 2023-2025 Wildfire Mitigation Plan Technical Guidelines (Dec. 2022)

<sup>(</sup>https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53290&shareable=true, accessed May 5, 2023).

<sup>&</sup>lt;sup>6</sup> <u>Process Guidelines</u> (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53287&shareable=true, accessed May 5, 2023).

<sup>&</sup>lt;sup>7</sup> Second Revised Final Maturity Model and Maturity Survey Letter (Feb. 2023)

<sup>&</sup>lt;sup>8</sup> 2023 Electrical Corporation Wildfire Mitigation Maturity Survey (Revised Final, April 2023)

- Energy Safety's evaluation of utilities' WMPs, including consideration of Maturity Survey results, areas where the utility has progressed, and areas where the utility must improve.
- Issuance of a Revision Notice if Energy Safety identifies critical issues associated with a utility's WMP.
- Publication of Energy Safety draft Decision.
- Publication of Energy Safety's Decision approving or denying a utility's WMP.
- Various forms of public participation throughout the process.

### 3.1 WMP Completeness

The first step in Energy Safety's WMP evaluation is a completeness check. HWT provided its WMP pre-submission to Energy Safety on March 6, 2023.

Energy Safety determined that HWT's WMP pre-submission did not satisfy the completeness check and notified HWT on March 27, 2023, of what information was required to make its WMP complete.

HWT submitted its revised Base WMP on May 9, 2023.

## 3.2 Maturity Model and Survey

Energy Safety used the 2023-2025 Electrical Corporation Wildfire Mitigation Maturity Model <sup>10</sup> (Maturity Model) and 2023 Electrical Corporation Wildfire Mitigation Maturity Survey <sup>11</sup> (Maturity Survey), which together provided a quantitative method to assess the maturity of each utility's wildfire risk mitigation program. The current version of the Maturity Model is an update to the original version that Energy Safety used to assess utility maturity during the first WMP cycle (2020-2022).

The Maturity Model consists of 37 individual capabilities describing the ability of electrical corporations to mitigate wildfire risk and Public Safety Power Shutoff (PSPS) risk within their service territory. The 37 capabilities are aggregated into seven categories. Maturity levels range from 0 (below minimum requirements) to 4 (beyond best practice). For each utility, Energy Safety calculated maturity levels for each capability, each category, five cross-

(https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53287&shareable=true, accessed May 5, 2023).

<sup>&</sup>lt;sup>9</sup> Process Guidelines, Section 4.1, pages 3-5

<sup>&</sup>lt;sup>10</sup> 2023-2025 Electrical Corporation Wildfire Mitigation Maturity Model (Second Revised Final, Feb. 2023) (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53394&shareable=true, accessed May 5, 2023).

<sup>&</sup>lt;sup>11</sup> 2023 Electrical Corporation Wildfire Mitigation Maturity Survey (Revised Final, April 2023) (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53708&shareable=true, accessed May 5, 2023). This is the version used by Energy Safety when scoring the survey.

category themes, and the overall WMP, based on the utility's answers to Maturity Survey questions and the scoring system described in the Maturity Model.

Energy Safety evaluated each utility's reported and projected wildfire mitigation maturity in the context of the utility's corresponding current and planned initiatives described in its WMP.

The results from the 2023 Maturity Survey establishes a baseline for maturity as well as the utility's anticipated progress over this three-year plan period.

Energy Safety assessed the results of each utility's Maturity Survey and discussed how the utility is progressing—or not—in maturity relative to each mitigation initiative. HWT's results specific to each initiative are discussed in Sections 6 through 9 of this Decision, and overall results for HWT can be found in Appendix E.

## 3.3 Areas for Continued Improvement

Energy Safety's evaluation of the 2023-2025 WMPs focused on each utility's strategies for reducing the risk of utility-related ignitions. Energy Safety assessed the electrical corporation's progress on areas for improvement resulting from 2022 WMP evaluations, evaluating the feasibility of its strategies, and measuring year-to-year trends. As a result of this evaluation, Energy Safety identified areas where the utility must continue to improve its wildfire mitigation capabilities in future plans. <sup>12</sup>

Areas for continued improvement relative to each mitigation initiative are discussed in Sections 6 through 9 of this Decision. Specific areas for continued improvement prescribed by Energy Safety in 2023, including specific required progress, are listed in Section 11.

#### 3.4 Revision Notice

Public Utilities Code section 8386.3(a) states, "Before approval, [Energy Safety] may require modifications of the [WMP]." If Energy Safety requires modifications to a WMP, it does so by issuing a Revision Notice to a utility. 13

Energy Safety did not issue HWT a Revision Notice for its 2023-2025 WMP.

(https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53287&shareable=true, accessed May 5, 2023).

(https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53287&shareable=true, accessed May 5, 2023).

<sup>&</sup>lt;sup>12</sup> Process Guidelines, Section 4.7

<sup>&</sup>lt;sup>13</sup> Process Guidelines, Section 4.4, page 6

#### 3.5 Decision

In its evaluation of an electrical corporation's 2023-2025 WMP, Energy Safety considers the areas where the electrical corporation must improve, as well as the progress it plans to achieve in its areas of strength. As a result of its evaluation, Energy Safety determines whether the 2023-2025 WMP is approved or denied. <sup>14</sup> If the WMP is approved, Energy Safety finds the electrical corporation's WMP is sufficient and expects it to complete mitigation initiatives as described in its WMP. An approved WMP demonstrates adequate progress toward wildfire mitigation, while still showing areas where the electrical corporation must improve.

If the WMP is denied, Energy Safety finds the electrical corporation's WMP is not satisfactory or does not include sufficient detail within a section or sub-section of the WMP. There may still be areas of strength within a denied WMP, but the issues are critical enough to warrant denial.

Energy Safety recognizes that planning for wildfire risk is a maturing capability and expects that electrical corporations will continue to improve year over year. Therefore, Energy Safety's Decision includes areas for continued improvement, identifying areas where the utility must continue to mature in its capabilities.

Energy Safety also highlights in its Decision areas of strength where the electrical corporation plans noteworthy improvements to its wildfire mitigation programs, sets ambitious and feasible targets for its programs, and/or sets out to achieve more than what is required.

Pursuant to Public Utilities Code section 8386.3(a), this Decision is the totality of Energy Safety's review of HWT's 2023-2025 WMP. HWT's 2023-2025 WMP is approved.

## 3.6 Change Order Requests

For information regarding Energy Safety's change order process, refer to Section 12 of the Process Guidelines.

<sup>&</sup>lt;sup>14</sup> Process Guidelines, Section 5.3, page 10

# 4. Introductory Sections of the WMP

In response to Sections 1 through 4 of the Technical Guidelines, HWT provided basic information regarding persons responsible for executing the plan and adherence to statutory requirements. <sup>15</sup>

HWT provided the required information for these sections:

- Section 1: Executive Summary (Summary of the 2020–2022 WMP Cycle, Summary of the 2023–2025 Base WMP).
- Section 2: Responsible Persons (titles and credentials for: executive-level owner with overall responsibility; program owners with responsibility for each of the main components of the plan; as applicable, general ownership for questions related to or activities described in the WMP).
- Section 3: Statutory Requirements Checklist:
  - This section provides a checklist of the statutory requirements for a WMP as detailed in Public Utilities Code section 8386(c). <sup>16</sup> By completing the checklist, the electrical corporation affirms that its WMP addresses each requirement. HWT completed this checklist.
- Section 4: Overview of WMP (Primary Goal; WMP Objectives; Proposed Expenditures; Risk-Informed Framework).

## 4.1 HWT's Wildfire Mitigation Expenditures

Section 4.3 of the Technical Guidelines requires electrical corporations to summarize projected expenditures for the current WMP cycle, as well as planned and actual expenditures from the previous WMP cycle (i.e., 2020–2022).<sup>17</sup>

(https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53286&shareable=true, accessed May 5, 2023).

(https://leginfo.legislature.ca.gov/faces/codes\_displaySection.xhtml?sectionNum=8386.&lawCode=PUC, accessed May 9, 2023).

<sup>&</sup>lt;sup>15</sup> Technical Guidelines, Sections 1 through 4, pages 6-14

<sup>&</sup>lt;sup>16</sup> Public Utilities Code section 8386

<sup>&</sup>lt;sup>17</sup> Energy Safety's WMP evaluation and decision on a WMP is not an approval of, or agreement with, costs listed in the WMP.

HWT provided all required information regarding expenditures. A summary of this information is presented below. Figure 4.1-1 presents actual and planned WMP expenditures for HWT.

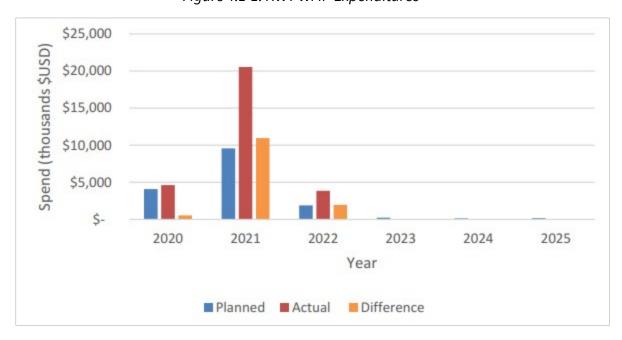


Figure 4.1-1. HWT WMP Expenditures 18 19

<sup>&</sup>lt;sup>18</sup> HWT's 2023-2025 WMP, Figure HWT 4.3-1 "Summary of Expenditures," page 30.

<sup>&</sup>lt;sup>19</sup> Figure 4.1-1 has a small amount of planned expenditures for 2024 and 2025 because HWT does not have any current proposed mitigation initiatives in its WMP for the 2023-2025 WMP cycle. HWT's plan objectives are to: 1) maintain its currently emplaced processes and procedures with respect to fire safety, mitigation and preparedness to minimize the likelihood of an ignition event from its facility; 2) periodically evaluate new technologies, materials, and methods for further reducing fire risk at HWT Facilities; and 3) implement wildfire mitigation strategies and design criteria as soon as practical to any facility that HWT constructs or acquires during the 2023-2025 WMP cycle (HWT's 2023-2025 WMP, page 28).

# 5. Overview of the Operational Area

In response to Section 5 of the Technical Guidelines, HWT provided a high-level overview of its operational area that includes key characteristics of its electrical infrastructure, environmental settings, and community values at risk.<sup>20</sup>

Below are Energy Safety's summary and findings regarding HWT's reporting on its operational area.

## **5.1** Service Territory

Per the Independent Transmission Operator Supplement to the 2023-2025 Wildfire Mitigation Plan Technical Guidelines (ITO Supplement), the reporting requirements associated with Sections 5.1, "Service Territory," of the 2023-2025 WMP Technical Guidelines do not apply to ITOs. <sup>21</sup>

## **5.2** Electrical Infrastructure

Section 5.2 of the Technical Guidelines requires HWT to provide a high-level description of its infrastructure, including all power generation facilities, transmission and distribution lines and associated equipment, substations, and other major equipment.<sup>22</sup>

HWT provided a description of its current electrical infrastructure and a table with an overview of its key electrical equipment, including one substation, one pole, and 0.95 circuit miles of underground transmission and distribution lines, all in the Tier 3 high fire threat district (HFTD).<sup>23</sup>

<sup>&</sup>lt;sup>20</sup> <u>Technical Guidelines</u>, Section 5, "Overview of the Service Territory," pages 15-29 (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53286&shareable=true, accessed May 5, 2023).

<sup>&</sup>lt;sup>21</sup> Energy Safety's Independent Transmission Operator Supplement to the 2023-2025 Wildfire Mitigation Plan Technical Guidelines (Dec. 2022)

<sup>(</sup>https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53290&shareable=true, accessed May 5, 2023).

<sup>&</sup>lt;sup>22</sup> <u>Technical Guidelines</u>, Section 5.2, "Electrical Infrastructure," pages 16-17 (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53286&shareable=true, accessed May 5, 2023).

