



July 26, 2024

To: Pacific Gas and Electric Company
Vincent Tanguay
Senior Director of Electric Compliance
300 Lakeside Drive Suite 210,
Oakland, CA 94612

SUBJECT: Office of Energy Infrastructure Safety's Audit of Pacific Gas and Electric Company's 2022 Vegetation Management Work

Pursuant to the requirements of California Public Utilities Code section 8386.3(c)(5)(A), the Office of Energy Infrastructure Safety (Energy Safety) completed its audit of Pacific Gas and Electric Company's (PG&E's) 2022 vegetation management work pursuant to its 2022 Wildfire Mitigation Plan Update. Energy Safety found that PG&E did not provide information consistent with the completion of the work required for 15 of the 21 vegetation management initiatives. PG&E must submit its Corrective Action Plan response to the 2022 SVM docket¹ in Energy Safety's e-filing system within 30 days from the issuance of this audit. If you have any questions concerning this audit, please e-mail me at Sheryl.Bilbrey@energysafety.ca.gov and provide a copy to Alec Latuszek at alec.latuszek@energysafety.ca.gov and environmentalsciencedivision@energysafety.ca.gov.

Sincerely,

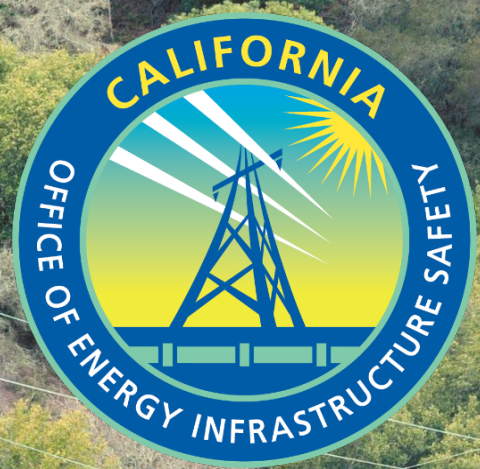
A handwritten signature in blue ink that reads "Sheryl Bilbrey".

Sheryl Bilbrey
Program Manager | Environmental Science Division
Office of Energy Infrastructure Safety

Cc:

Forest Kaser, CPUC
Leslie Palmer, CPUC
Sandra Rubio, PG&E
Wade Greenacre, PG&E

¹ All documents related to PG&E's 2022 SVM audit are available on Energy Safety's e-filing under the "2022-SVM" docket and available here: (<https://efiling.energysafety.ca.gov/Lists/DocketLog.aspx?docketnumber=2022-SVM>[accessed July 22, 2024])



OFFICE OF ENERGY INFRASTRUCTURE SAFETY
2022 SUBSTANTIAL VEGETATION
MANAGEMENT AUDIT
PACIFIC GAS AND ELECTRIC COMPANY

July 2024

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Executive Summary

The Office of Energy Infrastructure Safety (Energy Safety) completed an audit of Pacific Gas and Electric Company's (PG&E's) vegetation management commitments from its 2022 Wildfire Mitigation Plan (WMP) Update.¹ Energy Safety found that PG&E did not provide information consistent with the completion of all targeted work for 15 of its 21 vegetation management initiatives.

A detailed discussion of the audit findings is provided in Appendix A of this document. For each audit finding, PG&E must submit a response to Energy Safety within 30 days of receipt of this audit. PG&E must title its response "PG&E 2022 SVM Audit Corrective Action Plan" and submit the response on the 2022 SVM Docket in Energy Safety's E-Filing System. Requirements for the response are discussed in Section 3 of this document. Energy Safety is available to meet with PG&E to discuss the audit findings and provide any clarification necessary for PG&E to respond in a timely manner to Energy Safety's audit.

¹ [PG&E's 2022 WMP Update \(Rev. #1, July 26, 2022\) \(hereafter PG&E's 2022 WMP Update\)](https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true), p. 720 (https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true, accessed June 10, 2024).

1. OVERVIEW

Pursuant to Public Utilities Code section 8386.3(c)(5)(A), the Office of Energy Infrastructure Safety (Energy Safety) must, on an annual basis, audit the vegetation management work performed by an electrical corporation upon notification that the electrical corporation has completed a substantial portion of the vegetation management requirements in its Wildfire Mitigation Plan (WMP).² In each audit, Energy Safety must specify any failure of the electrical corporation to fully comply with the vegetation management requirements in the WMP.

Pacific Gas and Electric Company (PG&E) submitted its substantial vegetation management (SVM) 2022 completion notification on February 24, 2023. As a result, Energy Safety has completed its SVM audit of PG&E's vegetation management program activities for 2022.

The 2022 WMP Update Guidelines included 21 vegetation management initiatives.³ PG&E's 2022 WMP Update included all of those 21 vegetation management initiatives.⁴ As part of the SVM audit process, Energy Safety identified both vegetation management quantitative commitments (e.g., number of inspections completed) and verifiable statements (e.g., training of personnel) from the PG&E 2022 WMP Update. Energy Safety then compared vegetation management commitments and statements to the work performed by PG&E in 2022.

Table 1 of this report includes a list of all vegetation management activities and Energy Safety's determination of whether PG&E completed the required work for 2022. The detailed analysis, supporting documents and data, and findings for each initiative are included in Appendix A.

² [FindLaw.com - California Code, Public Utilities Code - PUC § 8386.3 \(updated Jan. 2023\)](https://codes.findlaw.com/ca/public-utilities-code/puc-sect-8386-3/), subd. (c)(5)(A) (<https://codes.findlaw.com/ca/public-utilities-code/puc-sect-8386-3/>, accessed June 11, 2024).

³ [2022 Wildfire Mitigation Plan Update Guidelines \(published Dec. 2021\) \(hereafter Update Guidelines\)](#), attachment 2, p. 92 (<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=51912&shareable=true>, accessed May 10, 2024).

⁴ [PG&E's 2022 WMP Update](#), p. 720 (<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 10, 2024).

2. AUDIT FINDINGS

The audit findings for the PG&E 2022 WMP Update vegetation management initiatives are listed in Table 1 and detailed in Appendix A.

Table 1. PG&E 2022 SVM Audit Findings

2022 Vegetation Management Initiative	Audit Finding
7.3.5.1 Additional Efforts to Manage Community and Environmental Impacts	Did Not Perform All Required Work
7.3.5.2 Detailed Inspections and Management Practices or Vegetation Clearances around Distribution Electrical Lines and Equipment	Did Not Perform All Required Work
7.3.5.3 Detailed Inspections and Management Practices for Vegetation Clearances Around Transmission Electric Lines and Equipment	Did Not Perform All Required Work
7.3.5.4 Emergency Response Vegetation Management due to Red Flag Warning or Other Urgent Climate Conditions	Did Not Perform All Required Work
7.3.5.5 Fuels Management (including all wood management) and Reduction of “slash” from Vegetation Management Activities	Performed All Required Work
7.3.5.6 Improvement of Inspections	Did Not Perform All Required Work
7.3.5.7 Remote Sensing Inspections of Vegetation Around Distribution Electric Lines and Equipment	Performed All Required Work
7.3.5.8 Remote Sensing Inspections of Vegetation Around Transmission Electric Lines and Equipment	Performed All Required Work
7.3.5.9 Other Discretionary Inspections of Vegetation Around Distribution Electric Lines and Equipment, Beyond Inspections Mandated by Rules and Regulations	Did Not Perform All Required Work Refer to 7.3.5.20
7.3.5.10 Other Discretionary Inspections of Vegetation Around Transmission Electric Lines and Equipment, Beyond Inspections Mandated by Rules and Regulations	Did Not Perform All Required Work Refer to 7.3.5.3

7.3.5.11 Patrol Inspections of Vegetation Around Distribution Electric Lines and Equipment	Did Not Perform All Required Work Refer to 7.3.5.2
7.3.5.12 Patrol Inspections of Vegetation Around Transmission Electric Lines and Equipment	Did Not Perform All Required Work Refer to 7.3.5.3
7.3.5.13 Quality Assurance / Quality Control of Vegetation Management	Did Not Perform All Required Work
7.3.5.14 Recruiting and Training of Vegetation Management Personnel	Did Not Perform All Required Work
7.3.5.15 Identification and Remediation of “At-Risk Species”	Performed All Required Work
7.3.5.16 Removal and Remediation of Trees with Strike Potential to Electric Lines and Equipment	Did Not Perform All Required Work Refer to 7.3.5.2 and 7.3.5.3
7.3.5.17 Substation Inspections	Did Not Perform All Required Work
7.3.5.18 Substation Vegetation Management	Did Not Perform All Required Work Refer to 7.3.5.17
7.3.5.19 Vegetation Management System	Performed All Required Work
7.3.5.20 Vegetation Management to Achieve Clearances Around Electric Lines and Equipment	Did Not Perform All Required Work
7.3.5.21 Vegetation Management Activities Post-Fire	Performed All Required Work

3. PG&E AUDIT RESPONSE

For each initiative listed in Table 1 with a finding that work was not performed, PG&E must provide Energy Safety with a response that addresses the following criteria:

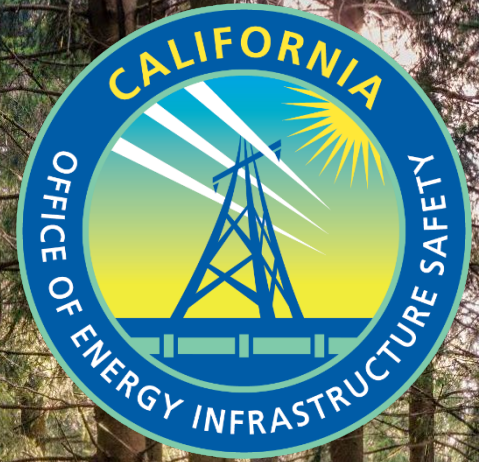
- 1) Should PG&E disagree with an audit finding that all work was not performed per the WMP, PG&E must provide the basis for that conclusion including detailed supporting documentation and rationale for that response.
- 2) If PG&E contends that the intent of the initiative was met because either a large percentage of the work was completed and/or other vegetation management actions taken by PG&E addressed the wildfire risk at issue, PG&E must provide specific details and documentation supporting that conclusion.
- 3) Should PG&E agree with the audit finding that all work was not performed for a vegetation management initiative, PG&E must provide the following in a corrective action plan:
 - a. Data and/or supporting documents explaining why a commitment was missed;
 - b. The circumstances or mitigating factors as to why a commitment was missed;
 - c. If PG&E was aware of the missed commitment during the 2022 compliance period, a detailed accounting of any corrective action measures implemented since the end of the 2022 compliance period to avoid future missed commitments including long term strategies to reduce or eliminate wildfire risk; and
 - d. Additional actions PG&E plans to implement to ensure commitments of a similar nature are not missed in the future.
- 4) PG&E must adhere to the following requirements to address systemic issues identified in the 2022 SVM Audit:
 - a. PG&E must maintain records of any legacy databases when transitioning to new database systems and be able to provide records to Energy Safety from PG&E's legacy databases upon request.

4. 2022 SVM AUDIT CONCLUSION

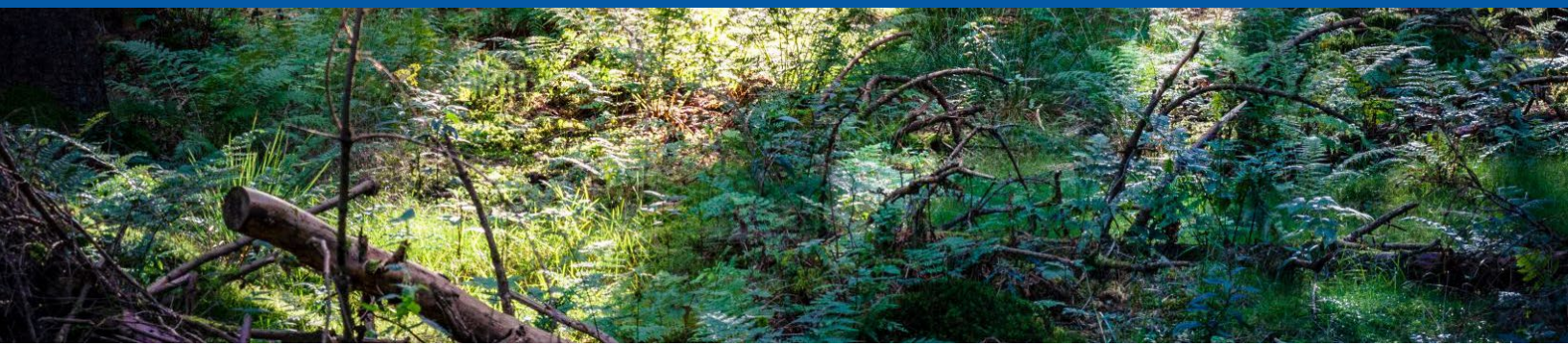
Energy Safety reviewed the 21 vegetation management initiatives detailed in PG&E's 2022 WMP Update and found PG&E was unable to provide supporting documentation or information consistent with statements and/or targets for 15 of the 21 vegetation management initiatives.

For each audit finding, PG&E must submit a response per the requirements outlined in Section 3 to Energy Safety within 30 days of receipt of this audit.

This audit is not an assessment of the quality of PG&E's execution of its vegetation management program.



APPENDIX / ANALYSIS, SUPPORTING DOCUMENTATION AND FINDING



Appendix A

Each vegetation management initiative listed in Pacific Gas and Electric Company's (PG&E's) 2022 Wildfire Mitigation Plan (WMP) Update was analyzed by the Office of Energy Infrastructure Safety (Energy Safety) as part of this audit by identifying the WMP numeric commitment or qualitative statement and comparing that commitment or statement to the work performed by PG&E in 2022. PG&E's WMP Update included 21 vegetation management initiatives. Energy Safety conducted an audit of all commitments and/or statements for each initiative; therefore, determination of whether all work was complete for each initiative was based on verification that all WMP numeric commitments or qualitative statements were completed for each initiative.

As shown in Table 1, Energy Safety determined PG&E could not provide supporting documentation or information demonstrating completion of all work for 15 of the 21 vegetation management initiatives in its 2022 WMP Update. Below is a summary of each WMP vegetation management initiative commitment or statement, the data or supporting documentation used to verify the commitment or statement, and the associated finding.

A.1 Initiative 7.3.5.1: Additional Efforts to Manage Community and Environmental Impacts

The purpose of this initiative is the “Plan and execution of strategy to mitigate negative impacts from utility vegetation management to local communities and the environment, such as coordination with communities, local governments, and agencies to plan and execute vegetation management work.”⁵

Statements, Supporting Information, and Analysis

Statement 1

Statement: “Communication efforts to mitigate community and environmental impacts are performed within all PG&E regions by various PG&E lines of business (LOB), such as [vegetation management] VM, Governmental Relations, External Communications and Local Customer Experience.”⁶

Supporting Information and Analysis: PG&E provided a schedule of meetings of its Local Government Forum that occurred between February and June 2022 and were held in approximately 132 jurisdictions in PG&E’s service territory.⁷ PG&E also provided dated presentation materials and talking points for the Yuba County Local Government Forum held on March 16, 2022.⁸ The presentation materials included a section on EVM in Yuba County,” which discussed PG&E’s historical work, current progress, and 2022 EVM targets in terms of miles.

PG&E also provided calendar invites for regional meetings held with Town of Paradise, City of Grover Beach, Calistoga City, Lemoore City, and City of Brentwood throughout the months of February and April 2022. As part of these meetings, PG&E provided region-specific materials to the North Coast, North Valley and Sierra, Bay Area, South Bay and Central Coast, and Central Valley regions.⁹ Region-specific materials included broadcast reports with statistics supporting a variety of regional webinars on wildfire safety, regional working group meeting materials, regional weather event reports, and others.¹⁰ Among materials provided to all

⁵ [Update Guidelines](#), attachment 2, p. 92

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=51912&shareable=true>, accessed June 10, 2024).

⁶ [PG&E’s 2022 WMP Update](#), p. 721.

⁷ Response to DR-223, question 1; attachment “DRU13344_Q01_Atch01_PGE_LGF Weekly Status Update_20220524_Redacted.xlsx.”

⁸ Response to DR-223, question 1; attachments “DRU13344_Q01_Atch02_PGE_Yuba County_20220316.pdf” and “DRU13344_Q01_Atch03_PGE_Yuba County TP_20220316.pdf.”

⁹ Response to DR-223, question 1; “DRU13344_2022 SVM 7.3.5.1_DR_OEIS_D001.pdf.”

¹⁰ Response to DR-223, question 1; “DRU13344_2022 SVM 7.3.5.1_DR_OEIS_D001.pdf,” pp. 1, 2, 3, 4.

regions were a schedule (in tabular format) with planned and completed Enhanced Vegetation Management (EVM) Landowner Postcard Notifications and Safety Inspection Notices,¹¹ disseminated via the PG&E website.

Conclusion: PG&E provided information consistent with the completion of work identified in this statement.

Statement 2

Statement: “The various forms of communication used include letters, postcards, door hangers, fact sheets, brochures, presentation materials, Interactive Voice Response [IVR] outbound calling, website, social media, e-mail letters, texting, and work plan portals.”¹²

Supporting Information and Analysis: PG&E provided examples of 2022 communication templates distributed throughout its service territory, including:

1. Postcard mailer templates from September 2022 to be provided to non-customer landowners prior to the performance of EVM tree work¹³ and EVM pre-inspections.¹⁴
2. A door hanger template notifying customers of vegetation management work on their properties, such as tree trimming and cutting and herbicide treatment. The template included contact information to coordinate property access.¹⁵
3. An annual mailer template from June 2022 informing customers in the HTFD about PG&E’s EVM activities, safety reminders, and additional resources.¹⁶
4. A Customer Process Fact Sheet template from April 2022 describing PG&E’s EVM process, what customers can expect for the period, and providing relevant PG&E contact information and resources.¹⁷
5. A Non-Contact Letter template notifying unresponsive customers about PG&E’s vegetation management plans.¹⁸

¹¹ Response to DR-223, question 1; attachment “DRU13344_Q01_Atch11_2022 EVM Landowner Postcard Notifications.xlsx.”

¹² [PG&E’s 2022 WMP Update](#), p. 721

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

¹³ Response to DR-223, question 2; attachment “DRU13344_Q02_Atch01_VM Tree Work Notice Postcard_September2022_PRINT.pdf.”

¹⁴ Response to DR-223, question 2; attachment “DRU13344_Q02_Atch04_PGE_VM Inspection Postcard_September2022_PRINT.pdf.”

¹⁵ Response to DR-223, question 2; attachment “DRU13344_Q02_Atch06_FINAL_VM Inspection Door Hanger_20211209.pdf.”

¹⁶ Response to DR-223, question 2; attachment “DRU13344_Q02_Atch07_APPROVED_VM Annual Mailer_June 2022.pdf.”

¹⁷ Response to DR-223, question 2; attachment “DRU13344_Q02_Atch08_PGE_VM_Customer Process Fact Sheet_April 2022.pdf.”

¹⁸ Response to DR-223, question 2; attachment “DRU13344_Q02_Atch11_APPROVED_EVM Customer Non-Contact_May 2022.pdf.”

PG&E also provided screenshots of IVR memos used in 2022 designed to be sent to customers before EVM tree work and before pre-inspections.¹⁹

Lastly, PG&E provided screenshots of social media posts published by PG&E via Facebook in 2022. The social media posts communicated information relating to PG&E's 2022 WMP Update, plans, and progress on vegetation management work at the regional level, and town hall meetings.²⁰

Conclusion: PG&E provided information consistent with the completion of work identified in this statement.

Statement 3

Statement: "PG&E plans to continue customer outreach across EVM and Routine programs through multiple touchpoints and continued advance notifications including prior to inspections, during tree work, and after post tree work. PG&E expects to extend our planning and customer outreach approach across all VM programs, where applicable."²¹

Supporting Information and Analysis: PG&E stated that "its customer outreach approach did not expand across all VM programs due to the transition of VM programs to One VM, [a new vegetation management enterprise system], from the Legacy systems."²²

While PG&E did provide examples of customer outreach for the EVM program, PG&E was unable to provide documentation of customer outreach for the other VM programs. As part of the Corrective action response, PG&E must include details regarding PG&E's transition from its legacy database to the One VM Tool and how that affected PG&E's customer outreach abilities and record keeping across all the VM programs.

For the EVM program only, PG&E provided examples of advance notification to customers and landowners prior to inspection and tree work for its EVM program. PG&E provided an Outbound Tree Trimming IVR summary for 2022 which reported, in tabular format, the number of calls placed each month as part of the EVM program, including the resolution/result of each call (i.e. Answered by Customer, Answering Machine, Busy, Did Not Answer, etc.).²³

¹⁹ Response to DR-235, question 1; attachment "DRU13713_Energy Safety-DR-235_Audit_DR_OEIS_D001.pdf," p. 1.

²⁰ Response to DR-223, question 2; attachment "DRU13344_Q02_Atch09_PG&E Facebook - Social Media 2022.pdf."

²¹ [PG&E's 2022 WMP Update](#), p. 722

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

²² Response to DR-223, question 2; attachment "DRU13344_2022 SVM 7.3.5.1_DR_OEIS_D001.pdf," p. 6.

²³ Response to DR-223, question 4; attachment "DRU13344_Q04_Atch01_Out Bound Tree Trimming IVR 2022.pdf."

PG&E also provided five EVM project examples conducted in the Low Gap, Jameson, Cloverdale, Willits, Corning, and Apple Hill circuit protection zones in 2022. For these five EVM project areas, PG&E provided tabular documentation supporting the dates of outreach conducted prior to inspections, during tree work and after tree work. They also provided Pre-Inspection IVR and Postcard Notifications disseminated between zero and 73 days before the Pre-Inspection Work Start Date and Tree Trimming IVR and Postcard Notifications disseminated between 1 and 68 days before the Tree Trimming Work Start Date.

Conclusion: PG&E did not provide information consistent with the completion of all work identified in this statement.

Statement 4

Statement: “PG&E currently plans to leverage our P6 database, that was developed in 2021, to provide alignment and visibility into outreach and work plans across various teams.”²⁴

Supporting Information and Analysis: PG&E stated that the VM Operations team leveraged its P6 database throughout the year. PG&E provided schedules and internal emails to support how P6 provided alignment and visibility into outreach and work plans across various teams. For example, PG&E included an internal August 2022 email which described the weekly process for updating and accessing EVM Schedule and Performance Reports, and an overview of the P6 update process.²⁵ PG&E included two reports referenced in the monthly EVM Schedule and Performance Reports emails, both of which were derived from PG&E’s 2022 P6 database and were used to support work plans and provide project and program updates across VM teams.²⁶

PG&E also provided an example of a VM Schedule & Performance Executive Summary email sent to various Senior Program Managers in August 2022. The email contained a summary dashboard reporting weekly changes in PG&E’s Schedule Performance Index (SPI), a metric developed and tracked via the All Regions Time-Distributed Report, which leverages the P6 database to monitor schedule adherence. The SPI metric was disaggregated by region and VM, EVM and Routine activities.²⁷

Conclusion: PG&E provided information consistent with the completion of work identified in this statement.

²⁴ [PG&E’s 2022 WMP Update](#), p. 722

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

²⁵ Response to DR-223, question 5; attachment “DRU13344_Q05_Atch04_EVM Schedule & Performance Reports – Aug 1st, 2022_Redacted.pdf.”

²⁶ Response to DR-223, question 5; attachments “DRU13344_Q05_Atch01_All Regions Time Distributed Report - Monthly and Daily 1800 Mile Plan ExCharts v6 BM_Redacted.xlsx,” and “DRU13344_Q05_Atch05_LCE_MarComm, LPA & LGA Update file_Redacted.pdf.”

²⁷ Response to DR-223, question 5; attachment “DRU13344_Q05_Atch03_VM Schedule & Performance Executive Summary – 08.01.22_Redacted.pdf.”

Finding

PG&E did not provide information consistent with the completion of all work identified in Initiative 7.3.5.1: Additional Efforts to Manage Community and Environmental Impacts. PG&E must supply a corrective action response addressing the findings identified in statement 3 above.