<sup>&</sup>lt;sup>23</sup> HWT's 2023-2025 WMP, Table 5-2 "Overview of Key Electrical Equipment," page 38.

## **5.3** Environmental Settings

Section 5.3 of the Technical Guidelines requires HWT to provide a high-level overview of the environmental settings within its service territory.<sup>24</sup>

#### 5.3.1 Fire Ecology

Per the ITO Supplement, in Section 5.3.1, "Fire Ecology," ITOs must provide a brief narrative describing the fire ecology or ecologies adjacent to their assets, rather than across their service territory. <sup>25</sup>

HWT provided a narrative describing the vegetative coverage across its operational area. <sup>26</sup> HWT additionally provided a table describing the existing vegetation types in HWT's operational area. <sup>27</sup>

#### 5.3.2 Catastrophic Wildfire History

Section 5.3.2 of the Technical Guidelines requires HWT to provide a brief narrative summarizing its wildfire history for the past 20 years as recorded by the electrical corporation, CAL FIRE, or another authoritative source.<sup>28</sup>

HWT reported zero catastrophic wildfires that were attributed to its facilities or equipment from 2015-2022. Energy Safety defines catastrophic wildfires as those that resulted in at least one death, damaged over 500 structures, or burned over 5,000 acres.

<sup>&</sup>lt;sup>24</sup> <u>Technical Guidelines</u>, Section 5.3, "Environmental Settings," pages 17-26 (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53286&shareable=true, accessed May 5, 2023).

<sup>&</sup>lt;sup>25</sup> Energy Safety's Independent Transmission Operator Supplement to the 2023-2025 Wildfire Mitigation Plan Technical Guidelines (Dec. 2022)

<sup>(</sup>https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53290&shareable=true, accessed May 5, 2023).

<sup>&</sup>lt;sup>26</sup> HWT's 2023-2025 WMP, pages 29 & 39.

<sup>&</sup>lt;sup>27</sup> HWT's 2023-2025 WMP, Table 5.3-1 "[Fern/Orchard] Substation Existing Broad and Society of American Foresters Vegetation Types," page 29 & 39-40.

<sup>&</sup>lt;sup>28</sup> <u>Technical Guidelines</u>, Section 5.3.2, "Catastrophic Wildfire History," pages 18-20 (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53286&shareable=true, accessed May 5, 2023).

## 5.4 Community Values at Risk

Per the ITO Supplement, the reporting requirements associated with Sections 5.4.1, "Urban, Rural, and Highly Rural Customers," and 5.4.2, "Wildland-Urban Interfaces," of the 2023-2025 WMP Technical Guidelines do not apply to ITOs.<sup>29</sup>

Also, per the ITO Supplement, in Section 5.4.3, "Communities at Risk," ITOs must provide a high-level overview of individuals at risk, communities at risk, customers with access and functional needs (AFN) and social vulnerability, and communities vulnerable because of single access/egress conditions adjacent to their assets, rather than within their service territory.

HWT's Suncrest Facility is located within a remote and scarcely populated area of eastern San Diego County and has no residential structures within the immediate vicinity or adjacent to the Facility.

### **5.4.1** Environmental Compliance and Permitting

Section 5.4.5 of the Technical Guidelines requires HWT to summarize how it ensures it complies with applicable environmental laws and permits related to the implementation of its WMP, including its procedures/processes to ensure compliance, roadblocks it has encountered, and any notable changes to its environmental compliance and permitting procedures since the last WMP submission.<sup>30</sup>

New construction and/or large maintenance projects must comply, as necessary, with the California Environmental Quality Act, the Clean Water Act (sections 401 and 404), California Fish and Game Code (section 1602), the National Environmental Policy Act, the National Historic Preservation Act, Forest Practice Act and Rules, among other federal, state, and local requirements. Utilities must also obtain permits from land management agencies such as the National Forest Service, Bureau of Land Management, National Park Service, California Coastal Commission, among others.

The linear nature of utility infrastructure often warrants several permits for one project, including different permit conditions, environmental requirements, and post-work reporting requirements. Compliance with permitting requirements add time and complexity to project planning, cost and mitigations related to environmental analysis and impact, and sometimes

<sup>&</sup>lt;sup>29</sup> Energy Safety's Independent Transmission Operator Supplement to the 2023-2025 Wildfire Mitigation Plan Technical Guidelines (Dec. 2022)

<sup>(</sup>https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53290&shareable=true, accessed May 5, 2023).

<sup>&</sup>lt;sup>30</sup> <u>Technical Guidelines</u>, Section 5.4.5, "Environmental Compliance and Permitting," pages 28-29 (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53286&shareable=true, accessed May 5, 2023).

result in long-term monitoring or restoration projects. These are all considerations factoring into a utility's project planning and execution.

HWT summarized how it plans to ensure compliance with applicable environmental laws, regulations, and permitting requirements in planning wildfire mitigation projects.<sup>31</sup>

## **5.5** Areas for Continued Improvement

Energy Safety has no areas for continued improvement for HWT under the service territory overview section of its Base WMP.

<sup>&</sup>lt;sup>31</sup> HWT's 2023-2025 WMP, pages 70-71.

# 6. Risk Methodology and Assessment

In response to Section 6 of the Technical Guidelines, HWT provided information on how it operates its grid to reduce wildfire risk, including in relation to equipment settings, grid response procedures and notifications, and personnel work procedures and training.<sup>32</sup>

Below is Energy Safety's evaluation regarding HWT's objectives and targets, maturity levels, and strengths in this area.

## **6.1** Methodology

Section 6.1 of the Technical Guidelines requires HWT to provide an overview of its risk calculation approach, including graphs showing the calculation process, a concise narrative explaining key elements, and definitions of risks and risk components.<sup>33</sup>

This section includes an overview of HWT's risk calculation approach.

HWT conducts its risk assessment using the failure mode and effects analysis (FMEA) process cycle, which HWT states is a standard practice in many industries. <sup>34</sup> The FMEA process has five steps and forms an iterative loop that allows for continuous improvements over time. By applying the FMEA process, HWT identifies, prioritizes, mitigates, and continuously reassesses risks. One example of the operational impact of the FMEA process is the risk driver identification analysis that is part of step 2. <sup>35</sup> As part of step 2, HWT leverages San Diego Gas & Electric Company's (SDG&E's) Fire Potential Index (FPI) and Red Flag Warning (RFW) alerts to judge current fire risk, future fire risk, and to inform near-term operational decision making.

HWT's infrastructure has a small footprint. The entire length of its transmission line is underground, and it has one single aboveground operational asset, its Suncrest Facility. The Suncrest Facility is the focus of HWT's risk methodology, framework, and evaluation process reported in its WMP.<sup>36</sup>

<sup>&</sup>lt;sup>32</sup> <u>Technical Guidelines</u>, Section 6, "Risk Methodology and Assessment," pages 30-58 (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53286&shareable=true, accessed May 5, 2023).

<sup>&</sup>lt;sup>33</sup> <u>Technical Guidelines</u>, Section 6.1, "Methodology," pages 30-35 (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53286&shareable=true, accessed May 5, 2023).

<sup>&</sup>lt;sup>34</sup> HWT's 2023-2025 WMP, page 62.

<sup>&</sup>lt;sup>35</sup> HWT's 2023-2025 WMP, page 63.

<sup>&</sup>lt;sup>36</sup> HWT'S 2023-2025 WMP, page 61.

## 6.2 Risk Analysis Framework

Section 6.2 of the Technical Guidelines requires HWT to provide a high-level overview of its risk analysis framework, including a summary of key modeling assumptions, input data, and modeling tools used.<sup>37</sup>

This section includes an overview of HWT's risk analysis framework.

HWT reports that it has an integrated risk framework that considers wildfire risk from both the perspective of potential ignitions caused by HWT's infrastructure as well as protecting the Suncrest Facility from the consequences of an in situ fire caused by other sources. <sup>38</sup> HWT has identified RFW events as a key driver of risk, with procedures in place to halt all non-critical construction and maintenance activities and more closely monitor the facility during those events. HWT also tracks compliance trends over time, corrects discovered issues, and adapts metrics based on weather conditions generated by the SDG&E FPI and its own internal FPI. <sup>39</sup>

## **6.3** Maturity Survey Results

According to its responses to the 2023 Maturity Survey, HWT has a 2023 maturity level of 0.00 for risk assessment and mitigation strategy. HWT projects no maturity level change for 2024 or 2025 (Figure 6.3-1).

Due to the smaller scope and scale of the ITOs, a minimum maturity level at or around 0.00 is acceptable in certain categories.

<sup>&</sup>lt;sup>37</sup> <u>Technical Guidelines</u>, Section 6.2, "Risk Analysis Framework," pages 36-44 (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53286&shareable=true, accessed May 5, 2023).

<sup>&</sup>lt;sup>38</sup> HWT's 2023-2025 WMP, pages 61-63.

<sup>&</sup>lt;sup>39</sup> HWT's 2023-2025 WMP, page 63.

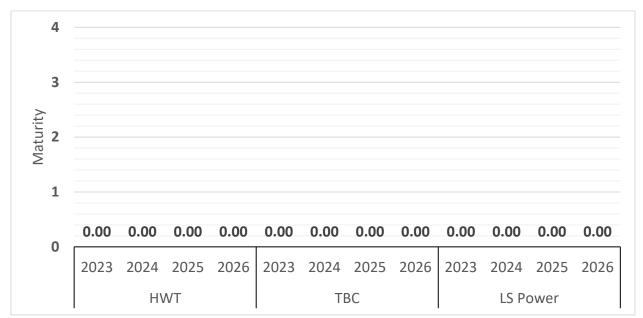


Figure 6.3-1. Cross-Utility Maturity for Risk Assessment and Mitigation Strategy (Minimum Values)

The utility's maturity level for the risk assessment and mitigation strategy category described above is calculated using the minimum value sub-capability of each capability. Using the capability average is another way to look at HWT's performance in risk assessment and mitigation strategy. The capability average is determined from the average of all components sub-capabilities and is an additional tool to evaluate the utilities' maturity.

When the category maturity is calculated using the capability average (rather than the minimum), HWT has a maturity level for risk assessment and mitigation strategy of 0.35 for 2023, 0.35 in 2024, and 0.35 in 2025 (Figure 6.3-2).



Figure 6.3-2. Cross-Utility Maturity for Risk Assessment and Mitigation Strategy (Average Values)

The rest of this section reports on maturity levels considering the minimum values.

HWT's current maturity level in this category is around the same as its peers, with Trans Bay Cable and LS Power reporting at levels 0.00 and 0.00, respectively. See Figure 6.3-1.

Based on its responses to the 2023 Maturity Survey, HWT reported its highest levels of projected maturity in the following capabilities for 2023 and 2024: Modularization 40,41

Based on its responses to the 2023 Maturity Survey, HWT reported its lowest levels of projected maturity in the following capabilities for 2023 and 2024: Transparency<sup>42,43</sup>

<sup>&</sup>lt;sup>40</sup> HWT's responses to questions on the 2023 Maturity Survey under Category A "Risk Assessment and Mitigation Strategy," Capability 1 "Statistical weather, climate, and wildfire."

<sup>&</sup>lt;sup>41</sup> The degree to which utility risk model software architecture is sufficiently modular to track and control changes and enhancements over time.

<sup>&</sup>lt;sup>42</sup> HWT's responses to questions on the 2023 Maturity Survey under Category A "Risk Assessment and Mitigation Strategy," Capability 2 "Calculation of wildfire and PSPS risk exposure for societal values."

<sup>&</sup>lt;sup>43</sup> The degree to which risk model documentation, data, and performance summary is made available to the public.

## **6.4** HWT's WMP Strengths

HWT projects improvement in risk methodology and assessment over the WMP cycle in the following areas: risk analysis results and presentation.

HWT conducts its risk assessment using the FMEA process cycle which HWT states is a standard practice in many industries. <sup>44</sup> Given HWT's small footprint, the FMEA process cycle sufficiently addresses the present risks and the future risks considering the iterative loop built into the process which enables continuous improvements over time.

#### **6.4.1 2022 Areas for Continued Improvement**

There were no areas for continued improvement for HWT in its risk methodology and assessment resulting from Energy Safety's evaluation of HWT's 2022 WMP Update.

## 6.5 Areas for Continued Improvement

Energy Safety has no areas for continued improvement for HWT under the risk methodology and assessment section of its Base WMP.

<sup>&</sup>lt;sup>44</sup> HWT's 2023-2025 WMP, page 62.

# 7. Wildfire Mitigation Strategy Development

In response to Section 7 of the Technical Guidelines, HWT provided a high-level overview of its risk evaluation and process for deciding on a portfolio of mitigation initiatives to achieve the maximum feasible risk reduction while meeting WMP goals and objectives. <sup>45</sup>

Below is Energy Safety's evaluation regarding HWT's objectives and targets, maturity levels, and strengths in this area.

### 7.1 Risk Evaluation

Section 7.1 of the Technical Guidelines requires HWT to describe its approach to risk evaluation based on risk analysis outcomes. 46 The approach should inform the development of a wildfire mitigation strategy that meets WMP goals and objectives.

HWT's risk evaluation focuses on potential sources of ignition at the Suncrest Facility, and situational awareness during RFW events, from both the perspective of HWT as a potential source of ignition and as potentially being exposed to in situ wildfire risk. The Suncrest Facility is located in HFTD Tier 3 territory, with extreme fire risk. <sup>47</sup> The Suncrest Facility has been hardened against fire and all its transmission lines are underground.

#### 7.1.1 HWT's WMP Strengths

HWT projects improvement in its wildfire mitigation strategy development over the WMP cycle in the following area: mitigation selection process.

HWT's mitigation strategy is comprised of ignition risk factors it monitors, such as SDGE's FPI, and operational practices, such as using the FMEA process described in Section 6.4.<sup>48</sup> Considering HWT maintains transmission-only assets and does not have a service territory or end-use customers, its current mitigation selection approach is adequate to address its needs.

<sup>&</sup>lt;sup>45</sup> <u>Technical Guidelines</u>, Section 7, "Wildfire Mitigation Strategy Development," pages 59-74 (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53286&shareable=true, accessed May 5, 2023).

<sup>&</sup>lt;sup>46</sup> <u>Technical Guidelines</u>, Section 7.1, "Risk Evaluation," pages 59-66 (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53286&shareable=true, accessed May 5, 2023).

<sup>&</sup>lt;sup>47</sup> HWT's 2023-2025 WMP, page 63.

<sup>&</sup>lt;sup>48</sup> HWT's 2023-2025 WMP, page 65.

Mitigation selection occurs in step 4 of the FMEA process HWT follows. In this step, HWT monitors leading indicators and applies preventative measures of ignition events.<sup>49</sup> HWT tracks compliance trends over time and adapts new metrics that can reduce ignition risks.

#### 7.1.1.1 2022 Areas for Continued Improvement

There were no areas for continued improvement for HWT in its risk evaluation resulting from Energy Safety's evaluation of HWT's 2022 WMP Update.

#### **7.1.2** Areas for Continued Improvement

Energy Safety has no areas for continued improvement for HWT under the risk evaluation section of its Base WMP.

#### 7.2 Risk-Informed Framework

Section 4.4 of the Technical Guidelines requires HWT to adopt and describe its framework for making risk-informed decisions.<sup>50</sup>

#### 7.2.1 HWT's WMP Strengths

HWT projects improvement in its risk-informed decision making over the WMP cycle in the following area: risk evaluation.

HWT's risk evaluation strengths are a subset of those already noted in Sections 6.4 and 7.1.1. In brief, HWT describes industry-recognized best practices for risk identification, mitigation selection, and implementation.

#### 7.2.1.1 2022 Areas for Continued Improvement

There were no areas for continued improvement for HWT in its risk-informed framework resulting from Energy Safety's evaluation of HWT's 2022 WMP Update.

#### 7.2.2 Areas for Continued Improvement

Energy Safety has no areas for continued improvement for HWT under the risk-informed framework section of its Base WMP.

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<sup>&</sup>lt;sup>49</sup> HWT's 2023-2025 WMP, page 65.

<sup>&</sup>lt;sup>50</sup> <u>Technical Guidelines</u>, Section 4.4 "Risk-Informed Framework," pages 11-14 (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53286&shareable=true, accessed May 5, 2023).

## 7.3 Wildfire Mitigation Strategy

Section 7.2 of the Technical Guidelines requires HWT to describe its proposed wildfire mitigation strategies based on the evaluation process identified in Section 7.1 of its WMP.<sup>51</sup>

#### 7.3.1 Maturity Survey Results

According to its responses to the 2023 Maturity Survey, HWT has a 2023 maturity level of 0.14 for risk prioritization. For 2024, HWT projects no maturity level change for 2024 or 2025.

Note that cross-category themes are calculated by averaging the relevant sub-capability maturity levels.

HWT's current maturity level in this cross-category theme is around the same as its peers, with Trans Bay Cable and LS Power reporting at levels 0.14 and 0.00, respectively (See Figure 7.3-1).

Due to the smaller scope and scale of the ITOs, a minimum maturity level at or around 0.00 is acceptable in certain categories.

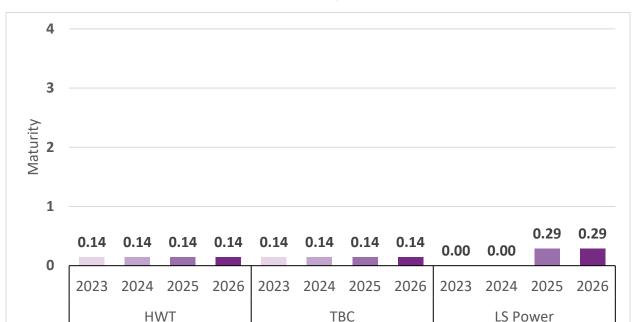


Figure 7.3-1. Cross-Utility Maturity for Risk Prioritization (Cross-Category Theme; Average Values)

(https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53286&shareable=true, accessed May 5, 2023)

<sup>&</sup>lt;sup>51</sup> Technical Guidelines, Section 7.2, pages 66-74

Note that cross-category themes are only measured using the average maturity levels and not the minimum maturity levels.<sup>52</sup>

#### 7.3.2 HWT's WMP Strengths

HWT projects improvement in its wildfire mitigation strategy over the WMP cycle in the following area: risk impact of mitigations initiatives.

HWT developed and deploys its own fire risk index to strengthen its ability to monitor wildfires in real time. <sup>53</sup> HWT further improves its own situational awareness with practices such as remote sensor monitoring, on-site cameras and third-party wildfire tracking tools. Additionally, HWT plans to increase the granularity of its real-time wildfire tracking tools using satellite data. These mitigation initiatives improve HWT's real-time situational awareness by enabling operations teams to track wildfire propagation, evaluate wildfire proximity to HWT assets, and inform the selection of the appropriate response.

#### 7.3.2.1 2022 Areas for Continued Improvement

There were no areas for continued improvement for HWT in its wildfire mitigation selection strategy resulting from Energy Safety's evaluation of HWT's 2022 WMP Update.

### **7.3.3** Areas for Continued Improvement

Energy Safety has no areas for continued improvement for HWT under the wildfire mitigation strategy section of its Base WMP.

<sup>&</sup>lt;sup>52</sup> 2023-2025 Electrical Corporation Wildfire Mitigation Maturity Model (Second Revised Final, Feb. 2023) page 13 (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53394&shareable=true, accessed May 5, 2023).

<sup>&</sup>lt;sup>53</sup> HWT's 2023-2025 WMP, page 67.

## 8. Wildfire Mitigation Initiatives

This section comprises Energy Safety's evaluation of the mitigation initiatives HWT undertakes to reduce the risk of catastrophic wildfire. For each mitigation initiative this section provides an analysis of HWT's maturity level, the ways HWT is progressing and specific areas where HWT must continue to improve.

The following mitigation initiatives, each with corresponding capabilities and maturity levels, are discussed in Sections 8.1 through 8.6:

- Grid design, operations, and maintenance, including grid design and system hardening, asset inspections, equipment maintenance and repair, and grid operations and procedures.
- Vegetation management and inspections.
- Situational awareness and forecasting:
- Emergency preparedness:
- Community outreach and engagement:

HWT's approach to PSPS is discussed in Section 9. HWT's process for continuous improvement, including lessons learned, corrective action programs, and notices of violation and defect, are discussed in Section 10.

## 8.1 Grid Design, Operations, Maintenance

In response to Section 8.1 of the Technical Guidelines,<sup>54</sup> HWT provided information about its grid design and system hardening; asset inspections; equipment maintenance and repair; asset management and inspection enterprise systems; quality assurance and quality control; open work orders; grid operations and procedures; and workforce planning.

Below is Energy Safety's evaluation regarding HWT's objectives and targets, maturity levels, and strengths in these areas. In addition, Energy Safety has identified areas where HWT must improve, described at the end of each subsection.

#### 8.1.1 Objectives and Targets

HWT defined quantitative targets for initiative activities for grid design, operations, and maintenance programs. HWT's Base WMP includes end-of-year targets for 2023 and 2024. Selected targets are included in Table 8.1-1.

<sup>&</sup>lt;sup>54</sup> <u>Technical Guidelines</u>, Section 8.1, pages 75-93 (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53286&shareable=true, accessed May 5, 2023).

Table 8.1-1. HWT Grid Design, Operations, and Maintenance – Selected Targets<sup>55</sup>

| Initiative Activity | Target Unit                   | 2023<br>Target | 2024<br>Target | 2025<br>Target |
|---------------------|-------------------------------|----------------|----------------|----------------|
| Asset Inspections   | Site Inspections<br>Completed | 27             | 27             | -              |

#### 8.1.2 Grid Design and System Hardening

Section 8.1.2 of the Technical Guidelines requires HWT to provide information on how it designs its system to reduce ignition risk and what it is doing to strengthen its distribution, transmission, and substation infrastructure to reduce the risk of utility-related ignitions resulting in catastrophic wildfires. <sup>56</sup>

#### 8.1.2.1 Maturity Survey Results

According to its responses to the 2023 Maturity Survey, HWT has a 2023 maturity level of 0.00 for grid design and resiliency. HWT projects no maturity level change for 2024 or 2025 (Figure 8.1-1).

Due to the smaller scope and scale of the ITOs, a minimum maturity level at or around 0.00 is acceptable in certain categories.

<sup>&</sup>lt;sup>55</sup> HWT's 2023-2025 WMP, Table 8-4. Asset Inspections Targets by Year, page 75.

<sup>&</sup>lt;sup>56</sup> <u>Technical Guidelines</u>, Section 8.1.2, page 82 (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53286&shareable=true, accessed May 5, 2023)

4 3 Maturity 1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0 2025 2026 2023 2024 2025 2026 2023 2024 2025 2026 2023 2024 **TBC HWT** LS Power

Figure 8.1-1. Cross-Utility Maturity for Grid Design and Resiliency (Minimum Values)

The utility's maturity level for the grid design and resiliency capability described above is calculated using the minimum value of component sub-capabilities. The capability average is another way to look at HWT's performance in grid design and resiliency. The capability average is determined from the average of all component sub-capabilities and is an additional tool to evaluate the utilities' maturity. <sup>57</sup>

When the capability maturity is calculated using the average (rather than the minimum), HWT has a maturity level for grid design and resiliency of 0.17 for 2023 and projects no change for 2024 and 2025 (Figure 8.1-2).

<sup>&</sup>lt;sup>57</sup> For further information on maturity level determinations, see Section 4 of the 2023-2025 Electrical Corporation Wildfire Mitigation Maturity Model (second revision), published February 21, 2023.



Figure 8.1-2. Cross-Utility Maturity for Grid Design and Resiliency<sup>58</sup> (Average Values)

The rest of this section reports on maturity levels considering the minimum values.