A.2 Initiative 7.3.5.2: Detailed Inspections of Vegetation Around Distribution Electric Lines and Equipment

The purpose of this initiative is “Careful visual inspections and maintenance of vegetation around the distribution right-of-way, where individual trees are carefully examined, visually, and the condition of each rated and recorded. Describe the frequency of inspection and maintenance programs.”²⁸

Statements, Supporting Information, and Analysis

Statement 5

Statement: “PG&E’s VM program inspects approximately 80,000 miles of overhead distribution electric facilities on a recurring cycle.”²⁹

Supporting Information and Analysis: PG&E stated that its VM program inspected approximately 80,000 miles of overhead distribution electric facilities in 2022 and provided a schedule reporting all routine vegetation management activities completed in 2022.³⁰ PG&E stated in its 2022 WMP Update that “inspection periods start on November 15th of the year prior.”³¹ Based on PGE’s provided schedule, PG&E’s VM program inspected 79,701 miles, or 99%, of PG&E’s target mileage between November 2021 and December 2022.³²

Conclusion: PG&E provided evidence reflecting completion of the vast majority of the identified miles, and the approved 2022 WMP Update target was approximately 80,000 miles;

²⁸ [Update Guidelines](#), attachment 2, p. 92.

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=51912&shareable=true>, accessed June 10, 2024).

²⁹ [PG&E’s 2022 WMP Update](#), p. 723

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

³⁰ Response to DR-223, question 6; attachment “DRU13344_Q06_Atch01_2022_Local Maintenance_Project Status Review.xlsx.”

³¹ [PG&E’s 2022 WMP Update](#), p. 728

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

³² Response to DR-223, question 6; attachment “DRU13344_Q06_Atch01_2022_Local Maintenance_Project Status Review.xlsx.”

therefore, Energy Safety finds PG&E provided information consistent with the completion of work identified in this statement.

Statement 6

Statement: “PG&E’s distribution VM program includes several different types of inspections and patrols designed to maintain compliance with state and federal laws and regulations including General Order (GO) 95, Rule 35 and California Public Resources Code (PRC) Sections 4292 and 4293, and in some cases, such as EVM, go beyond these regulatory and statutory requirements. Through these inspections, PG&E can identify the following issues for maintenance to be completed consistent with legal and regulatory requirements: Dead, dying and declining trees, or dead portions of trees including dead overhangs that can contact PG&E facilities if they fail; Green trees observed within the Minimum Distance Requirement (MDR) or with the potential to encroach within the MDR before the next patrol cycle; Trees causing strain or abrasion on secondary lines; and Abnormal field conditions.”³³

Supporting Information and Analysis: PG&E provided a copy of its Vegetation Management Second Patrol Procedure as well as supplemental inspection and patrol. These procedures provide instructions for performing second patrol inspections and tree trimming within State Responsibility Areas (SRA), Wildland Urban Interface (WUI) areas, Fire Hazard Severity Zones (FHSZ), and designated High Fire Threat Districts (HFTD). The scope of work as documented within these procedures addressed the following concepts:

- Dead, dying, and declining trees, or dead portions of trees including dead overhangs, that can contact PG&E facilities if they fail,
- Green trees observed within the minimum distance requirement (MDR) or with the potential to encroach the MDR before the next patrol cycle,
- Green hazard trees with the potential to impact the electric facilities,
- Trees causing strain or abrasion on secondary lines, and
- Abnormal field conditions

The target audience of the second patrol procedure included:

- PG&E vegetation management (VM) personnel
- VM second patrol contractors, including pre-inspector (PI), tree crew general foreman (GF), quality control (QC), and quality assurance (QA) personnel.

In addition to the stated scope of work, the procedures identified and referenced the relevant regulatory compliance requirements including:

- California Public Utilities Commission (CPUC) General Order (G.O.) 95, Rule 35,

³³ [PG&E’s 2022 WMP Update](#), p. 723

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

- G.O. 95, Rule 18, Section B,
- Public Resource Code (PRC) 4292, and
- PRC 4293.³⁴

Conclusion: PG&E provided information consistent with the completion of work identified in this statement.

Statement 7

Statement: “The VM Tree Mortality Patrol program performs scheduled Tree Mortality patrols approximately six months before or after the routine patrol on overhead primary and secondary distribution facilities, primarily within HFTD and SRAs/Federal Responsibility Areas (FRA) to maintain radial clearance between vegetation and conductors by identifying trees that will encroach within the MDRs required by law and/or PG&E procedures and by identifying dead, dying and declining trees that are expected to fail and strike conductors. PG&E has implemented a Tree Mortality Maintenance plan that commits to completing the identified work within 180 days for HFTD areas and within 365 days for non-HFTD areas.”³⁵

Supporting Information and Analysis: PG&E provided an Excel file listing all trees scheduled for Tree Mortality work that were associated with PG&E’s project year 2022 data. The file identified the following attributes: number of trees inspected and prescribed tree work, HFTD and non-HFTD designation, Mortality Patrol Date (i.e. date of inspection), Mitigation Date (i.e. date work was completed), and Constraint Type (i.e. explanations for any work constraints), among other attributes.³⁶ Based on the file provided, a total of 65,485 trees were inspected and prescribed tree work during PG&E’s Tree Mortality Program in 2022, of which 57,229 inspected trees with prescribed work were in HFTD areas and 8,256 inspected trees with prescribed work were in Non-HFTD areas.

Of the 57,229 HFTD trees inspected and prescribed work in 2022:

- 47,055 trees (82%) had a reported Mitigation Date within 180 days of the inspection date.
- 8,585 trees (15%) had a reported Mitigation Date ranging from 181-802 days after the inspection date.
- 1,583 trees (3%) had no reported Mitigation Date and were listed as “Pending.”
- Six trees had a reported Mitigation Date that occurred *before* the inspection date.

³⁴ Response to DR-223, question 7; attachment “DRU13344_Q07_Atch01_TD-7102P-23_Vegetation_Management_Second_Patrol_Rev_2[1]_Redacted DRU13344_Q07_Atch01_TD-7102P-23.pdf.”

³⁵ PG&E’s 2022 WMP Update, p. 725

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

³⁶ Response to DR-223, question 9; attachment “DRU13344_Q09_Atch01_Project_year_2022_2nd_Patrol_Tree_Records[1].xlsx.”

Of the 8,256 non-HFTD trees inspected and prescribed work in 2022:

- 7,770 trees (94%) had a reported Mitigation Date within 365 days of the inspection date.
- 182 trees (2%) had a reported Mitigation Date ranging from 367-737 days of the inspection date.
- 303 trees (4%) had no reported Mitigation Date and were listed as “Pending.”
- One tree had a reported Mitigation Date that occurred *before* the inspection date.

In reviewing the various constraints listed in the “Constraint Type” column of the file, PG&E listed “Encroachment Permit,” “Riparian,” and “Refusal” as some of the common reasons for delayed work in HFTD and non-HFTD areas.

PG&E did not follow the Tree Mortality maintenance plan described in PG&E’s 2022 WMP Update to remove all identified work within 180 days for HFTD areas and within 365 days for non-HFTD areas. In addition, the provided data indicates that several trees that were inspected and prescribed work during 2022 still had unconfirmed mitigation dates with a “Pending” status as of April 22, 2024.

Conclusion: PG&E did not provide information consistent with the completion of work identified in this statement.

Statement 8

Statement: “Inspect and clear (where clearance is needed) all poles identified in PG&E’s Vegetation Management Database as of October 1, 2021, in HFTD areas or HFRA, not required by PRC 4292 and barring External Factors. Any assets discovered between October 1, 2021, and August 31, 2022, will be inspected and cleared (where clearance is needed) by the target due date, barring External Factors. Any assets discovered after August 31, 2022, will be inspected and cleared (where clearance is needed) within 45 days of when added to the Vegetation Management Database, barring External Factors.”³⁷

Supporting Information and Analysis: This statement relates to PG&E’s 2022 WMP Update target E.02 and was given a target due date of October 1, 2022. PG&E stated that:

[PG&E’s] Pole Clearing program completed inspection and clearing, where clearing is needed, of 8,356 poles cumulatively within the current annual inspection cycle. The language in the initiative target focuses on all poles identified in PG&E’s Vegetation Management Database as of October 1, 2021, in HFTD areas or HFRA, not required by PRC 4292 and barring External Factors. However, as a result of challenges in our legacy

³⁷ PG&E’s 2022 WMP Update, p. 727

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

recordkeeping system, we were unable to establish a precise baseline pole population as of October 1, 2021. To validate the pole population and completion of initiative target E.02, our pole clearing team captured the data in the legacy system as of April 4, 2022, and reviewed the inspection records that had taken place from October 1, 2021 (the start of the program) to April 4, 2022. This created the baseline database of poles for validating completion of the initiative target. Based on this approach, we believe that we have completed initiative target E.02.

We plan to make improvements to our legacy system to better track the number of poles in our database and that are inspected and cleared as a part of our Pole Clearing program. We are developing a process to address documentation gaps identified in 2022 until our legacy system and program has transitioned to the One Veg technology tool.”³⁸

PG&E provided an Excel file documenting the completed inspection and clearance work (where clearance was needed) of 8,356 distribution poles between October 1, 2021, and August 23, 2022. ³⁹ The file included HFTD and HFRA area status, pole equipment type, and unique identification number for each pole.

PG&E stated that no assets for pole clearing were discovered after August 31, 2022.⁴⁰ Thus, PG&E did not inspect and clear (where clearance is needed) within a 45 day timeline any assets discovered after August 31, 2022.

Because PG&E stated that it identified “documentation gaps” in its database and did not explain to Energy Safety why PG&E could not create a list of poles meeting the criteria listed in statement 8 above, Energy safety found PG&E’s work inconsistent with the language used in statement 8 above. Further, upon request of the total number of poles that existed in PG&E’s service area in 2022 and that were both (1) in HFTD areas or HFRA, and (2) are not required to be inspected and cleared by Public Resources Code section 4292, PG&E could only reference the 8,356 distribution poles identified in the discussion above and could not provide an updated total number of poles in its system.⁴¹

Conclusion: PG&E did not provide information consistent with the completion of work identified in this statement.

³⁸ PG&E’s Revised Quarterly Data Report (QDR) for Fourth Quarter 2022, submitted on March 1, 2023, Table 1, cell AF-40.

³⁹ Response to DR-235, question 7; attachment “DRU13713_Q007_Atch01_E.02 Pole Clearing_Redacted.xlsx.”

⁴⁰ Response to DR-235, question 7; attachment “DRU13713_Energy Safety-DR-235_Audit_DR_OEIS_D002_Redacted.pdf.”

⁴¹ Response to DR-251, question

Statement 9

Statement: “PG&E will inspect and clear, where clearance is needed, 80,258 distribution poles subject to PRC 4292 in State Responsibility Areas identified by PRC 4292, barring External Factors or poles that are exempt under Title 14 Cal. Code of Regulations 1255.”⁴²

PG&E’s approved 2022 WMP Update included a reference that per section 7.3.5.13, work begins October 1 and concludes September 30 of the following year.⁴³

PG&E’s approved 2022 WMP Update also included a reference that “this number may change as poles are added, removed, or have a change in status during the pole clearing program cycle. Any assets discovered between October 1, 2021 and August 31, 2022 will be inspected and cleared (where clearance is needed) by the target due date, barring External Factors. Any assets discovered after August 31, 2022 will be inspected and cleared (where clearance is needed) within 45 days of when added to the Vegetation Management Database, barring External Factors.”⁴⁴

Supporting Information and Analysis: PG&E provided an Excel file indicating that PG&E inspected and cleared (where clearance was needed) 80,208 distribution poles between October 4, 2021, and September 29, 2022.

PG&E’s target was 80,258 poles. PG&E stated that it cleared 50 less poles because its pole clearing target “is based on work performed in the prior year. However, the final count can fluctuate based on poles being added, removed, or having a change in status during the pole clearing program cycle.”⁴⁵ PG&E provided an Excel file listing 1,841 poles that were identified with new administrative boundaries in 2022.⁴⁶ The Excel file indicates that PG&E’s target changed due to poles having a change in administrative status during PG&E’s pole clearing cycle. The documentation provided is consistent with the reference in PG&E’s approved 2022 WMP Update.⁴⁷

Conclusion: PG&E provided information consistent with the completion of work identified in this statement.

⁴² [PG&E’s 2022 WMP Update](#), page 727

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

⁴³ [PG&E’s 2022 WMP Update](#), p. 775

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

⁴⁴ [PG&E’s 2022 WMP Update](#), page 727

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

⁴⁵ Response to DR-235, question 10; attachment “DRU13713_Energy Safety-DR-235_Audit_DR_OEIS_D002_Redacted.pdf.”

⁴⁶ Response to DR-235, question 10; attachment “DRU13344_Q10_Atch01_VMDR-2820_Redacted.xlsx.”

⁴⁷ [PG&E’s 2022 WMP Update](#), p. 727

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

Statement 10

Statement: “Complete EVM work on 1,800 risk ranked distribution circuit miles, barring External Factors.”⁴⁸

Supporting Information and Analysis: PG&E’s non-spatial QDR submission from Q4 2022 indicates that PG&E completed 1,921 circuit miles of EVM work in 2022, of which 98.7% was performed on the highest 20% risk-ranked miles.⁴⁹ Thus, PG&E exceeded its WMP Update target of 1,800 miles in 2022. All completed EVM work was completed in HFTD Tier 2 or Tier 3 areas, as confirmed by PG&E’s geospatial 2022 QDRs.⁵⁰

Conclusion: PG&E provided information consistent with the completion of work identified in this statement.

Statement 11

Statement: “In order to perform VM inspection work, permits may at times be required. In these circumstances, we will work with the appropriate governmental entity or jurisdictional agency to obtain necessary permits or enter into programmatic agreements. For example, PG&E has been involved in discussions with the California Coastal Commission regarding programmatic agreements to allow for inspections in areas subject to Coastal Commission jurisdiction.”⁵¹

Supporting Information and Analysis: PG&E provided five permits obtained by PG&E in 2022 from the U.S. Forest Service (USFS), Six Rivers National Forest, California Department of Parks and Recreation (CDPR) in Angel Island State Park (SP) within Marin County, Bureau of Land Management (BLM) land in Amador County, California, and USFS land in Butte County, California. The permit notifications fell under three programmatic permits: (1) United States Forest Service Master Permits and Easements Operations and Maintenance Plan, (2) California State Parks Near Term Agreement, and (3) Bureau of Land Management Instructional Memorandum (BLM IM). The scope of work for the permits included vegetation clearance, tree trimming and tree removals, CEMA Patrol work, and other routine vegetation management work.⁵²

With respect to PG&E’s efforts to obtain a programmatic agreement with the California Coastal Commission (CCC), PG&E provided bi-weekly recurring calendar invites which

⁴⁸ [PG&E’s 2022 WMP Update](#), p. 727

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

⁴⁹ PG&E’s Revised Quarterly Data Report (QDR) for Fourth Quarter 2022, submitted on March 1, 2023, Table 1.

⁵⁰ PG&E’s geospatial 2022 quarter 4 Quarterly Data Report (QDR), VM Detailed Inspection of Vegetation Around Distribution Project Line 7.3.5.2 Q4.

⁵¹ [PG&E’s 2022 WMP Update](#), p. 725

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

⁵² Response to DR-223, question 11; attachment “DRU13344_Q11_Atch01_2022PermitNotifications.xlsx.”

supported regular meetings between PG&E and CCC.⁵³ PG&E also included a copy of an email between PG&E and CCC, which discussed plans for outlining a Master Permit and establishing next steps.⁵⁴

Conclusion: PG&E provided information consistent with the completion of work identified in this statement.

Statement 12

Statement: “The EVM Tree Weighted Prioritization was used in 2021 and is currently being used in 2022 to create a risk ranked EVM Scope of Work.”⁵⁵

Supporting Information and Analysis: PG&E provided a schedule showing the risk ranked EVM Scope of Work used in 2022. The scope of work ranks PG&E’s Circuit Protection Zones by “Risk Tranche,” a field calculation based on PG&E’s “Tree Weighted Rank” and derived from a “Tree Weighted Risk Score.” Risk Tranche categories were:

- Tranche 1: Less than or equal to 10%,
- Tranche 2: 10-20%,
- Tranche 3: 20-30%,
- Tranche 4: 30-40%,
- Tranche 5: 40-50% and
- Tranche 6: more than 50%.

The schedule also included a User Guide tab with a log indicating version updates made throughout the year, along with updates to the work plan for 2022. Based on the work plan documented, PG&E prioritized 2022 EVM Scope of Work based on the assigned risk tranches.⁵⁶

Conclusion: PG&E provided information consistent with the completion of work identified in this statement.

⁵³ Response to DR-223, question 12; attachment “DRU13344_Q12_Atch01_Coastal PG&E Check-In_Redacted.pdf.”

⁵⁴ Response to DR-223, question 12; attachment “DRU13344_Q12_Atch02_FW_Coastal PG&E Check-in_Redacted.pdf.”

⁵⁵ [PG&E’s 2022 WMP Update](#), p. 726

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

⁵⁶ Response to DR-223, question 13; attachment “DRU13344_Q13_Atch01_2022 EVM Work Scope_20220705_v3_Redacted.xlsx.”

Statement 13

Statement: “PG&E expects to implement better tracking metrics through the Structured Learning Path (SLP) in order to ensure proper development of personnel within all VM programs.”⁵⁷

Supporting Information and Analysis: PG&E provided a training tracker showing primary tracking for internal employees on the SLP in 2022. Among the metrics included were OJT Course Title, Completion Status, Percentage of Completion, Follow-Up Flag, Pass/Fail Results, Start and End Dates, Planned Next Steps, Type of Training, and Required Training Flag. Additionally, the training tracker included Checklist Status Report which provided additional information regarding completion requirements for Pre-Inspector Audit Checks and VMI Audit Checks with varying requirements at one month, three months, six months, and one year after a VPM Sign-off.⁵⁸ The training tracker indicates that PG&E implemented tracking metrics through PG&E’s SLP in 2022 to ensure proper development of personnel within all VM programs.

Conclusion: PG&E provided information consistent with the completion of work identified in this statement.

Finding

PG&E did not provide information consistent with the completion of all work identified in Initiative 7.3.5.2: Detailed Inspections of Vegetation Around Distribution Electric Lines and Equipment. PG&E must supply a corrective action response addressing the findings identified in statements 7 and 8 above.

A.3 Initiative 7.3.5.3: Detailed Inspections of Vegetation Around Transmission Electric Lines and Equipment

The purpose of this initiative is to ensure “Careful visual inspections and maintenance of vegetation around the transmission right-of-way, where individual trees are carefully examined, visually, and the condition of each rated and recorded. Describe the frequency of inspection and maintenance programs.”⁵⁹

⁵⁷ [PG&E’s 2022 WMP Update](#), p. 728

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

⁵⁸ Response to DR-223, question 14; attachment “DRU13344_Q14_Atch01_TP 117 - OJT Checklist Status Report20240409_Redacted.xlsx.”

⁵⁹ [Update Guidelines](#), attachment 2, p. 92.

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=51912&shareable=true>, accessed June 10, 2024).

Statements, Supporting Information, and Analysis

Statement 14

Statement: “The Routine NERC Program includes LiDAR inspection, visual verification of findings, and mitigation of vegetation encroachments as well as other vegetation conditions on approximately 6,800 miles of NERC Critical lines. 100 percent inspection and work plan completion are required by NERC Standard FAC-003-4. Work is prioritized based on aerial LiDAR detection.”⁶⁰

Supporting Information and Analysis: PG&E provided an Excel file containing LiDAR inspection data on NERC lines for 2022. The file reports the date PG&E’s vendor delivered the processed aerial LiDAR data to PG&E (Delivery Date), the name of NERC lines (“PMD Name”), and Length of LiDAR flown in miles (“Total Miles”).⁶¹ PG&E stated it does not use prioritization for inspecting lines, but rather prioritizes NERC lines and lines within HFTD. Because an annual inspection is required for the entire service territory, all lines are considered high priority. Further, PG&E stated that project year 2022 is defined beginning on 11/15/2021 and ended on 11/14/2022 for field inspections with LiDAR flown and processed prior to the start date.⁶² Based on the “Delivery Dates” reported in the file, the project year 2022 LiDAR inspections occurred between January and March and covered 371 circuits and a total of 6,688.79 miles, or 98% of PG&E’s target mileage.

With respect to planned work based on LiDAR inspection detections, PG&E also provided a summary of codes and definitions used to prioritize work. Detection codes “VC1U_AF” and “VC1U_MO” are categorized as urgent.⁶³ PG&E also provided two Excel files listing tree detection data results, one for its Northern service territories and one for its Southern service territories.⁶⁴ PG&E explained that, rather than categorizing by line type (NERC/Non-NERC), PG&E tracks LiDAR detections by geographical region and divides them into North and South. The files confirm that all LiDAR detection data was collected via aerial LiDAR flights flown by PG&E’s vendor between June 2021 and November 2021.

With respect to visual verifications, PG&E provided an Excel file containing visual verification and mitigation work data on NERC lines for 2022. The schedule reported the date of inspection, location of inspection, and comments on the visual verification findings.⁶⁵ Based

⁶⁰ [PG&E’s 2022 WMP Update](#), page 731

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

⁶¹ Response to DR-223, question 16; attachment “DRU13344_Q16_Atch01_VM22_NERC LiDAR Data.xlsx.”

⁶² Response to DR-223, question 74; attachment “DRU13344_2022 SVM 7.3.5.8_DR_OEIS_D001.pdf.”

⁶³ Response to DR-223, question 16; attachment “DRU13344_Q16_Atch02_LiDAR Detection Codes.pdf”

⁶⁴ Response to DR-223, question 16; attachments “DRU13344_Q16_Atch03_VM2022_TreeDetections_North.csv,” and “DRU13344_Q16_Atch04_VM2022_TreeDetections_South.csv.”

⁶⁵ Response to DR-223, question 18; attachment “DRU13344_Q18_Atch01_NERC Inspection Records_Prj Year 2022.xlsx.”

on the inspection dates reported in PG&E’s dataset, the 2022 visual verification inspections on NERC lines occurred from January through November 2022 and covered 134 circuits. PG&E also provided a final Vegetation Management Project Status Summary report of its NERC lines, which reported a total of 6,779 miles of inspections completed, or 99.7% of PG&E’s target mileage.⁶⁶

Lastly, PG&E provided five reports for mitigation work completed on NERC lines in 2022. The reports included details on the circuit, date of issuance, follow-up and resolution, reason for closure, and notes supporting the NERC mitigation conducted.⁶⁷

Conclusion: PG&E provided evidence reflecting completion of the vast majority of the identified miles, and the approved 2022 WMP Update target was approximately 6,800 miles; therefore, Energy Safety finds PG&E provided information consistent with the completion of work identified in this statement.

Statement 15

Statement: “The [Routine Non-NERC] Program includes LiDAR inspection, visual verification of findings, and mitigation of vegetation encroachments as well as other vegetation conditions on approximately 11,400 miles of transmission lines not designated as critical by NERC. Work is prioritized based on aerial LiDAR detection. This program recurs annually.”⁶⁸

Supporting Information and Analysis: PG&E provided an Excel file containing LiDAR inspection data on non-NERC lines for 2022. The file reports the date PG&E’s vendor delivered the processed aerial LiDAR data to PG&E (Delivery Date), the name of the non-NERC lines (“PMD Name”), and Length of LiDAR flown in miles (“Total Miles”).⁶⁹ PG&E stated it does not use prioritization for inspecting lines, but rather prioritizes NERC lines and lines within HFTD. Because an annual inspection is required for the entire service territory, all lines are considered high priority. PG&E stated that project year 2022 is defined beginning on 11/15/2021 and ended on 11/14/2022 for field inspections with LiDAR flown and processed prior to the start date.”⁷⁰ Based on the “Delivery Dates” reported in the schedule, the project year 2022 LiDAR inspections for non-NERC lines occurred between November 2021, and January 2022, and covered 1,123 circuits and a total of 11,115.43 miles, or 98% of PG&E’s target mileage.

⁶⁶ Response to DR-223, question 19; attachment “DRU13344_Q19_Atch01_PI NERC Line Miles Complete_20240410_Redacted.pdf.”

⁶⁷ Response to DR-223, question 17; attachment “DRU13344_Q17_Atch01_NERC Mitigation Examples_20240408_Redacted.pdf.”

⁶⁸ PG&E’s 2022 WMP Update, p. 731

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

⁶⁹ Response to DR-223, question 23; attachment “DRU13344_Q23_Atch01_VM22_Non-NERC LiDAR Data.xlsx.”

⁷⁰ Response to DR-223, question 74; attachment “DRU13344_2022 SVM 7.3.5.8_DR_OEIS_D001.pdf.”