HWT's current maturity level in this capability is the same as its peers, with Trans Bay Cable and LS Power reporting at levels 0.00 and 0.00, respectively. See Figure 8.1-1.

#### 8.1.2.2 HWT's WMP Strengths

HWT projects improvement in grid design and system hardening over the WMP cycle in the following area: existing hardening improvements.

HWT does not have specific plans for grid hardening from 2023 through 2025, however, its only transmission line is now fully undergrounded and already well-hardened. Additionally, HWT completed other hardening efforts through its 2020-2022 WMP cycle, such as building a transformer fire barrier wall, a transformer seismic isolation pad, and a perimeter wall. HWT is currently monitoring the effectiveness of its existing hardening procedures to determine if any future measures need to take place.

<sup>&</sup>lt;sup>58</sup> 2023 Maturity Survey Category C "Grid Design, Inspections, and Maintenance," Capability 16 "Grid design and resiliency."

#### **2022 Areas for Continued Improvement**

There were no areas for continued improvement for HWT in its grid design and system hardening resulting from Energy Safety's evaluation of HWT's 2022 WMP Update.

#### 8.1.2.3 Areas for Continued Improvement

Energy Safety has no areas for continued improvement for HWT under the grid design and system hardening section of its Base WMP.

#### 8.1.3 Asset Inspections

Section 8.1.3 of the Technical Guidelines requires HWT to provide an overview of its procedures for inspecting its assets. 59

#### 8.1.3.1 Maturity Survey Results

According to its responses to the 2023 Maturity Survey, HWT has a 2023 maturity level of 0.00 for asset inspections. HWT projects no maturity level change for 2024 or 2025 (Figure 8.1-3).

Due to the smaller scope and scale of the ITOs, a minimum maturity level at or around 0.00 is acceptable in certain categories.

<sup>&</sup>lt;sup>59</sup> <u>Technical Guidelines</u>, Section 8.1.3, page 83-85 (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53286&shareable=true, accessed May 5, 2023).

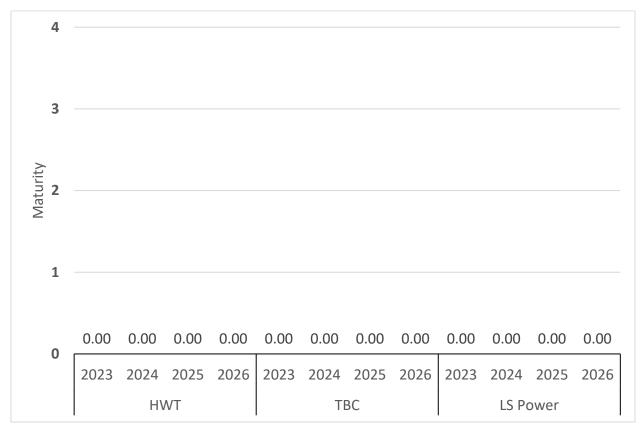


Figure 8.1-3. Cross-Utility Maturity for Asset Inspections (Minimum Values)

The utility's maturity level for the asset inspection capability described above is calculated using the minimum value of component sub-capabilities. The capability average is another way to look at HWT's performance in asset inspections. The capability average is determined from the average of all component sub-capabilities and is an additional tool to evaluate the utilities' maturity. <sup>60</sup>

When the capability maturity is calculated using the average (rather than the minimum), HWT has a maturity level for asset inspections of 1.67 for 2023, 2024, and 2025 (Figure 8.1-4).

<sup>&</sup>lt;sup>60</sup> For further information on maturity level determinations, see Section 4 of the 2023-2025 Electrical Corporation Wildfire Mitigation Maturity Model (second revision), published February 21, 2023.

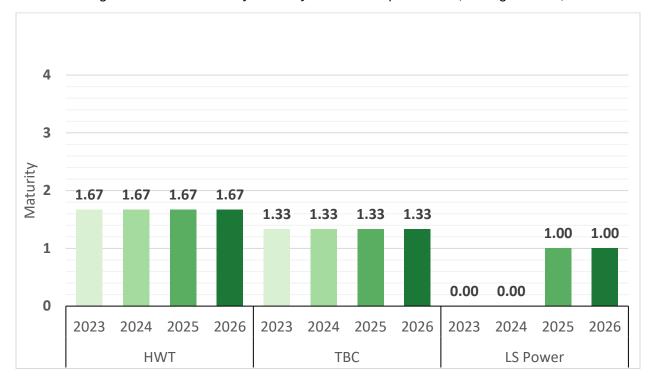


Figure 8.1-4. Cross-Utility Maturity for Asset Inspections <sup>61</sup> (Average Values)

The rest of this section reports on maturity levels considering the average values.

HWT's current maturity level in this capability is higher than its peers, with Trans Bay Cable and LS Power reporting at levels 1.33 and 0.00, respectively. See Figure 8.1-4.

#### 8.1.3.2 HWT's WMP Strengths

HWT projects improvement in asset inspections over the WMP cycle in the following areas: inspection frequency and risk informed inspections.

HWT states that it performs monthly patrol and visual inspections, <sup>62</sup> with asset inspections adhering to manufacturer's specifications. <sup>63</sup> In addition to monthly inspections, HWT discloses it performs supplemental inspections ahead of risk events such as RFW days, the start of fire season, and nearby fire events. <sup>64</sup>

<sup>&</sup>lt;sup>61</sup> 2023 Maturity Survey Category C "Grid Design, Inspections, and Maintenance," Capability 14 "Asset inspections."

<sup>&</sup>lt;sup>62</sup> HWT's 2023-2025 WMP, Table 8-6, page 81

<sup>&</sup>lt;sup>63</sup> HWT's 2023-2025 WMP, page 83.

<sup>&</sup>lt;sup>64</sup> HWT's 2023-2025 WMP, page 83.

#### **2022 Areas for Continued Improvement**

There were no areas for continued improvement for HWT in its asset inspections resulting from Energy Safety's evaluation of HWT's 2022 WMP Update.

#### **Areas for Continued Improvement** 8.1.3.3

HWT must continue to improve in the following areas.

HWT states that it will consider making changes to its Quality Assurance/Quality Control (QA/QC) processes as its operational experience increases. 65 HWT also states that procedures and checklists corresponding to its Asset Management Program cover QA/QC requirements and commitments. 66 In its 2025 Update, HWT must provide its current QA/QC documentation and process. HWT must also provide an analysis confirming that its current QA/QC process sufficiently mitigates wildfire risk.

Energy Safety sets forth specific areas for improvement and associated required progress in Section 11.

#### **Equipment Maintenance and Repair** 8.1.4

Section 8.1.4 of the Technical Guidelines requires HWT to provide a narrative of its maintenance programs, including its strategy for replacing/upgrading and for specific equipment types. 67

#### 8.1.4.1 **Maturity Survey Results**

According to its responses to the 2023 Maturity Survey, HWT has a 2023 maturity level of 0.00 for asset maintenance and repair. HWT projects no maturity level change for 2024 or 2025 (Figure 8.1-5).

Due to the smaller scope and scale of the ITOs, a minimum maturity level at or around 0.00 is acceptable in certain categories.

<sup>65</sup> HWT's 2023-2025 WMP, page 87

<sup>&</sup>lt;sup>66</sup> Data Request OEIS-P-WMP\_2023-HWT-002 (Question 2) (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=55635&shareable=true, accessed November 13, 2023.)

<sup>67</sup> Technical Guidelines, Section 8.1.4, pages 85-86 (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53286&shareable=true, accessed May 5, 2023)

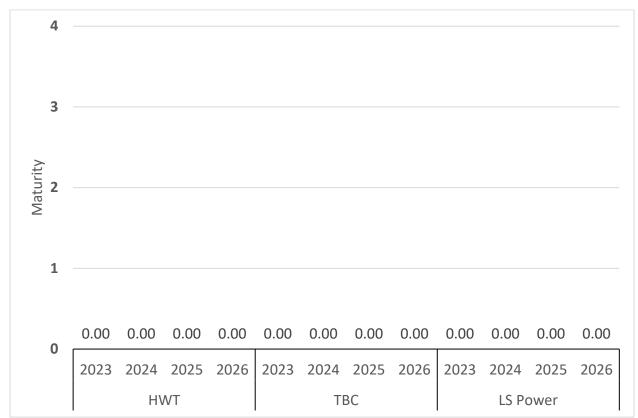


Figure 8.1-5. Cross-Utility Maturity for Asset Maintenance and Repair 68 (Minimum Values)

The utility's maturity level for the asset maintenance and repair capability described above is calculated using the minimum value of component sub-capabilities. The capability average is another way to look at HWT's performance in asset maintenance and repair. The capability average is determined from the average of all component sub-capabilities and is an additional tool to evaluate the utilities' maturity. <sup>69</sup>

When the capability maturity is calculated using the average (rather than the minimum), HWT has a maturity level for asset maintenance and repair of 1.50 for 2023, and projects no change for 2024 or 2025 (Figure 8.1-6).

<sup>&</sup>lt;sup>68</sup> 2023 Maturity Survey Category C "Grid Design, Inspections, and Maintenance," Capability 15 "Asset maintenance and repair."

<sup>&</sup>lt;sup>69</sup> For further information on maturity level determinations, see Section 4 of the 2023-2025 Electrical Corporation Wildfire Mitigation Maturity Model (second revision), published February 21, 2023.

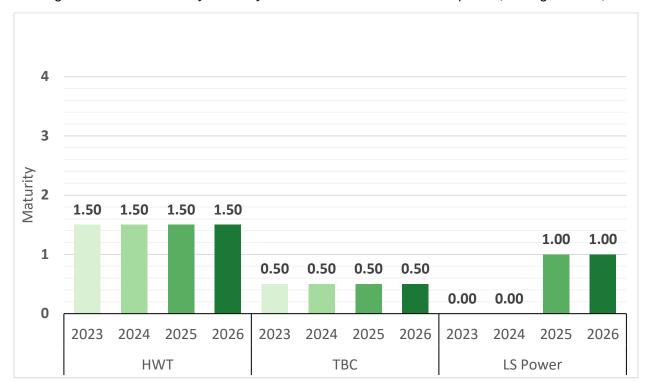


Figure 8.1-6. Cross-Utility Maturity for Asset Maintenance and Repair 70 (Average Values)

The rest of this section reports on maturity levels considering the average values.

HWT's current maturity level in this capability is higher than its peers, with Trans Bay Cable and LS Power reporting at levels 0.50 and 0.00, respectively. See Figure 8.1-6.

#### 8.1.4.2 HWT's WMP Strengths

HWT projects improvement in equipment maintenance and repair over the WMP cycle in the following area: overdue work orders.

HWT commits to the prompt completion of work orders. HWT states it had no overdue work orders at the time its 2023 WMP was composed.<sup>71</sup>

#### **2022 Areas for Continued Improvement**

There were no areas for continued improvement for HWT in its equipment maintenance and repair resulting from Energy Safety's evaluation of HWT's 2022 WMP Update.

<sup>&</sup>lt;sup>70</sup> 2023 Maturity Survey Category C "Grid Design, Inspections, and Maintenance," Capability 15 "Asset maintenance and repair."

<sup>&</sup>lt;sup>71</sup> HWT's 2023-2025 WMP, Table 8-8, page 88.

#### 8.1.4.3 Areas for Continued Improvement

Energy Safety has no areas for continued improvement for HWT under the equipment maintenance and repair section of its Base WMP.

#### 8.1.5 Grid Operations and Procedures

Section 8.1.8 of the Technical Guidelines requires HWT to describe how it manages and operates its grid to reduce wildfire risk, including in relation to equipment settings, grid response procedures and notifications, and personnel work procedures and training.<sup>72</sup>

#### 8.1.5.1 Maturity Survey Results

According to its responses to the 2023 Maturity Survey, HWT has a 2023 maturity level of 0.00 for grid operations and protocols. HWT projects no maturity level change for 2024 or 2025 (Figure 8.1-7).