Planned work based on LiDAR inspection detections for non-NERC lines follows the same fact pattern as described under statement 14. As previously stated, rather than categorizing by line type (NERC/Non-NERC), PG&E tracks LiDAR detections by geographical region and divides them into North and South. PG&E provided two Excel files listing all LiDAR detection data used in 2022.⁷¹ The provided schedules document that all LiDAR detection data was collected from aerial LiDAR flights flown by PG&E's vendor between June and November 2021.

With respect to visual verifications, PG&E provided an Excel file containing inspection mitigation work data on Routine Non-NERC lines for 2022.⁷² The file reported the date of inspection, location of inspection, and comments on the visual verification findings.⁷³ Based on the inspection dates reported in PG&E's dataset, the 2022 visual verification inspections on non-NERC lines occurred between January and November 2022 and covered 296 circuits. PG&E also provided a final Vegetation Management Project Status Summary report for 2022 for its non-NERC lines⁷⁴ which reported a total of 11,429 miles of inspections completed, or 100.3% of PG&E's target mileage.

Lastly, PG&E provided five reports for mitigation work on NERC lines. The reports included details on the circuit, date of issuance, follow-up and resolution, reason for closure, along detailed notes supporting the non-NERC mitigation conducted.⁷⁵

Conclusion: PG&E provided evidence reflecting completion of the vast majority of the identified miles, and the approved 2022 WMP Update target was approximately 11,400 miles; therefore, Energy Safety finds PG&E provided information consistent with the completion of work identified in this statement.

Statement 16

Statement: "The [integrated vegetation management] IVM Program is an ongoing maintenance program designed to maintain cleared rights-of-way in a sustainable and compatible condition by eliminating tall-growing and fire-prone vegetation and promoting low-growing, compatible vegetation. Prioritization is based on aging of work cycles and evaluation of vegetation re-growth. After initial work is performed, the rights-of-ways are

⁷¹ Response to DR-223, question 23; attachments "DRU13344_Q23_Atch03_VM2022_TreeDetections_North.csv," "DRU13344_Q23_Atch04_VM2022_TreeDetections_South.csv."

⁷² Response to DR 223, question 20, PG&E stated that there is no "Non-Routine NERC program," and this was a typo in the WMP definition. The existing program is "Routine Non-NERC."

⁷³ Response to DR-223, question 20; attachment "DRU13344_Q20_Atch01_Non-NERC Inspection Records_Prj Year 2022.xlsx."

⁷⁴ Response to DR-223, question 21; attachment "DRU13344_Q21_Atch01_PI Non-NERC Line Miles Complete_20240410_Redacted.pdf"

⁷⁵ Response to DR-223, question 24; attachment "DRU13344_Q24_Atch01_Non-NERC Mitigation Examples_20240408_Redacted.pdf."

reassessed every two to five years.”⁷⁶ PG&E continues, “PG&E currently plans to perform approximately 9,000 acres [related to the IVM program].”⁷⁷

Supporting Information and Analysis: PG&E provided a project status summary report for PG&E’s 2022 Transmission IVM program.⁷⁸ That report stated that PG&E trimmed 4,979 trees during 2022. However, PG&E stated the unit measurement for ‘trees trimmed’ shown in the report is capturing acres for transmission IVM work; “Although the units shown on these reports indicate ‘trees trimmed’, the reporting system is actually capturing acres for transmission IVM work. Please note that Transmission IVM had a plan of 9,717 acres for 2022 but only completed 4,979 acres.”⁷⁹

PG&E did not explain why the number it initially counted as trees it now counts as acres. Even counting the number 4,979 as acres, PG&E completed only 55% of the target, which was 9,000 acres. PG&E did not explain why it completed only 55% of its target.

PG&E provided an Excel file which reported IVM Planning LiDAR data for 2022. The file included information which described PG&E’s multi-year planning methodology for prioritization. The Excel file indicates that LiDAR data was prioritized based on several factors, including an “IVM Score” which is assigned to each project. The Excel file states that the IVM score is a numerical value where the higher the score, the higher the density and/or the taller the vegetation. The Excel file also states that based on IVM score, Red/Amber/Green (RAG) designation, total circuit line miles, right-of-way (ROW) access considerations, HFTD tier footprint and span mileage a general plan is established for NERC and non-NERC routine IVM projects.⁸⁰

Also, regarding prioritization of work, PG&E did not provide documentation from 2022 showing that aging work cycles and re-growth rates were incorporated into the overall prioritization for 2022. PG&E stated that “the Transmission Integrated Vegetation Management (TIVM) Principal Program Manager and Vegetation Asset Strategy & Analytics (VASA) work together to determine prioritization based on aging work cycles and re-growth rates.”⁸¹ However, PG&E could not provide procedural documentation stating that the TIVM Principal Program manager and VASA work together to determine prioritization based on aging work cycles and re-growth rates.

⁷⁶ [PG&E’s 2022 WMP Update](#), p. 731

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

⁷⁷ [PG&E’s 2022 WMP Update](#), p. 733

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

⁷⁸ Response to DR-223, question 26; attachment “DRU13344_Q26_Atch01_2022 Transmission IVM PSS Report_Redacted.pdf.”

⁷⁹ Response to DR-223, question 26; attachment “DRU13344_2022 SVM 7.3.5.3_DR_OEIS_D001.pdf.”

⁸⁰ Response to DR-223, question 22; attachment “DRU13344_Q22_Atch01_Transmission IVM 2022 Plan.xlsx.”

⁸¹ Response to DR-235, question 14; attachment “DRU13713_Energy Safety-DR-235_Audit_DR_OEIS_D002_Redacted.pdf.”

Conclusion: PG&E did not provide information consistent with the completion of work identified in this statement.

Statement 17

Statement: “The Routine NERC Program allows PG&E to identify and perform mitigation of hazards to transmission structures.”⁸²

Supporting Information and Analysis: PG&E provided four mitigation reports for work performed near transmission structures from the NERC program in 2022.⁸³ The reports included information about the circuit, date the work order was created and closed, follow-up and resolution, reason for closure, and detailed notes supporting the mitigation work conducted.⁸⁴ The reports indicate that PG&E used its NERC program data to identify and complete mitigation of hazards to transmission structures in 2022.

Conclusion: PG&E provided information consistent with the completion of work identified in this statement.

Statement 18

Statement: “LiDAR data collected during Routine NERC patrols allows PG&E to reassess the LiDAR Risk Score Model annually.”⁸⁵

Supporting Information and Analysis: PG&E provided a summary from its 2022 Predictive Risk Report prepared for PG&E by PG&E’s vendor, along with an excerpt from the Population and Failure Datasets utilized by PG&E’s vendor in its 2022 Tree Risk Score Update.⁸⁶ Per the summary, “Risk score quantification was calculated using a weighted contribution from four LiDAR derived metrics that were previously identified as high correlates from the 2021 back tracing effort conducted in partnership between PG&E, PG&E’s vendor, and PG&E’s independent 3rd party reviewer.”⁸⁷ The report goes on to note that previously collected LiDAR data from 2021 was utilized to identify the precise positioning of trees that had failed and impacted wires between 2014 and 2020—this information was then leveraged to develop a frequency ratio model identifying the relative risk for every tree in the 2022 datasets of failure

⁸² [PG&E’s 2022 WMP Update](#), p. 732

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

⁸³ Response to DR-223, question 27; attachment “DRU13344_Q27_Atch01_NERC HN Mitigation Examples_20240408_Redacted.pdf.”

⁸⁴ Response to DR-223, question 27; attachment “DRU13344_Q27_Atch01_NERC HN Mitigation Examples_20240408_Redacted.pdf.”

⁸⁵ [PG&E’s 2022 WMP Update](#), p. 732

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

⁸⁶ Response to DR-223, question 28; attachment “DRU13344_Q28_Atch02_PG&E Predictive Risk Report Write Up 20221006.pdf.”

⁸⁷ Response to DR-223, question 28; attachment “DRU13344_Q28_Atch02_PG&E Predictive Risk Report Write Up 20221006.pdf.”

and wire impact. The model looks at four metrics analyzed in PG&E’s LiDAR data: Fall Distance Percent, Unobstructed Fall Paths, Tree Exposure, and Slope to Wire.⁸⁸ The reports indicate that PG&E reassessed its LiDAR Risk Score Model in 2022.

Conclusion: PG&E provided information consistent with the completion of work identified in this statement.

Statement 19

Statement: “The Routine Non-NERC Program allows PG&E to identify and perform mitigation of hazards to transmission structures.”⁸⁹

Supporting Information and Analysis: PG&E provided five example mitigation reports for work performed near transmission structures from the non-NERC program in 2022. The reports included details on the circuit, date the work order was created and closed, follow-up and resolution, reason for closure, and detailed notes supporting the mitigation work conducted.⁹⁰ The reports indicate that PG&E used its non-NERC program data to identify and complete mitigation of hazards to transmission structures in 2022.

Conclusion: PG&E provided information consistent with the completion of work identified in this statement.

Finding

PG&E did not provide information consistent with the completion of all work identified in Initiative 7.3.5.3: Detailed Inspections of Vegetation Around Transmission Electric Lines and Equipment. PG&E must supply a corrective action response addressing the findings identified in statement 16 above.

A.4 Initiative 7.3.5.4: Emergency Response Vegetation Management Due to Red Flag Warning or Other Urgent Conditions

The purpose of this initiative is the “Plan and execution of vegetation management activities, such as trimming or removal, executed based upon and in advance of forecast weather

⁸⁸ Response to DR-223, question 28; attachment “DRU13344_Q28_Atch02_PG&E Predictive Risk Report Write Up 20221006.pdf.”

⁸⁹ [PG&E’s 2022 WMP Update](#), p. 732

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

⁹⁰ Response to DR-223, question 29; attachment “DRU13344_Q29_Atch01_Non-NERC HN Mitigation Examples_20240408_Redacted.pdf”

conditions that indicate high fire threat in terms of ignition probability and wildfire consequence.”⁹¹

Statements, Supporting Information, and Analysis

Statement 20

Statement: “All trees identified for work by pre-inspectors are evaluated for the priority of the required tree work. If vegetation is determined to be an immediate risk to PG&E facilities, described as a Priority 1 Condition in the VM Priority Tag Procedure (TD-7102P-17), the condition will be mitigated within 24 hours of identification as long as conditions are safe for the tree crew to proceed with work. Vegetation identified as pending Priority 2 work within the Red Flag Warning (RFW) area will be reviewed and re-prioritized if determined necessary by the local PG&E VM Point of Contact.”⁹²

Supporting Information and Analysis: PG&E stated that it remediated 5,336 Priority 1 (P1) trees and 50,424 Priority 2 (P2) trees in 2022. ⁹³ PG&E’s Procedure TD-7102P-17 states that P1 tags must be mitigated within 24 hours of identification. If unable to remediate a P1 tag within 24 hours of identification, the vegetation program manager must notify the senior vegetation program manager and regional manager by email of the reason for the delay and the estimated time of completion. P2 tags must be mitigated within 20 business days, unless constrained due to factors such as environmental permitting or work access issue. ⁹⁴

PG&E provided an Excel file containing data on P1 and P2 trees within RFW and non-RFW areas inspected and remediated in 2022. The file contained circuit name, tree location data (latitude and longitude), tree species, priority designation, inspection date and time, RFW identification and remediation date and time. ⁹⁵

The file lists 5,141 P1 trees that were inspected in 2022 (including RFW and non-RFW areas). Of these trees:

- 5,047 (98%) were reported as remediated within 1 day of the date of inspection.
- 51 were reported as remediated between 2-6 days after the date of inspection.
- One was reported as remediated 136 days after the date of inspection.
- 40 were reported as remediated 1-30 days *before* the date of inspection.

⁹¹ [Update Guidelines](#), attachment 2, p. 92.

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=51912&shareable=true>, accessed June 10, 2024).

⁹² [PG&E’s 2022 WMP Update](#), p. 734

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

⁹³ Response to DR-223, question 31; attachment “DRU13344_2022 SVM 7.3.5.4_DR_OEIS_D001.pdf,” p.1.

⁹⁴ Response to DR-223, question 34; attachment “DRU13344_Q34_Atch01_TD-7102P-17_VM Priority Tag Procedure_Rev 1_Redacted.pdf.”

⁹⁵ Response to DR-251, question 4; attachment “DRU13344_Q32_Atch01_RFW Priority 2 Work_Updated.xlsx.”

- Two reported a “NULL” remediation date.

Additionally, the file lists 48,509 P2 trees that were inspected in 2022 (including RFW and non-RFW areas). Of these trees:

- 43,643 were reported as remediated 0-20 business days after the date of inspection.
- 4,696 were reported as remediated 21-532 business days after the date of inspection.
- 62 were reported as remediated between 1-345 days *before* the date of inspection.
- 108 had a “Null” remediation date.

In reviewing the various constraints listed for P2 trees that were not remediated within 20 business days, PG&E listed “Refusal,” “contact” and “Quarantine” as some of the common reasons for delayed work.

PG&E stated that “NULL” values can be due to numerous factors, including not entering the work complete date, or that a tree may have been worked as part of another request.

Of the 48,509 P2 trees in the provided data, 10,279 were designated as being in RFW areas. PG&E was unable to provide information on P2 reprioritization efforts or the vegetation management point of contact responsible for re-prioritization of P2 trees. PG&E stated that it does not “track the reprioritization in [PG&E’s] PTT database because, when the P2 is reprioritized in the field, the record is deleted and a new P1 record is created. The reason for this is that editing a P2 record to P1 would result in the edited record retaining the original P2 creation date, which would then lead to the completion timeline of the P1 tag being incorrectly recorded.”⁹⁶

The data indicates that PG&E failed to remediate 54 P1 trees, and 4,804 P2 trees within the timeframe specified in procedure TD-7102P-17. PG&E provided copies of email correspondence between a tree crew general foreman and a senior vegetation program manager from 2022.⁹⁷ The email correspondence indicates that the tree crew general foreman notified vegetation program managers of delayed P1 tree remediation work and established an estimated time of completion. The email correspondence documents that PG&E followed procedure TD-7102P-17 for 30 of the 54 P1 trees with delayed mitigation dates in 2022. PG&E did not provide documentation for the 24 P1 trees that were not addressed per procedure TD-7102P-17. Additionally, PG&E’s documentation of P1 and P2 work indicates that 102 trees had work dates prior to the tree’s inspection date and PG&E did not provide documentation that P1 and P2 trees with a “NULL” remediation date were remediated in 2022.

⁹⁶ Response to DR-223, question 32; attachment “DRU13344_2022 SVM 7.3.5.4_DR_OEIS_D001.pdf.”

⁹⁷ Response to DR-251, question 6; attachment “RE_09-13-22 North Valley Priority One Locations - Approved Mitigation Plan_Redacted.pdf.”

PG&E must include the following documentation in its corrective action response: 1) P1 and P2 trees with “Null” remediation dates were remediated within the compliance period, and 2) procedures to ensure remediation dates are recorded after inspection dates.

Conclusion: PG&E did not provide information consistent with the completion of work identified in this statement.

Finding

PG&E did not provide information consistent with the completion of all work identified in Initiative 7.3.5.4: Emergency Response Vegetation Management Due to Red Flag Warning or Other Urgent Conditions. PG&E must supply a corrective action response addressing the findings identified in statement 20 above.

A.5 Initiative 7.3.5.5: Fuel Management (including all wood management) and Reduction of “slash” from Vegetation Management Activities

The purpose of this initiative is the “Plan and execution of fuel management activities in proximity to potential sources of ignition. This includes pole clearing per PRC 4292 and reduction or adjustments of live fuel (based on species or otherwise) and of dead fuel, including all downed wood and “slash” generated from vegetation management activities.”⁹⁸

Statements, Supporting Information, and Analysis

Statement 21

Statement: “Customers are made aware of activities and initial treatments where fuel risks can also be reduced through their separate actions and maintenance of defensible space on their properties.”⁹⁹

Supporting Information and Analysis: PG&E stated that its UDS program is considered a customer opt-in program, such that customers must agree to participate in it for PG&E to perform the Utility Defensible Space (UDS) work on the customer’s property. PG&E provided an Excel file listing 14 examples of customers that opted to participate in the UDS program in

⁹⁸ [Update Guidelines](#), attachment 2, p. 92.

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=51912&shareable=true>, accessed June 10, 2024).

⁹⁹ [PG&E’s 2022 WMP Update](#), p. 736

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

2022.¹⁰⁰ The file contained customer notes that indicated their preferred methods of communication, dates in which customers were notified of UDS work on their property, and the clearing method utilized on the property. All examples provided were classified as HFTD Tier 2. The file indicates that in 2022, PG&E notified its customers of the activities described in statement 21 above.

Conclusion: PG&E provided information consistent with the completion of work identified in this statement.

Statement 22

Statement: “[In 2022], PG&E plans to complete work on opted-in parcels related to the 2020 wildfires and expects to begin WM work on opted-in parcels related to 2021 wildfires.”¹⁰¹

Supporting Information and Analysis: PG&E stated it completed wood management on 502 opt-in parcels related to 2020 wildfires¹⁰² and 87 opt-in parcels related to 2021 wildfires.¹⁰³

PG&E also provided Excel files documenting the completed work, reporting incidents and work completion dates on opted-in parcels related to the 2020 and 2021 wildfires.¹⁰⁴

Conclusion: PG&E provided information consistent with the completion of work identified in this statement.

Finding

PG&E provided information consistent with the completion of work identified in Initiative 7.3.5.5: Fuel Management and Reduction of “slash” from Vegetation Management Activities.

A.6 Initiative 7.3.5.6: Improvement of Inspections

The purpose of this initiative is “Identifying and addressing deficiencies in inspection protocols and implementation by improving training and the evaluation of inspectors.”¹⁰⁵

Statements, Supporting Information, and Analysis

¹⁰⁰ Response to DR-223, question 36; attachment “DRU13344.001_Q36_Atch01 2022_Tranche_1_22021112 HFTD WC_Redacted.xlsx.”

¹⁰¹ [PG&E's 2022 WMP Update](#), p. 738

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

¹⁰² Response to DR-223, question 38; attachment “DRU13344_2022 SVM 7.3.5.5_DR_OEIS_D001.pdf.”

¹⁰³ Response to DR-223, question 40; attachment “DRU13344_2022 SVM 7.3.5.5_DR_OEIS_D001.pdf.”

¹⁰⁴ Response to DR-223, question 39; attachment “DRU13344_Q39_Atch01_WFWM_Complete_2022_20240404.xlsx.”

¹⁰⁵ [Update Guidelines](#), attachment 2, p. 93.

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=51912&shareable=true>, accessed June 10, 2024).

Statement 23

Statement: “Identifying and mitigating hazards related to vegetation is an effort that requires a series of different protocols to properly manage. Training courses and inspection protocols must be continuously monitored and revised to ensure proper management of potential and unforeseen risk in the field while conducting work.”¹⁰⁶

Supporting Information and Analysis: PG&E listed the training courses created or revised during 2022 along with a 2022 guidance plan for the updated VM procedure.¹⁰⁷ PG&E included a copy of a meeting scheduled in March 2022 to review the Distribution Routine Patrol Procedure (DRPP)¹⁰⁸ as well as supplemental emails about the DRPP, such as training course revisions following the DRPP revision in 2022.¹⁰⁹

PG&E also provided emails showing an updated version of the Best Management Practices for Vegetation Management, which was published on January 6, 2022, and went into effect on March 7, 2022.¹¹⁰

Lastly, PG&E provided various communications and meeting invites demonstrating vegetation management protocols and courses being monitored and revised in 2022.¹¹¹

Conclusion: PG&E provided information consistent with the completion of work identified in this statement.

Statement 24

Statement: “The evaluation of the work performed by PG&E personnel and contractors is critical to the effectiveness of our VM program. PG&E has implemented Work Verification (WV), Quality Control (QC), and Senior Vegetation Management Inspector (SVMI) programs to monitor and evaluate our VM projects.”¹¹²

¹⁰⁶ [PG&E's 2022 WMP Update](#), p. 739

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

¹⁰⁷ Response to DR-223, question 42; attachments “DRU13344_Q42_Atch01_Vegetation Management 2022 Course List and Details 041624.pdf” and “DRU13344_Q42_Atch02_2023 Annual Plan for Docs_Redacted.pdf.”

¹⁰⁸ Response to DR-223, question 42; attachment “DRU13344_Q42_Atch03_RECAPH Next Steps before 316 at 2pm TD-7102P-01 DRPP team meeting_Redacted.pdf.”

¹⁰⁹ Response to DR-223, question 42; attachments “DRU13344_Q42_Atch04_FW Routine WR Risk Review_Redacted.pdf,” “DRU13344_Q42_Atch05_RE DRPP revision - will it include definition of facilities and DeadDying FPTs_Redacted.pdf.”

¹¹⁰ Response to DR-223, question 42; attachment “DRU13344_Q42_Atch06_RE Updated Documents - TD-7102P-01-JA01 Best Management Practices (BMP) updated in the TIL_Redacted.pdf.”

¹¹¹ Response to DR-223, question 42; attachments “DRU13344_Q42_Atch01_Vegetation Management 2022 Course List and Details 041624.pdf,” “DRU13344_Q42_Atch02_2023 Annual Plan for Docs_Redacted.pdf,” “DRU13344_Q42_Atch03_RECAPH Next Steps before 316 at 2pm TD-7102P-01 DRPP team meeting_Redacted.pdf,” “DRU13344_Q42_Atch04_FW Routine WR Risk Review_Redacted.pdf.”

¹¹² [PG&E's 2022 WMP Update](#), p. 739.

Supporting Information and Analysis: PG&E provided the final draft of its Vegetation Management (VM) Field Quality Control (FQC) process quality manual, which described the Quality Control (QC) processes applicable throughout the 2022 calendar year.¹¹³

To demonstrate the effectiveness of Field Quality Control (FQC) in monitoring and evaluating VM Projects, PG&E provided examples of summarized results from FQC programs field activities, in the form of weekly email distributions to stakeholders, Excel analyses, and PowerBI exports. These files showed evaluation of VM projects, demonstrating the breadth in scope and summarization of key findings.¹¹⁴ PG&E also provided example raw data files collected during field activities, showing the effectiveness in monitoring VM projects through the volume of samples/observations performed.¹¹⁵

To demonstrate the effectiveness of WV, PG&E provided a screenshot of its PowerBI dashboard summarizing metrics from its First Survey Pass, which included the Pass Rate percentage for WV completed in 2022, disaggregated by region, circuit, and other attributes.¹¹⁶

To demonstrate the effectiveness of SVMl group, PG&E provided a compilation of the SVMl survey observation data for 2022.¹¹⁷ PG&E stated that the SVMl group shared their insights with the VM execution team through meetings, and analyzed data collected to discuss trends and coach contractors regarding safety and regulatory compliance improvement. PG&E provided calendar invites for VM Execution and SVMl Weekly Trend Update meetings, which included examples of topics discussed in 2022.¹¹⁸

¹¹³ Response to DR-223, question 43; attachment “DRU13344_Q43_Atch01_VMFQC Detailed Description_FINAL DRAFT_QualityManual_9_13_2022_Redacted.pdf”

¹¹⁴ Response to DR-223, question 43; attachment “DRU13344_Q43_Atch06_5-VMI_Onboarding_Guide_AppendixK.pdf”

¹¹⁵ Response to DR-223, question 44; attachments “DRU13344_Q44_Atch09_VMQC__VC_Tech_Redacted.xlsx,” “DRU13344_Q44_Atch10_VMQC Mid-Cycle 2_Redacted.xlsx,” “DRU13344_Q44_Atch11_VMQC Mid-Cycle 1_Redacted.xlsx,” “DRU13344_Q44_Atch12_VMQC EVM VMI Observation Form_Redacted .xlsx,” “DRU13344_Q44_Atch13_VMQC Defined Scope VMI Observation Form_Redacted.xlsx,” “DRU13344_Q44_Atch14_VM Quality Control - VC Post Work Inspection_Redacted .xlsx,” “DRU13344_Q44_Atch15_VC Find It, Fix it_Redacted.xlsx,” and “DRU13344_Q44_Atch16_EVM Work Verifier Observation Form_Redacted .xlsx”

¹¹⁶ Response to DR-223, question 44; attachment “DRU13344_Q44_Atch17_7.3.5.6 DRU13344_Q44.pdf”

¹¹⁷ Response to DR-223, question 44; attachment “DRU13344_Q44_Atch18_SVMl Survey 123 Dashboard 12.31.2022.pdf”

¹¹⁸ Response to DR-223, question 44; attachments “DRU13344_Q44_Atch23_FW_ WOR - VM Execution ELT_Redacted.pdf,” “DRU13344_Q44_Atch19_SVMl Weekly Trend Updates 8-2-22.pdf,” “DRU13344_Q44_Atch24_FW_ WOR - VM Execution ELT_Redacted.pdf,” “DRU13344_Q44_Atch20_SVMl Weekly Trend Updates 9-13-22.pdf,” “DRU13344_Q44_Atch25_FW_ WOR - VM Execution ELT_Redacted.pdf,” “DRU13344_Q44_Atch21_SVMl Weekly Trend Updates 10-25-22.pdf,” “DRU13344_Q44_Atch26_FW_ WOR - VM Execution ELT_Redacted.pdf,” “DRU13344_Q44_Atch22_SVMl Weekly Trend Updates WE 11-26-22.pdf.”