Due to the smaller scope and scale of the ITOs, a minimum maturity level at or around 0.00 is acceptable in certain categories.

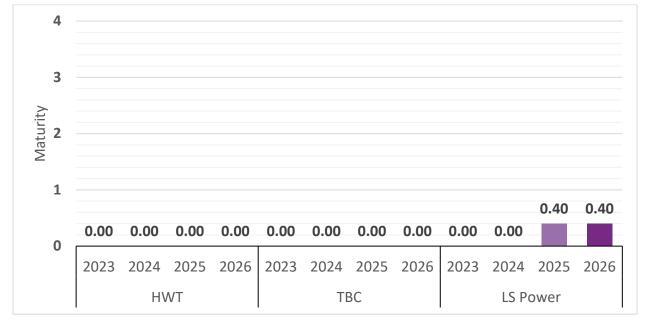


Figure 8.1-7. Cross-Utility Maturity for Grid Operations and Protocols 73 (Minimum Values)

The utility's maturity level for the grid operations and protocols category described above is calculated using the minimum value sub-capability of each capability. Using the capability

<sup>&</sup>lt;sup>72</sup> <u>Technical Guidelines</u>, Section 8.1.8, pages 88-89 (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53286&shareable=true, accessed May 5, 2023)

<sup>&</sup>lt;sup>73</sup> 2023 Maturity Survey Category E "Grid Operations and Protocols."

average is another way to look at HWT's performance in grid operations and protocols. The capability average is determined from the average of all component sub-capabilities and is an additional tool to evaluate the utilities' maturity. 74

When the category maturity is calculated using the capability average (rather than the minimum) as described below, HWT has a maturity level for grid operations and protocols of 1.13 for 2023, and projects no change for 2024 or 2025 (Figure 8.1-8).



Figure 8.1-8. Cross-Utility Maturity for Grid Operations and Protocols 75 (Average Values)

The rest of this section reports on maturity levels considering the minimum values.

HWT's current maturity level in this category is around the same as its peers, with Trans Bay Cable and LS Power reporting at levels 0.00 and 0.00, respectively. See Figure 8.1-7.

#### 8.1.5.2 HWT's WMP Strengths

HWT projects improvement in grid operations and procedures over the WMP cycle in the following areas:

HWT's existing facilities within California do not currently use any protective equipment or device settings, as HWT does not have any overhead lines, reclosers, or distribution assets.

<sup>&</sup>lt;sup>74</sup> For further information on maturity level determinations, see Section 4 of the 2023-2025 Electrical Corporation Wildfire Mitigation Maturity Model (second revision), published February 21, 2023.

<sup>&</sup>lt;sup>75</sup> 2023 Maturity Survey Category E "Grid Operations and Protocols."

HWT's facilities are monitored remotely around the clock, with any alarms or concerns directly communicated to local personnel to check and correct.

#### **2022 Areas for Continued Improvement**

There were no areas for continued improvement for HWT in its grid operations and procedures resulting from Energy Safety's evaluation of HWT's 2022 WMP Update.

#### 8.1.5.3 Areas for Continued Improvement

Energy Safety has no areas for continued improvement for HWT under the grid operations and procedures section of its Base WMP.

#### 8.2 Vegetation Management and Inspections

In response to Section 8.2 of the Technical Guidelines, HWT provided information on its vegetation management programs, including vegetation inspections, vegetation and fuels management, vegetation management enterprise systems, environmental compliance and permitting, quality assurance and quality control, open work orders, and workforce planning as applicable.<sup>76</sup>

Below is Energy Safety's evaluation regarding HWT's objectives and targets, maturity levels, and strengths in these areas.

#### 8.2.1 Objectives and Targets

As part of its Base WMP, HWT provided a 3-year objective for its vegetation management programs. <sup>77</sup> HWT did not provide 10-year objectives for its vegetation management programs.

Given the limited scope of HWT's infrastructure and wildfire risk exposure due to vegetation contact, HWT has provided sufficient justification for marking 10-year objectives for vegetation management and inspections as "Not Applicable."

HWT also defined quantitative targets for initiative activities for its vegetation management programs. HWT's Base WMP includes end-of-year targets for 2023, 2024, and 2025. Selected targets are included in Table 8.2-1.

<sup>&</sup>lt;sup>76</sup> <u>Technical Guidelines</u>, Section 8.2, "Vegetation Management and Inspections," pages 94-113 (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53286&shareable=true, accessed May 5, 2023).

<sup>&</sup>lt;sup>77</sup> HWT's 2023-2025 WMP, pages 96-97.

Table 8.2-1. HWT Vegetation Management – Selected Targets

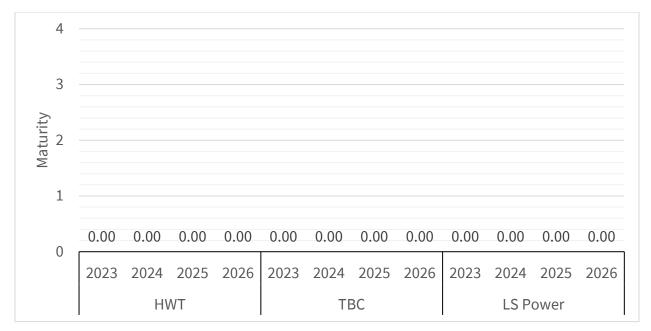
| Initiative Activity   | Target Unit     | 2023 202<br>Target Targ |   | 2025<br>Target |
|-----------------------|-----------------|-------------------------|---|----------------|
| Vegetation Management | Weed Abatements | 6                       | 6 | 6              |

#### 8.2.2 Maturity Survey Results

According to its responses to the 2023 Maturity Survey, HWT has a 2023 maturity level of 0.00 for vegetation management and inspections. HWT projects no maturity level change for 2024 or 2025 (Figure 8.2-1).

Due to the smaller scope and scale of the ITOs, a minimum maturity level at or around 0.00 is acceptable in certain categories.

Figure 8.2-1. Cross-Utility Maturity for Vegetation Management and Inspections (Minimum Values)



The utility's maturity level for the vegetation management and inspections category described above is calculated using the minimum value sub-capability of each capability. Using the capability average is another way to look at HWT's performance in vegetation management and inspections. The capability average is determined from the average of all component sub-capabilities and is an additional tool to evaluate the utilities' maturity. <sup>78</sup>

<sup>&</sup>lt;sup>78</sup> For further information on maturity level determinations, see Section 4 of the 2023-2025 Electrical Corporation Wildfire Mitigation Maturity Model (second revision), published February 21, 2023.

When the category maturity is calculated using the capability average (rather than the minimum), HWT has a maturity level for vegetation management and inspections of 0.94 for 2023 and projects no change for 2024 or 2025 (Figure 8.2-2).

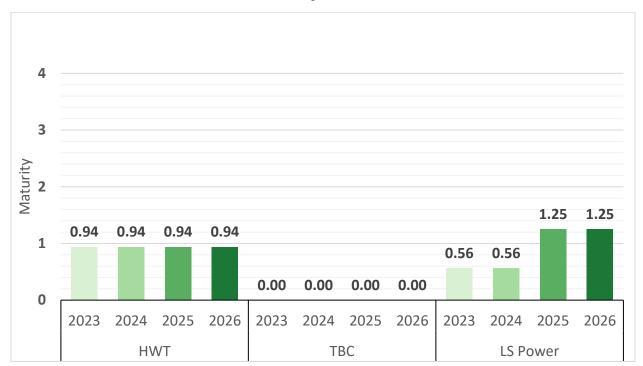


Figure 8.2-2. Cross-Utility Maturity for Vegetation Management and Inspections (Average Values)

The rest of this section reports on maturity levels considering the average values.

HWT's current maturity level in this category is higher than its peers, with Trans Bay Cable and LS Power reporting at levels 0.00 and 0.56, respectively. See Figure 8.2-2.

Given the limited scope of HWT's infrastructure and wildfire risk exposure due to vegetation contact, it should not be a foregone conclusion that HWT must increase its maturity level for vegetation management and inspections. A maturity increase in those areas may not reduce risk and might detract from other relevant risk-reduction activities, such as equipment failure risk mitigation.

#### 8.2.3 HWT's WMP Strengths

HWT does not project improvement in vegetation management over the WMP cycle.

Given the limited scope of HWT's infrastructure and wildfire risk exposure from vegetation contact, Energy Safety finds that HWT has sufficiently and satisfactorily documented its vegetation management practices and protocols.

#### 8.2.3.1 2022 Areas for Continued Improvement

There were no areas for continued improvement for HWT in its vegetation management and inspections resulting from Energy Safety's evaluation of HWT's 2022 WMP Update.

#### 8.2.4 Areas for Continued Improvement

Energy Safety has no areas for continued improvement for HWT under the vegetation management section of its Base WMP.

#### 8.3 Situational Awareness and Forecasting

In response to Section 8.3 of the Technical Guidelines, HWT provided information on its situational awareness and forecasting, including environmental monitoring systems, grid monitoring systems, ignition detection systems, weather forecasting, and fire potential index as applicable.<sup>79</sup>

Below is Energy Safety's evaluation regarding HWT's objectives and targets, maturity levels, and strengths in these areas.

#### 8.3.1 Objectives and Targets

As part of its Base WMP, HWT did not provide 3-year and 10-year objectives for its situational awareness and forecasting programs, <sup>80</sup> nor did it provide quantitative targets for its situational awareness and forecasting initiative activities.

Given the limited scale and scope of HWT's facilities as a transmission-only ITO without distribution or end-use customers and given that most of its assets are buried underground or enclosed within a concrete wall, HWT has provided sufficient justification with its existing situational awareness and forecasting initiatives for marking objectives and targets for situational awareness and forecasting as "Not Applicable."

#### 8.3.2 Maturity Survey Results

According to its responses to the 2023 Maturity Survey, HWT has a 2023 maturity level of 0.00 for situational awareness and forecasting.

HWT projects no maturity level change for 2024 or 2025 (Figure 8.3-1).

Due to the smaller scope and scale of the ITOs, a minimum maturity level at or around 0.00 is acceptable in certain categories.

<sup>&</sup>lt;sup>79</sup> <u>Technical Guidelines</u>, Section 8.3, "Situational Awareness and Forecasting," pages 114-135 (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53286&shareable=true, accessed May 5, 2023).

<sup>&</sup>lt;sup>80</sup> [Insert citation to utility's WMP, including page number, where the objectives can be found for this category.]

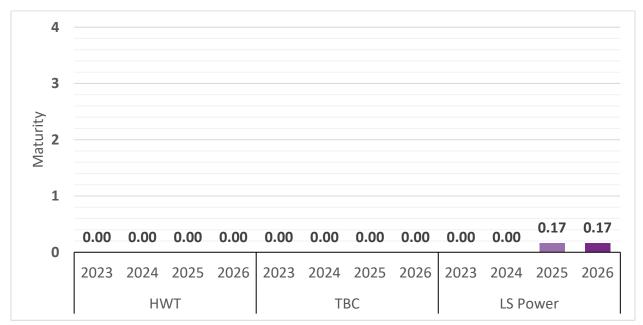


Figure 8.3-1. Cross-Utility Maturity for Situational Awareness and Forecasting (Minimum Values)

The utility's maturity level for the situational awareness and forecasting category described above is calculated using the minimum value sub-capability of each capability. Using the capability average is another way to look at HWT's performance in situational awareness and forecasting. The capability average is determined from the average of all component sub-capabilities and is an additional tool to evaluate the utilities' maturity. <sup>81</sup>

When the category maturity is calculated using the capability average (rather than the minimum), HWT has a maturity level for situational awareness and forecasting of 0.67 for 2023, and projects no change for 2024 or 2025 (Figure 8.3-2).

<sup>&</sup>lt;sup>81</sup> For further information on maturity level determinations, see Section 4 of the 2023-2025 Electrical Corporation Wildfire Mitigation Maturity Model (second revision), published February 21, 2023.