Conclusion: PG&E provided information consistent with the completion of work identified in this statement.

Statement 25

Statement: “WV, QC, and SVMI personnel must complete required training courses to ensure that inspection programs are being performed to meet all project related protocols, policies, and procedures... WV are required to [complete] trainings in the Structured Learning Path that cover a series of topics such as Fire Mitigation, Safety Procedures, Reporting Procedures, EVM and Defined Scope programs, Transmission programs, Priority Tag Procedures, and Environmental... All QC Program Managers must successfully complete the introduction to Pre-Inspection courses in the SLP. In addition to the introduction to Pre-Inspection courses, the QC Program Managers are required to complete EVM and Defined Scope courses on the SLP. QC Program Managers are also expected to complete a group of Web Based Trainings (WBT) focused on Environmental topics, as well as fulfill supplemental requirements, such as Rural Driving Safety, Fire Precaution, and SafetyNet Training. Outside of the tracked SLP and MyLearning training courses, QC Program Managers must complete the SVMI SLP trainings, which consist of approximately 40 courses focused on the process, protocols, and procedures for the SVMI role.”¹¹⁹

Supporting Information and Analysis: PG&E provided a Vegetation Management (WV) Training Path Summary and stated WV implemented a Structured Learning Path (SLP). PG&E required newly hired Work Verifiers (WVs) to complete the web-based training program, which shows WVs how to access Vegetation Management databases and PG&E facilities.¹²⁰ PG&E also conducted mentor check-ins to verify that the WVs understood and completed the training; WVs are required to complete the WV SLP program within one year of their employee hire date. PG&E also provided a training report summarizing all WVs who had completed one year of service in the WV role by the end of calendar year 2022, along with the courses taken.¹²¹ PG&E stated that of 22 total WV personnel who completed courses in 2022, 13 were internal PG&E employees and 9 were contractor employees.

PG&E also requires Field Quality Control Project Managers (FQCPMs) to complete training within 12 months of their PG&E onboarding date. PG&E provided an Excel file listing attendee IDs, course codes, course names and completion dates.¹²² In 2022, 18 QC program managers completed the introduction to pre-inspection courses.

¹¹⁹ [PG&E's 2022 WMP Update](#), pp. 739-740

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

¹²⁰ Response to DR-223, question 45; attachment “DRU13344_Q45_Atch01_VM_WV Training Path Summary_20220315.pdf.”

¹²¹ Response to DR-223, question 45; attachment “DRU13344_Q45_Atch02_All 2022 VM Completed Training Report - WV_Redacted.xlsx.”

¹²² Response to DR-223, question 49; attachments “DRU13344_Q49_Atch01_2022 FQCPM_PI_SLP_consolidated_Redacted.xlsx,” “DRU13344_Q49_Atch02_QCPM SLP 2022.xlsx.”

Conclusion: PG&E provided information consistent with the completion of work identified in this statement.

Statement 26

Statement: “All SVMI will have to successfully complete the introduction to Pre-Inspection courses in the SLP. While progressing through the PI track in the SLP, the SVMI will have scheduled check-ins with a supervisor to ensure they have fully absorbed the material that is being taught. The SVMI is also expected to complete trainings around record and information management, and Security and Privacy Awareness. There will be a series of four audits at the 1-month, 3-month, 6-month, and 1 year mark to evaluate the work that is being completed by the SVMI once they finish all their courses.”¹²³ PG&E goes on to state that “SVMI must also complete the SVMI SLP trainings, which consist of approximately 40 courses focused on the process, protocols, and procedures... The supervisor has a hard copy check list that they utilize to keep track of the progress being made by the SVMI as they complete the SVMI courses.”¹²⁴

Supporting Information and Analysis: PG&E stated that “31 SVMI hired in 2022 completed the introduction to Pre-Inspection courses in SLP.”¹²⁵ However, PG&E’s SLP vegetation management training report from 2022 documents that only 19 of the 31 SVMI completed the “Introduction to Pre-Inspection Basics” course (course ID VEGM-0101WBT).¹²⁶

PG&E could not locate records of completion for 6 of the 31 SVMIs hired in 2022. PG&E stated that “In 2022, the Pre-Inspection SLP trainings were not profiled specifically to the SVMI group. This means if the employee was not instructed by a SVMI supervisor to book and complete the training, they would not have known it was a requirement. PG&E understands that this is an oversight on [PG&E’s] part.”¹²⁷

PG&E also provided a copy of the Vegetation Management VMI SLP, noting that it serves as the checklist utilized by the supervisors to keep track of the progress made by SVMI as it pertains to other courses that focus on process, protocols, procedures, etc.¹²⁸ The SLP outlines 41 SLP topics along with descriptions and learning objectives, and includes seven built-in supervisor check-in points. Additionally, as indicated in the SLP VM Completed Training report observed above, SVMI personnel completed between 25 to 85 different

¹²³ [PG&E’s 2022 WMP Update](#), p. 740

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

¹²⁴ [PG&E’s 2022 WMP Update](#), p. 741

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

¹²⁵ Response to DR-223, question 52; attachment “DRU13344_2022 SVM 7.3.5.6_DR_OEIS_D001.pdf,” p. 7.

¹²⁶ Response to DR-223, question 53; attachment “DRU13344_Q53_Atch01 2022 SLP VM Completed Training Report_Redacted.xlsx.”

¹²⁷ Response to DR-235, question 16: attachment “DRU13713_Energy Safety-DR-235_Audit_DR_OEIS_D002_Redacted.pdf,” p. 4.

¹²⁸ Response to DR-223, question 57; attachment “DRU13344_Q57_Atch01_A-SLP_VMI_20201000.pdf.”

courses throughout the course of the 2022 period. PG&E also provided a copy of its Vegetation Management VMI SLP discussion guide utilized by VMI Supervisors to guide discussions across several VM topics with VMI staff.¹²⁹ As part of new hire orientation/onboarding, personnel are also notified of these required check-ins with supervisors.¹³⁰

With respect to trainings on information management and security, PG&E stated that these topics are covered as part of PG&E's annual required training, Records and Information Management and Security and Privacy Awareness, for all PG&E personnel with network access. PG&E provided an Excel file showing compliance records for all 31 SVM personnel with completion dates in 2022.¹³¹

With respect to the four post training audits, PG&E stated that "Vegetation Management Inspectors are required to complete a specific Structured Learning Path (SLP) to ensure competency of the required procedures. While these paths include regular blocks of Supervisor check-ins to reinforce the information and confirm understanding, this did not include four audits in 2022."¹³²

PG&E did not provide Pre-Inspection training to six Senior vegetation management inspectors and did not conduct four post-training audits.

Conclusion: PG&E did not provide information consistent with the completion of work identified in this statement.

Finding

PG&E did not provide information consistent with the completion of all work identified in Initiative 7.3.5.6: Improvement of Inspections. PG&E must supply a corrective action response addressing the findings identified in statement 26 above.

¹²⁹ Response to DR-223, question 54; attachment "DRU13344_Q54_Atch01_C-SLP_SupervisorCheckInAid_20201200.pdf."

¹³⁰ Response to DR-223, question 54; attachments "DRU13344_Q54_Atch02_Orientation Docs Part2 2022.pdf," "DRU13344_Q54_Atch03_Orientation Docs 2022.pdf."

¹³¹ Response to DR-223, question 55; attachment "DRU13344_Q55_Atch01_ISEC-9022WBT andCORP-9046 WBT Completions_Redacted.xlsx."

¹³² Response to DR-223, question 56; attachment "DRU13344_2022 SVM 7.3.5.6_DR_OEIS_D001.pdf," p. 8.

A.7 Initiative 7.3.5.7: LiDAR Inspections of Vegetation Around Distribution Electric Lines and Equipment

The purpose of this initiative is to perform “Inspections of right-of-way using remote sensing methods such as LiDAR, satellite imagery, and UAV.”¹³³

Statement 27

Statement: “LiDAR data is targeted toward distribution lines in Tier 2 and Tier 3 HFTD areas. Data will also be collected on selected projects in Routine VM based on road-access that will be determined through a map comparison.”¹³⁴

Supporting Information and Analysis: PG&E provided an Excel file documenting mobile ground-based LiDAR spans and their associated projects collected on distribution circuits in 2022. The file indicates that PG&E completed 4,024 miles of mobile LiDAR capture along electric distribution lines, including 2,764 miles in HFTD Tier 2 and 595 miles in HFTD Tier 3.¹³⁵

Conclusion: PG&E provided information consistent with the work identified in this statement.

Statement 28

Statement: “Complete at least 2,000 circuit miles of Mobile LiDAR capture on HFTD road access electric distribution lines, barring External Factors.”¹³⁶

Supporting Information and Analysis: PG&E provided an Excel file documenting mobile ground-based LiDAR spans and their associated projects collected on distribution circuits in 2022. The Excel file indicates that PG&E exceeded its target by completing a total of 3,358 circuit miles of mobile LiDAR capture along electric distribution lines in HFTD Tier 2 and Tier 3 areas.¹³⁷

Conclusion: PG&E provided information consistent with the work identified in this statement.

Finding

¹³³ [Update Guidelines](#), attachment 2, p. 93.

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=51912&shareable=true>, accessed June 10, 2024).

¹³⁴ [PG&E's 2022 WMP Update](#), p. 753

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

¹³⁵ Response to DR-223, questions; 70-72 attachment “DRU13344_Q70-72_Atch01_Lidar Span 2022.xlsx.”

¹³⁶ [PG&E's 2022 WMP Update](#), p. 754

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

¹³⁷ Response to DR-223, questions; 70-72 attachment “DRU13344_Q70-72_Atch01_Lidar Span 2022.xlsx.”

PG&E provided information consistent with the completion of work identified in Initiative 7.3.5.7: LiDAR Inspections of Vegetation Around Distribution Electric Lines and Equipment.

A.8 Initiative 7.3.5.8: LiDAR Inspections of Vegetation Around Transmission Electric Lines and Equipment

The purpose of this initiative is “to describe the electrical corporation’s methods for inspecting transmission rights-of-way using LiDAR.”¹³⁸

Statements, Supporting Information, and Analysis

Statement 29

Statement: “PG&E conducts a second, “mid-cycle” aerial LiDAR inspection in the HFTD areas of our system at the height of the vegetation growing season which coincides with the beginning of historically the most active part of the California fire season. This patrol allows PG&E to conduct a supplemental assessment of potential tree growth following seasonal rain through high fire threat areas to reduce the potential of ignitions.”¹³⁹ PG&E goes on to state that “PG&E expects to do approximately 6,229 miles of LiDAR Mid-Cycle patrols over the course of 2022.”¹⁴⁰

Supporting Information and Analysis: PG&E provided an Excel file listing inspections by “mid-cycle” aerial LiDAR and included the inspection dates, inspection circuit locations, and total miles inspected. The Excel file indicates that PG&E conducted “mid-cycle” inspections via aerial LiDAR along 6,996 miles in 2022, of which 5,832 miles of the inspections were in HFTD/HFRA areas.¹⁴¹ The Excel file also indicates that all inspections were completed within a 5-month timespan between June and October 2022.¹⁴²

¹³⁸ [Update Guidelines](#), attachment 2, p. 93.

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=51912&shareable=true>, accessed June 10, 2024).