Figure 8.3-2. Cross-Utility Maturity for Situational Awareness and Forecasting (Average Values)

The rest of this section reports on maturity levels considering the average values.

HWT's current maturity level in this category is higher than its peers, with Trans Bay Cable and LS Power reporting at levels 0.49 and 0.08, respectively. See Figure 8.3-2.

Considering the limited scope of HWT's infrastructure and its low exposure to wildfire risk, its existing maturity level is in line with its peer ITOs and is adequate.

HWT has approximately one mile of undergrounded 230 kV transmission line that interconnects with its Suncrest Substation with no end use customers. The substation is hardscaped and enclosed by a concrete wall. HWT is equipped with a weather station, which monitors local conditions, as well as a fire risk index for its substation to increase awareness of potential fire threats. HWT has also installed a cable monitoring system for its underground cable and oil gas monitoring for its transformers and has added cameras to its Suncrest Substation. These measures ensure early detection of potential issues, reducing the risk of equipment failures or wildfire ignitions.

#### 8.3.3 HWT's WMP Strengths

HWT reports that it intends to monitor the effectiveness of its existing processes, procedures, and capabilities and assess changes or enhancements as needed. Overall, HWT's approach is adequate considering its minimal ignition risk.

#### 8.3.3.1 2022 Areas for Continued Improvement

There were no areas for continued improvement for HWT in its situational awareness and forecasting resulting from Energy Safety's evaluation of HWT's 2022 WMP Update.

#### 8.3.4 Areas for Continued Improvement

Energy Safety has no areas for continued improvement for HWT under the situational awareness and forecasting section of its Base WMP.

#### **8.4 Emergency Preparedness**

In response to Section 8.4 of the Technical Guidelines, HWT provided information on its emergency preparedness, including its wildfire and PSPS emergency preparedness plan; collaboration and coordinating with public safety partners; public notification and communications strategy; preparedness and planning for service restoration; customer support in wildfire and PSPS emergencies; and learning after wildfire and PSPS events as applicable.<sup>82</sup>

Below is Energy Safety's evaluation regarding HWT's objectives and targets, maturity levels, and strengths in these areas.

#### 8.4.1 Objectives and Targets

As part of its Base WMP, HWT did not provide 3-year and 10-year objectives for its emergency preparedness programs nor did it provide quantitative targets for initiative activities for its emergency preparedness programs.<sup>83</sup>

Given the limited scale and scope of HWT's facilities as a transmission-only ITO without distribution or end-use customers, HWT has provided sufficient justification with its existing emergency preparedness initiatives for marking objectives and targets as "Not Applicable."

#### 8.4.2 Maturity Survey Results

According to its responses to the 2023 Maturity Survey, HWT has a 2023 maturity level of 0.00 for emergency preparedness.

HWT projects no maturity level change for 2024 or 2025 (Figure 8.4-1).

Due to the smaller scope and scale of the ITOs, a minimum maturity level at or around 0.00 is acceptable in certain categories.

<sup>&</sup>lt;sup>82</sup> <u>Technical Guidelines</u>, Section 8.4, "Emergency Preparedness," pages 135-179 (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53286&shareable=true, accessed May 5, 2023).

<sup>83</sup> HWT's 2023-2025 WMP, pages 148-150.

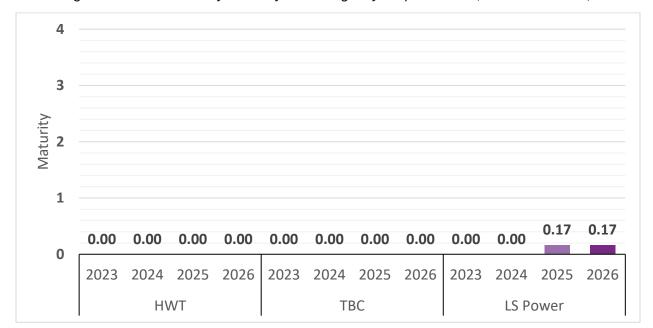


Figure 8.4-1. Cross-Utility Maturity for Emergency Preparedness (Minimum Values)

The utility's maturity level for the emergency preparedness category described above is calculated using the minimum value sub-capability of each capability. Using the capability average is another way to look at HWT's performance in emergency preparedness. The capability average is determined from the average of all component sub-capabilities and is an additional tool to evaluate the utilities' maturity. <sup>84</sup>

When the category maturity is calculated using the capability average (rather than the minimum), HWT has a maturity level for emergency preparedness of 0.60 for 2023, and projects no change for 2024 or 2025 (Figure 8.4-2).

<sup>&</sup>lt;sup>84</sup> For further information on maturity level determinations, see Section 4 of the 2023-2025 Electrical Corporation Wildfire Mitigation Maturity Model (second revision), published February 21, 2023.

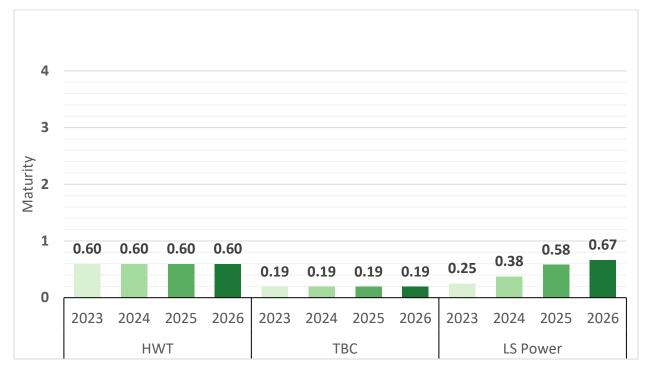


Figure 8.4-2. Cross-Utility Maturity for Emergency Preparedness (Average Values)

The rest of this section reports on maturity levels considering the average values.

HWT's current maturity level in this category is higher than its peers, with Trans Bay Cable and LS Power reporting at levels 0.19 and 0.25, respectively. See Figure 8.4-2.

#### 8.4.3 HWT's WMP Strengths

Although HWT has limited infrastructure, it does have a protocol for engaging with critical stakeholders regarding any potential emergency event, which includes wildfire or SDG&E-initiated PSPS events. This is detailed in HWT's Emergency Operations Plan, which includes HWT's PSPS protocols. This plan illustrates HWT's close communication and coordination with the CAISO and SDG&E.

#### 8.4.3.1 2022 Areas for Continued Improvement

There were no areas for continued improvement for HWT in its emergency preparedness resulting from Energy Safety's evaluation of HWT's 2022 WMP Update.

#### **8.4.4** Areas for Continued Improvement

Energy Safety has no areas for continued improvement for HWT under the emergency preparedness section of its Base WMP.

#### 8.5 Community Outreach and Engagement

In response to Section 8.5 of the Technical Guidelines, HWT provided information on its community outreach and engagement, including its public outreach and educational awareness for wildfires, PSPS, outages, and vegetation management; public engagement in the WMP decision-making process; engagement with AFN populations, local governments, and tribal communities; collaboration on local wildfire mitigation and planning; and best practice planning as applicable. 85

Below is Energy Safety's evaluation regarding HWT's objectives and targets, maturity levels, and strengths in these areas. In addition, Energy Safety has identified an area where HWT must improve, described at the end of this section.

#### 8.5.1 Objectives and Targets

As part of its Base WMP, HWT did not provide 3-year and 10-year objectives for its community outreach and engagement programs, nor did it provide quantitative targets for its community outreach and engagement initiative activities.

Given the limited scale and scope of HWT's facilities as a transmission-only ITO without distribution or end-use customers, HWT has provided sufficient justification with its existing community outreach and engagement initiatives for marking objectives and targets as "Not Applicable."

#### 8.5.2 Maturity Survey Results

According to its responses to the 2023 Maturity Survey, HWT has a 2023 maturity level of 0.00 for community outreach and engagement. HWT projects no maturity level change for 2024 or 2025 (Figure 8.5-1).

Due to the smaller scope and scale of the ITOs, a minimum maturity level at or around 0.00 is acceptable in certain categories.

<sup>&</sup>lt;sup>85</sup> <u>Technical Guidelines</u>, Section 8.5, "Community Outreach and Engagement," pages 179-194 (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53286&shareable=true, accessed May 5, 2023).

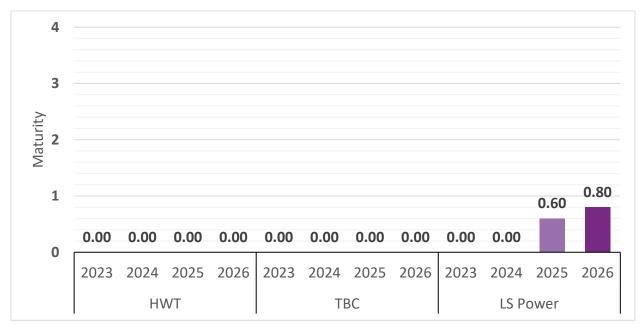


Figure 8.5-1. Cross-Utility Maturity for Community Outreach and Engagement (Minimum Values)

The utility's maturity level for the community outreach and engagement category described above is calculated using the minimum value sub-capability of each capability. Using the capability average is another way to look at HWT's performance in community outreach and engagement. The capability average is determined from the average of all component sub-capabilities and is an additional tool to evaluate the utilities' maturity. <sup>86</sup>

When the category maturity is calculated using the capability average (rather than the minimum), HWT has a maturity level for community outreach and engagement of 0.13 for 2023, and projects no change for 2024 or 2025 (Figure 8.5-2).

<sup>&</sup>lt;sup>86</sup> For further information on maturity level determinations, see Section 4 of the 2023-2025 Electrical Corporation Wildfire Mitigation Maturity Model (second revision), published February 21, 2023.



Figure 8.5-2. Cross-Utility Maturity for Community Outreach and Engagement (Average Values)

The rest of this section reports on maturity levels considering the average values.

HWT's current maturity level in this category is around the same as its peers, with Trans Bay Cable and LS Power reporting at levels 0.13 and 0.00, respectively. See Figure 8.5-2.

#### 8.5.3 HWT's WMP Strengths

HWT does not have a service territory or distribution system and does not serve end-use customers. As such, HWT does not provide direct customer support or engage with communities during an emergency. However, HWT engages and maintains communications with the CAISO and its Interconnecting Transmission Owner (SDG&E). For example, in the event of a fire, HWT states that it would contact the San Diego County Fire Authority Descanso Fire Station 45 for support, in addition to its contracted fire suppression services. 87

#### 8.5.3.1 2022 Areas for Continued Improvement

There were no areas for continued improvement for HWT in its community outreach and engagement resulting from Energy Safety's evaluation of HWT's 2022 WMP Update.

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<sup>&</sup>lt;sup>87</sup> HWT's 2023-2025 WMP, page 211.

#### **8.5.4** Areas for Continued Improvement

HWT must continue to improve in the following areas.

Given its limited footprint and scale of operations, HWT asserts that many of the efforts undertaken by larger utilities with service territories and distribution systems are not specifically applicable to HWT. As such, HWT does not have a formal process for sharing best practices with its affiliates, but rather, shares information on an ad hoc basis (e.g., information on capital improvements that may have applicable fire risk reduction benefits). 88 Given the ad hoc nature of HWT's best practice sharing, HWT does not provide examples of best practice sharing to date and marks its WMP Table 8.63 "Best Practice Sharing with Other Electrical Corporations" as "Not Applicable." 89

While sharing best practices on an ad hoc basis is acceptable given the limited scale and scope of HWT's operations and programs, HWT should be documenting such instances of best practice sharing as they occur. HWT must provide this information within its 2026-2028 Base WMP and applicable tables.

Energy Safety sets forth specific areas for improvement and associated required progress in Section 11.

<sup>88</sup> HWT's 2023-2025 WMP, page 213.

<sup>&</sup>lt;sup>89</sup> HWT's 2023-2025 WMP, pages 213-214.

#### 9. Public Safety Power Shutoffs

HWT is a transmission-only electrical corporation and does not own, operate, or maintain electric distribution facilities or have end-use customers. With no end-customers, PSPS matters are coordinated by SDG&E. However, HWT has developed a PSPS protocol to be prepared, as a last resort, to employ the use of PSPS to protect the public. <sup>90</sup> These protocols are reasonable given the scope of its operations and include documented thresholds for deenergization, evaluations prior to and during an event, and the restoration process. <sup>91</sup> HWT further notes its communication strategy and identifies the key personnel with their authorities identified in a PSPS implementation.

<sup>90</sup> HWT 2023-2025, pages 224-226.

<sup>&</sup>lt;sup>91</sup> Energy Safety's Independent Transmission Operator Supplement to the 2023-2025 Wildfire Mitigation Plan Technical Guidelines (Dec. 2022)

<sup>(</sup>https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53290&shareable=true, accessed May 5, 2023).

#### 10. HWT's Process for Continuous Improvement

In response to Sections 10, 11, and 12 of the Technical Guidelines, <sup>92</sup> HWT provided information on its lessons learned, a description of its corrective action program, and information on any Notices of Violation or Notices of Defects it has received.

Below is Energy Safety's evaluation regarding these steps to drive continuous improvement.

#### 10.1 Lessons Learned

Section 10 of the Technical Guidelines requires a utility to use lessons learned to drive continuous improvement in its WMP. Lessons learned can be divided into the three main categories: (1) internal monitoring and evaluation, (2) external collaboration with other electrical corporations, and (3) feedback from Energy Safety or other authoritative bodies. This section includes an assessment of HWT's implementation of lessons learned.

HWT identified its continued effort to be proactive with asset inspections ahead of RFW conditions and the addition of an annual wildfire simulation in the spring and early summer directly ahead of increased RFW frequency. HWT also points to its addition of onsite cameras and access to satellite tracking tools around the Suncrest Substation.

#### **10.2** Corrective Action Program

Section 11 of the Technical Guidelines requires a utility to describe its corrective action program (CAP) and a summary of the relevant portions of its existing procedures. This section includes an assessment of HWT's implementation of its CAP relative to wildfire safety, including how it prevents recurrence of risk events; addresses findings from wildfire investigations; addresses findings from Energy Safety Compliance Assurance Division; and addresses areas for continued improvement identified by Energy Safety as applicable.

HWT has a CAP in place, however, no corrective actions have been required and no deficiencies have been identified in HWT's wildfire-related compliance by Energy Safety.

#### **10.3** Areas for Continued Improvement

Energy Safety has no areas for continued improvement for HWT in these areas of its Base WMP.

<sup>&</sup>lt;sup>92</sup> <u>Technical Guidelines</u>, Section 10, pages 207-209; Section 11, pages 210-211; Section 12, pages 212-213 (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53286&shareable=true, accessed May 5, 2023).

#### 11. Required Areas for Continued Improvement

Energy Safety's evaluation of the 2023-2025 WMPs focused on each utility's strategies for reducing the risk of utility-related ignitions. The evaluation included assessing the utility's progress implementing wildfire mitigation initiatives, evaluating the feasibility of its strategies, and measuring year-to-year trends. As a result of this evaluation, Energy Safety identified areas where the utility should continue to improve its wildfire mitigation capabilities in future plans. The complete list of all HWT's areas for continued improvement follows below.

#### 11.1 Grid Design, Operations, and Maintenance

- HWT-23-01. QA/QC Process Description
  - Description: HWT states that it has procedures and checklists that provide additional detail about its QA/QC process and is evaluating changes to its QA/QC program as its operational experience grows. HWT does not provide the documents related to QA/QC or provide details on the QA/QC evaluation process.
  - o Required Progress: In its 2025 Update, HWT must provide:
    - All QA/QC "procedures and checklists" referenced in response to Data Request P-WMP\_2023-HWT-002.<sup>93</sup>
    - An analysis demonstrating the current QA/QC process effectively mitigates wildfire risk.
  - Discussed in Section 8.1, "Grid Design, Operations, and Maintenance" (8.1.3 "Asset Inspections").

#### 11.2 Community Outreach and Engagement

- HWT-23-02. Documentation of Sharing Best Practices
  - Description: HWT does not document instances of sharing best practices.
  - Required Progress: In its 2026-2028 Base WMP, HWT must provide documented examples of its sharing of best practices to date (as of the 2026-2028 submission).
  - Discussed in Section 8.5, "Community Outreach and Engagement."

<sup>&</sup>lt;sup>93</sup> Data Request OEIS-P-WMP\_2023-HWT-002 (Question 2) (<a href="https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=55635&shareable=true">https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=55635&shareable=true</a>, accessed November 13, 2023).

#### 12. Conclusion

HWT's 2023-2025 Wildfire Mitigation Plan is approved.

Catastrophic wildfires remain a serious threat to the health and safety of Californians. Electrical corporations, including HWT, must continue to make progress toward reducing utility-related ignition risk. Energy Safety expects HWT to effectively implement its wildfire mitigation activities to reduce the risk of utility-related ignitions and the potential catastrophic consequences if an ignition occurs, as well as to reduce the scale, scope, and frequency of PSPS events, if applicable.

Shannon O'Rourke

Deputy Director | Electrical Infrastructure Directorate

Office of Energy Infrastructure Safety

# DATA DRIVEN FORWARD-THINKING INNOVATIVE SAFETY FOCUSED



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#### **APPENDICES**



#### **APPENDICES**

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### **Appendix A. Glossary of Terms**

| Term          | Definition  |
|---------------|---|
| AFN           | Access and functional needs   |
| BVES          | Bear Valley Electric Service  |
| CAISO         | California Independent System Operator                                    |
| Cal Advocates | The Public Advocates Office at the California Public Utilities Commission |
| CAL FIRE      | California Department of Forestry and Fire<br>Protection                  |
| Cal OES       | California Office of Emergency Services                                   |
| CAP           | Corrective Action Program   |
| СВО           | Community-based organization  |
| CDFW          | California Department of Fish and Wildlife                                |
| CEC           | California Energy Commission  |
| CEJA          | California Environmental Justice Alliance                                 |
| CNRA          | California Natural Resources Agency                                       |
| CPUC          | California Public Utilities Commission                                    |
| D.            | CPUC decision   |
| DR            | Data request  |
| DWR           | Department of Water Resources   |
| EBMUD         | East Bay Municipal Utility District                                       |
| EFD           | Early fault detection   |

| Term                   | Definition                             |
|------------------------|--|
| EPUC                   | Energy Producers and Users Coalition   |
| EVM                    | Enhanced vegetation management         |
| FERC                   | Federal Energy Regulatory Commission   |
| FPI                    | Fire potential index                   |
| FWI                    | Fire weather index                     |
| GFN                    | Ground-fault neutralizers              |
| GIS                    | Geographic information systems         |
| GO                     | General order                          |
| GPI                    | The Green Power Institute              |
| GRC                    | General rate case                      |
| HD                     | High definition                        |
| HFRA                   | High Fire Risk Area                    |
| HFTD                   | High fire threat district              |
| HWT or<br>Horizon West | Horizon West Transmission              |
| l.                     | CPUC Investigation                     |
| ICS                    | Incident command system or structure   |
| IOU                    | Investor-owned utility                 |
| IR                     | Infrared                               |
| ISA                    | International Society of Arboriculture |
| ITO                    | Independent transmission operator      |
| kV                     | Kilovolt                               |
| Liberty                | Liberty Utilities                      |

| Term                          | Definition   |
|-------------------------------|--|
| LiDAR                         | Light detection and ranging                                |
| Maturity Model                | Electrical Corporation Wildfire Mitigation Maturity Model  |
| Maturity Survey               | Electrical Corporation Wildfire Mitigation Maturity Survey |
| MAVF                          | Multi-attribute value function                             |
| MBL                           | Medical Baseline   |
| MGRA                          | Mussey Grade Road Alliance                                 |
| ML                            | Machine learning   |
| NDVI                          | Normalized difference vegetation index                     |
| NERC                          | North American Electric Reliability Corporation            |
| NFDRS                         | National Fire Danger Rating System                         |
| NOD                           | Notice of defect   |
| NOV                           | Notice of violation  |
| ОСМ                           | Overhead circuit miles                                     |
| OEIS or<br>Energy Safety      | Office of Energy Infrastructure Safety                     |
| PG&E                          | Pacific Gas and Electric Company                           |
| PoF                           | Probability of failure                                     |
| Pol                           | Probability of ignition                                    |
| PRC                           | Public Resources Code                                      |
| PSPS                          | Public Safety Power Shutoff                                |
| Pub. Util. Code<br>or PU Code | Public Utilities Code                                      |

| Term  | Definition  |
|-------|---|
| QA    | Quality assurance   |
| QC    | Quality control   |
| QDR   | Quarterly Data Report   |
| R.    | CPUC rulemaking   |
| RAMP  | Risk Assessment and Management Phase  |
| RCRC  | Rural County Representatives of California  |
| REFCL | Rapid earth fault current limiter   |
| RFW   | Red Flag Warning  |
| RSE   | Risk-spend efficiency   |
| SAWTI | Santa Ana Wildfire Threat Index   |
| SCADA | Supervisory control and data acquisition  |
| SCE   | Southern California Edison Company  |
| SDG&E | San Diego Gas & Electric Company  |
| S-MAP | Safety Model Assessment Proceeding, now the Risk-<br>Based Decision-Making Framework Proceeding |
| SMJU  | Small and multijurisdictional utility   |
| TAT   | Tree Assessment Tool  |
| TBC   | Trans Bay Cable   |
| TURN  | The Utility Reform Network  |
| USFS  | United States Forest Service  |
| VM    | Vegetation management   |
| VRI   | Vegetation risk index   |
| WMP   | Wildfire Mitigation Plan  |

| Term | Definition                     |
|------|--------------------------------|
| WRRM | Wildfire Risk Reduction Model  |
| WSAB | Wildfire Safety Advisory Board |
| WSD  | Wildfire Safety Division       |
| WUI  | Wildland-urban interface       |

# Appendix B. Status of 2022 Areas for Continued Improvement

There were no areas for continued improvement for HWT resulting from Energy Safety's evaluation of HWT's 2022 WMP Update.

# Appendix C. Stakeholder Comments on the 2023-2025 Wildfire Mitigation Plans

Energy Safety invited stakeholders, including members of the public, to provide comments on the utilities' 2023-2025 WMPs. Opening comments on the SMJU and ITO WMPs were due on June 29, 2023, and reply comments were due on July 10, 2023.

No stakeholders provided comments that were specifically related to the ITOs.

The following individuals and organizations submitted comments related to SMJUs:

- City of Moorpark.
- California Department of Fish and Wildlife (CDFW).
- Mussey Grade Road Alliance (MGRA).
- Rural County Representatives of California (RCRC).
- The Green Power Institute (GPI).
- The Public Advocates Office at the California Public Utilities Commission (Cal Advocates).
- Julia and David Allenby.
- Cynthia Barbera.
- Curren Meechem Family.
- Maureen Isola.
- Brenda So.
- Southard.

Comments received on the 2023-2025 WMPs can be viewed in the 2023-2025 Wildfire Mitigation Plan (2023-2025-WMPs) docket log.

## Appendix D. Stakeholder Comments on the Draft Decision

Energy Safety invited stakeholders, including members of the public, to provide comments on Energy Safety's Draft Decision on HWT's 2023-2025 WMP. Opening comments were due on January 2, 2024, and reply comments were due on January 12, 2024.

No stakeholders provided comments during these comment periods.

### **Appendix E. Maturity Survey Results**

Energy Safety's 2023-2025 Electrical Corporation Wildfire Mitigation Maturity Model¹ (Maturity Model) and 2023 Electrical Corporation Wildfire Mitigation Maturity Survey² (Maturity Survey) together provided a quantitative method to assess the maturity of each utility's wildfire risk mitigation program.

The Maturity Model consists of 37 individual capabilities describing the ability of electrical corporations to mitigate wildfire risk within their service territory. The 37 capabilities are aggregated into seven categories. The seven mitigation categories are:

- A. Risk Assessment and Mitigation Selection.
- B. Situational Awareness and Forecasting.
- C. Grid Design, Inspections, and Maintenance.
- D. Vegetation Management and Inspections.
- E. Grid Operations and Protocols.
- F. Emergency Preparedness.
- G. Community Outreach and Engagement.

Maturity levels range from 0 (below minimum requirements) to 4 (beyond best practice). Electrical corporations' responses to the Maturity Survey, listed by mitigation category, are depicted in the figures and tables below. Due to the smaller scope and scale of the ITOs, a minimum maturity level at or around 0.00 is acceptable in certain categories.

Tables A-1 compare the ITOs' maturity levels across mitigation categories showing minimum values and average values. Table A-2 shows HWT's projected maturity growth throughout the WMP cycle. Figure A-1 provides a one-page look at all HWT's maturity levels for the WMP cycle, including at the capability and sub-capability levels, showing both minimum and average calculations.

<sup>&</sup>lt;sup>1</sup> 2023-2025 Electrical Corporation Wildfire Mitigation Maturity Model (Second Revised Final, Feb. 2023) (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53394&shareable=true, accessed May 5, 2023).

<sup>&</sup>lt;sup>2</sup> 2023 Electrical Corporation Wildfire Mitigation Maturity Survey (Revised Final, April 2023) (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53708&shareable=true, accessed May 5, 2023). This is the version used by Energy Safety when scoring the survey.

Table A-1. Cross-Utility Maturity Level by Category (Average Values)

| Category                                     | HWT  | TBC  | LS Power |
|--|------|------|----------|
| A. Risk Assessment and Mitigation Strategy   | 0.35 | 0.16 | 0.49     |
| B. Situational Awareness and Forecasting     | 0.67 | 0.49 | 0.08     |
| C. Grid Design, Inspections, and Maintenance | 1.07 | 0.72 | 0.28     |
| D. Vegetation Management and Inspections     | 0.94 | 0.00 | 0.56     |
| E. Grid Operations and Protocols             | 1.13 | 0.47 | 0.67     |
| F. Emergency Preparedness                    | 0.60 | 0.19 | 0.25     |
| G. Community Outreach and Engagement         | 0.13 | 0.13 | 0.00     |

Table A-2. HWT Projected Growth in Maturity throughout Current WMP Cycle by Category

#### HWT Projected Growth in Maturity throughout Current WMP Cycle by Category (Avg. to Avg.)

| Category                                     | 2023 | 2024 | 2025 | 2026 |
|--|------|------|------|------|
| A. Risk Assessment and Mitigation Strategy   | 0.35 | 0.35 | 0.35 | 0.35 |
| B. Situational Awareness and Forecasting     | 0.67 | 0.67 | 0.67 | 0.67 |
| C. Grid Design, Inspections, and Maintenance | 1.07 | 1.07 | 1.07 | 1.07 |
| D. Vegetation Management and Inspections     | 0.94 | 0.94 | 0.94 | 0.94 |
| E. Grid Operations and Protocols             | 1.13 | 1.13 | 1.13 | 1.13 |
| F. Emergency Preparedness                    | 0.60 | 0.60 | 0.60 | 0.60 |
| G. Community Outreach and Engagement         | 0.13 | 0.13 | 0.13 | 0.13 |

Figure A-1. HWT Comprehensive Maturity Survey Results

#### Capability Scores by Year and Category for HWT

|   |  |   |                         |                     | 1. Capability 2. Capability 3. Capability                              |  |                          |   |            |   |  | 4. Capability           |   |  |  | 5. Capability |                     |  |   | 6. Cap   |     |         |                             |
|---|--|---|-------------------------|---------------------|--|--|--------------------------|---|------------|---|--|-------------------------|---|--|--|---------------|---------------------|--|---|--|-----|---------|-----------------------------|
|   |  | 2023  | 2024                    | 2025                | 2026   | 2023 2024 2025 2026  |                          | 2023 2024 2025 2026   |            | 2023 2024 2025 2026   |  |                         | 2023  | 2024   | 2025 202   | 6 2023        | 2023 2024 2025 2026 |  |   |  |     |         |                             |
| A. Risk Assessment and                  |  | Statistical weather, climate, and wildfire modeling |                         |                     | Calculation of wildfire and PSPS     risk exposure for societal values |  |                          | 3. Calculation of community vulnerability to wildfire and Public Safety Power Shutoffs (PSPS) |            |   | 4. Calculation of risk and risk components |                         |   | l risk   | 5. Risk event tracking and<br>integration of lessons learned |               |                     |  | 6. Risk-informed wildfire mitigation strategy |  |     |         |                             |
| Mitigation Strategy                     | Minimum of Sub-Cap.                      | 0.0   | 0.0                     | 0.0                 | 0.0  | 0.0  | 0.0                      | 0.0   | 0.0        |   |  |                         | 0.0   | 0.0  | 0.0  | 0.0           | 0.0                 | 0.0  | 0.0 0.0                                       | 0.0  | 0.0 | 0.0 0.0 |                             |
|   | Average of Sub-Cap.                      | 0.1   | 0.1                     | 0.1                 | 0.1  | 0.1  | 0.1                      | 0.1   | 0.1        | 0.0   | 0.0  | 0.0                     | 0.0   | 0.2  | 0.2  | 0.2           | 0.2                 | 1.1  | 1.1   | 1.1 1.1  | 0.5 | 0.5     | 0.5 0.5                     |
| B. Situational Awareness and            |  | 7. Ignit  | tion likelil            | hood esti           | mation   | 8. We  | eather for               | ecasting  | ability    | 9. Wildfire spread forecasting                              |  |                         | 10. Data collection for near-real-<br>time conditions |  |  |               |                     | etection and stems   |   | 12. Centralized monitoring of real-time conditions |     |         |                             |
| Forecasting                             | Minimum of Sub-Cap.                      | 0.0   | 0.0                     | 0.0                 | 0.0  | 0.0  | 0.0                      | 0.0   | 0.0        | 0.0   | 0.0  | 0.0                     | 0.0   | 0.0  | 0.0  | 0.0           | 0.0                 | 0.0  | 0.0   | 0.0 0.0  | 0.0 | 0.0     | 0.0 0.0                     |
|   | Average of Sub-Cap.                      | 0.2   | 0.2                     | 0.2                 | 0.2  | 0.4  | 0.4                      | 0.4   | 0.4        | 0.4   | 0.4  | 0.4                     | 0.4   | 0.4  | 0.4  | 0.4           | 0.4                 | 0.0  | 0.0   | 0.0 0.0  | 2.6 | 2.6     |                             |
| C. Grid Design, Inspections, and        |  | 13. Asse  | et invent<br>data       | ory and co          | ondition   | 14. Asset inspections  |                          |   |            | 15. Asset maintenance and repair                            |  |                         |   | 16. Grid design and resiliency                           |  |               |                     | 17. Asset and grid personnel training and quality          |   |  |     |         |                             |
| Maintenance                             | Minimum of Sub-Cap.                      | 0.0   | 0.0                     | 0.0                 | 0.0  | 0.0  | 0.0                      | 0.0   | 0.0        | 0.0   | 0.0  | 0.0                     | 0.0   | 0.0  | 0.0  | 0.0           | 0.0                 | 0.0  | 0.0   | 0.0 0.0  |     |         |                             |
|   | Average of Sub-Cap.                      | 1.5   | 1.5                     | 1.5                 | 1.5  | 1.7  | 1.7                      | 1.7   | 1.7        | 1.5   | 1.5  | 1.5                     | 1.5   | 0.2  | 0.2  | 0.2           | 0.2                 | 0.5  | 0.5   | 0.5 0.5  |     |         |                             |
| D. Vegetation Management                |  | l   | egetation<br>condition  |                     | •  | 19. Vegetation inspections   |                          |   |            | 20. Vegetation treatment                                    |  |                         | 21. Vegetation personnel training and quality         |  |  |               |                     |  |   |  |     |         |                             |
| and Inspections                         | Minimum of Sub-Cap.                      | 0.0   | 0.0                     | 0.0                 | 0.0  | 0.0  | 0.0                      | 0.0   | 0.0        | 0.0   | 0.0  | 0.0                     | 0.0   | 0.0  | 0.0  | 0.0           | 0.0                 |  |   |  |     |         |                             |
|   | Average of Sub-Cap.                      | 1.5   | 1.5                     | 1.5                 | 1.5  | 1.8  | 1.8                      | 1.8   | 1.8        | 0.3   | 0.3  | 0.3                     | 0.3   | 0.3  | 0.3  | 0.3           | 0.3                 |  |   |  |     |         |                             |
| E. Grid Operations and                  |  | 22. Pr  | otective<br>device      | equipme<br>settings | nt and   | 23. Incorporation of ignition risk factors in grid control                   |                          |   |            | 24. PSPS operating model                                    |  |                         |   | 25. Protocols for PSPS re-<br>energization               |  |               |                     | 26. Ignition prevention and<br>suppression                 |   |  |     |         |                             |
| Protocols                               | Minimum of Sub-Cap.                      | 0.0   | 0.0                     | 0.0                 | 0.0  | 0.0  | 0.0                      | 0.0   | 0.0        | 0.0   | 0.0  | 0.0                     | 0.0   | 0.0  | 0.0  | 0.0           | 0.0                 | 0.0  | 0.0   | 0.0 0.0  |     |         |                             |
|   | Average of Sub-Cap.                      | 8.0   | 8.0                     | 8.0                 | 8.0  | 0.0  | 0.0                      | 0.0   | 0.0        | 1.3   | 1.3  | 1.3                     | 1.3   | 1.5  | 1.5  | 1.5           | 1.5                 | 2.0  | 2.0   | 2.0 2.0  |     |         |                             |
| F. Emergency Preparedness               |  | l   | dfire and<br>saster pre |                     |  | 1  | aboration<br>h public sa |   |            |   |  | emergend<br>tion strate | •   | 30. Preparedness and planning for<br>service restoration |  |               | ning for            | or 31. Customer support in<br>wildfire and PSPS emergencie |   |  |     | _       | fter wildfires<br>incidents |
| r. Emergency Prepareuness               | Minimum of Sub-Cap.                      | 0.0   | 0.0                     | 0.0                 | 0.0  | 0.0  | 0.0                      | 0.0   | 0.0        | 0.0   | 0.0  | 0.0                     | 0.0   | 0.0  | 0.0  | 0.0           | 0.0                 | 0.0  | 0.0   | 0.0 0.0  | 0.0 | 0.0     | 0.0 0.0                     |
|   | Average of Sub-Cap.                      | 0.8   | 0.8                     | 0.8                 | 0.8  | 0.0  | 0.0                      | 0.0   | 0.0        | 0.5   | 0.5  | 0.5                     | 0.5   | 1.8  | 1.8  | 1.8           | 1.8                 | 0.0  | 0.0   | 0.0 0.0  | 0.5 | 0.5     | 0.5 0.5                     |
| G. Community Outreach and<br>Engagement |  |   |                         | eness               |  | 34. Public engagement in electrical corporation wildfire mitigation planning |                          |   |            | 35. Engagement with AFN and socially vulnerable populations |  |                         |   | 36. Collaboration on local wildfire mitigation planning  |  |               |                     | practice sharing with other<br>electrical corporations     |   |  |     |         |                             |
|   | Minimum of Sub-Cap.  Average of Sub-Cap. | 0.0<br>0.0  | 0.0                     | 0.0<br>0.0          | 0.0<br>0.0   | 0.0  | 0.0                      | 0.0   | 0.0<br>0.3 | 0.0   | 0.0<br>0.0                                 | 0.0<br>0.0              | 0.0   | 0.0  | 0.0  | 0.0           | 0.0                 | 0.0<br>0.3   | 0.0<br>0.3                                    | 0.0 0.0<br>0.3 0.3                                 |     |         |                             |