¹³⁹ [PG&E’s 2022 WMP Update](#), p. 756

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

¹⁴⁰ [PG&E’s 2022 WMP Update](#), p. 759

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

¹⁴¹ Response to DR-235, question 17; attachment “DRU13713_Energy Safety-DR-235_Audit_DR_OEIS_D002_Redacted.pdf,” p. 4.

¹⁴² Response to DR-223, question 73; attachment “DRU13344_Q73_Atch01_PG&E+NV5_Midcycle2022_CircuitList.xlsx.”

PG&E also provided an Excel file documenting unlisted critical detections (UCD) discovered by “mid-cycle” aerial LiDAR inspections.¹⁴³ The file contained activities reported in July and August 2022, along with courses of action taken to address the UCDs.

Conclusion: PG&E provided information consistent with the work identified in this statement.

Statement 30

Statement: “The PG&E Transmission VM Program conducts LiDAR inspections on 100 percent of PG&E’s transmission system (lines carrying 60 kV and above) as an integral first step of our routine program”¹⁴⁴ PG&E goes on to state that PG&E will “Complete LiDAR inspection of a minimum of 18,000 circuit miles of transmission lines, barring External Factors.”¹⁴⁵

Supporting Information and Analysis: PG&E’s non-spatial QDR for Q4 2022 reports that PG&E’s entire transmission system comprised of 18,111 overhead circuit miles.¹⁴⁶ The QDR submission also stated that “[PG&E] completed Transmission LiDAR inspection of 17,867 circuit miles. [PG&E] informed Energy Safety of an error in the unit of measure used to define the 2022 WMP target for this initiative – at completion of initiative, we identified that our target of approximately 18,000 ‘circuit miles’¹⁴⁷ was intended to have meant ‘line miles’¹⁴⁸ per the Energy Safety definition (resulting in 17,867 circuit miles vs. 18,194 line miles).”¹⁴⁹ PG&E provided a presentation from a meeting between PG&E and Energy Safety held on June 28, 2022 showing that PG&E presented a slide alerting Energy Safety of PG&E’s error in the unit of measure used to define its target.¹⁵⁰

PG&E also provided an Excel file documenting a total of 17,804 miles of aerial LiDAR inspections completed by PG&E’s vendor within project year 2022.¹⁵¹ The documented mileage uses the contractor’s unit of measure. PG&E stated that project year 2022 is defined beginning on 11/15/2021 and ended on 11/14/2022 for field inspections with LiDAR flown and

¹⁴³ Response to DR-223, question 73; attachment “DRU13344_Q73_Atch02_2022_2022 Mid-Cycle UCD Tracker.xlsx.”

¹⁴⁴ [PG&E’s 2022 WMP Update](#), p. 757

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

¹⁴⁵ [PG&E’s 2022 WMP Update](#), p. 758

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

¹⁴⁶ PG&E’s Revised Quarterly Data Report (QDR) for Fourth Quarter 2022, submitted on March 1, 2023, Table 7, sum of cells L28-L45.

¹⁴⁷ [Update Guidelines](#), attachment 2, p. 12.

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=51912&shareable=true>, accessed June 10, 2024).

¹⁴⁸ [Update Guidelines](#), attachment 2, p. 17.

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=51912&shareable=true>, accessed June 10, 2024).

¹⁴⁹ PG&E’s Revised Quarterly Data Report (QDR) for Fourth Quarter 2022, submitted on March 1, 2023, Table 1.

¹⁵⁰ Response to DR-235, question 19: attachment “DRU13713_Q019_Atch01_Slides for OEIS Meeting_06.28.22_Redacted.pdf.”

¹⁵¹ Response to DR-223, question 74; attachment “DRU13344_Q74_Atch01_VM22 LiDAR Data.xlsx.”

processed prior to the start date.”¹⁵² LiDAR inspection data was processed by PG&E’s vendor and delivered to PG&E between November 2021 and January 2022.¹⁵³

PG&E attributes the 196-mile difference between PG&E’s 2022 WMP Update target and the mileage delivered by its vendor to differences in how PG&E and its vendor represented PG&E’s transmission system mileage in 2022. PG&E included a report describing the differences between PG&E’s Electric Transmission Geographic Information System (ETGIS) mileage, and its vendor’s mileage.¹⁵⁴ The report explains that in cases of parallel circuits where six conductors are on the same circuit, the vendor represents all six conductors on a single span in the tower center whereas ETGIS represents the three conductors on each side of the tower separately. This resulted in PG&E’s ETGIS reporting two times more mileage than PG&E’s vendor in parallel circuits. The report also explains that mileage differences can be attributed to different transmission tower location data used by PG&E and its vendor. In summary, due to the differences highlighted above, the vendor reported 17,804 miles of completed inspection whereas PG&E’s ET GIS reported 18,208 miles of completed inspection.¹⁵⁵ Further, PG&E’s vendor attested to completing aerial LiDAR inspection of 100% of PG&E’s transmission system in project year 2022.¹⁵⁶

Based on PG&E’s explanation above, Energy Safety found that PG&E successfully inspected 100% of PG&E’s transmission system (lines carrying 60 kV and above) in project year 2022. Further, PG&E provided documentation explaining the difference between PG&E’s target of 18,000 circuit miles and the 17,804 miles delivered by PG&E’s vendor.

Conclusion: PG&E provided information consistent with the completion of work identified in this statement.

Finding

PG&E provide information consistent with the completion of work identified in Initiative 7.3.5.8: LiDAR Inspections of Vegetation Around Transmission Electric Lines and Equipment.

¹⁵² Response to DR-223, question 74; attachment “DRU13344_2022 SVM 7.3.5.8_DR_OEIS_D001.pdf.”

¹⁵³ Response to DR-223, question 74; attachment “DRU13344_Q74_Atch01_VM22 LiDAR Data.xlsx.”

¹⁵⁴ Response to DR-223, question 76; attachment “DRU13344_Q76_Atch01_PGE+NV5_VM22_MileageDifference.pdf.”

¹⁵⁵ Response to DR-223, question 76; attachment “DRU13344_Q76_Atch02_VM22 PMD Mileage PSS Report_Redacted.pdf.”

¹⁵⁶ Response to DR-223, question 76; attachment “DRU13344_Q76_Atch01_PGE+NV5_VM22_MileageDifference.pdf.”

A.9 Initiative 7.3.5.9: Other Discretionary Inspections of Vegetation Around Distribution Electric Lines and Equipment, Beyond Inspections Mandated by Rules and Regulations

The purpose of this initiative is “inspecting the distribution rights-of-ways and the adjacent vegetation that may be hazardous, which goes beyond the minimum standards in rules and regulations.”¹⁵⁷

Statements, Supporting Information, and Analysis

In PG&E’s 2022 WMP Update, Initiative 7.3.5.9: Other Discretionary Inspection of Vegetation Around Distribution Electric Lines and Equipment, Beyond Inspections Mandated by Rules and Regulations directs readers to Initiative 7.3.5.20.¹⁵⁸ Therefore, Energy Safety did not conduct a separate analysis of the work performed for this initiative.

Finding

See the finding for Initiative 7.3.5.20.

A.10 Initiative 7.3.5.10: Other Discretionary Inspections of Vegetation Around Transmission Electric Lines and Equipment, Beyond Inspections Mandated by Rules and Regulations

The purpose of this initiative is “inspecting transmission rights-of-way to identify vegetation hazards.”¹⁵⁹

Statements, Supporting Information, and Analysis

¹⁵⁷ [Update Guidelines](#), attachment 2, p. 93.

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=51912&shareable=true>, accessed June 10, 2024).

¹⁵⁸ [PG&E’s 2022 WMP Update](#), p. 760

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

¹⁵⁹ [Update Guidelines](#), attachment 2, p. 93.

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=51912&shareable=true>, accessed June 10, 2024).

In PG&E's 2022 WMP Update, Initiative 7.3.5.10: Other Discretionary Inspection of Vegetation Around Transmission Electric Lines and Equipment, Beyond Inspections Mandated by Rules and Regulations directs readers to Initiative 7.3.5.3.¹⁶⁰ Therefore, Energy Safety did not conduct a separate analysis of the work performed for this initiative.

Finding

See the finding for Initiative 7.3.5.3.

A.11 Initiative 7.3.5.11: Patrol Inspections of Vegetation Around Distribution Electric Lines and Equipment

The purpose of this initiative is “to inspect distribution rights-of-way to identify obvious [vegetation] hazards.”¹⁶¹

Statements, Supporting Information, and Analysis

In PG&E's 2022 WMP Update, Initiative 7.3.5.11: Patrol Inspections of Vegetation Around Distribution Electric Lines and Equipment directs readers to Initiative 7.3.5.2.¹⁶² Therefore, Energy Safety did not conduct a separate analysis of the work performed for this initiative.

Finding

See the finding for Initiative 7.3.5.2.

A.12 Initiative 7.3.5.12: Patrol Inspections of Vegetation Around Transmission Electric Lines and Equipment

The purpose of this initiative is “to inspect transmission rights-of-way to identify “obvious [vegetation] hazards.”¹⁶³

Statements, Supporting Information, and Analysis

¹⁶⁰ [PG&E's 2022 WMP Update](#), p. 762

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

¹⁶¹ [Update Guidelines](#), attachment 2, p. 93.

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=51912&shareable=true>, accessed June 10, 2024).

¹⁶² [PG&E's 2022 WMP Update](#), p. 764

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

¹⁶³ [Update Guidelines](#), attachment 2, p. 93.

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=51912&shareable=true>, accessed June 10, 2024).

In PG&E's 2022 WMP Update, Initiative 7.3.5.12: Patrol Inspections of Vegetation Around Transmission Electric Lines and Equipment directs readers to Initiative 7.3.5.3.¹⁶⁴ Therefore, Energy Safety did not conduct a separate analysis of the work performed for this initiative.

Finding

See the finding for Initiative 7.3.5.3.

A.13 Initiative 7.3.5.13: Quality Assurance / Quality Control of Vegetation Management

The purpose of this initiative is the “Establishment and function of audit process to manage and oversee the work completed by employees or contractors, including packaging QA/QC information for input to decision-making and workforce management processes. This includes identification of the percentage of vegetation inspections that are audited annually, as a program target in Table 5.3-1.”¹⁶⁵

Statement 31

Statement: “[Quality Assurance Vegetation Management (QAVM) program] focuses its planned audit work on a higher percentage of HFTD miles. The majority of QAVM audits are Distribution Audits which are comprised of All Circuits audits and HFTD-only audits. The All Circuits audits look at both HFTD and non-HFTD mileage in the bundle. The HFTD only audits look at 100 percent HFTD mileage.”¹⁶⁶

Supporting Information and Analysis: PG&E provided an Excel file listing All Circuits audits and HFTD-only audits conducted in 2022.¹⁶⁷ The Excel file indicates that PG&E conducted a total of 44 audits, 43 of which were conducted on electric distribution lines, across 2,413.8 miles in 2022. The Excel file also indicates that PG&E conducted 20 audits in the HFTD, about 52.9% of the total audit mileage, three of which were made up entirely of HFTD miles. The Excel file indicates that PG&E's QAVM program focused its planned audit work on a higher percentage of HFTD miles.

Conclusion: PG&E provided information consistent with the completion of work identified in this statement.

¹⁶⁴ [PG&E's 2022 WMP Update](#), p. 766

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

¹⁶⁵ [Update Guidelines](#), attachment 2, pp. 93-94.

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=51912&shareable=true>, accessed June 10, 2024).

¹⁶⁶ [PG&E's 2022 WMP Update](#), p. 769

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

¹⁶⁷ Response to DR-223, question 78; attachment “DRU13344_Q78_Atch01_2022 Audit Progress.xlsx.”

Statement 32

Statement: “QVVM prioritizes work based on recently completed inspection and tree work using a statistically valid sampling methodology, in order of the highest profile of work starting with the EVM Work Verification, Distribution/Transmission Pre-Inspection, Distribution / Transmission Tree Trim, Tree Mortality (2nd Patrol), Mid Cycles (were changed in 2021 to focus on High Fire Threat Districts), and Vegetation Control Pole Clearing.”¹⁶⁸

Supporting Information and Analysis: PG&E provided its Quality Management Audit Planning Procedure,¹⁶⁹ which described the process used by Electric Asset Management (EAM) Quality Management (QM) to plan and coordinate audits performed by Distribution Quality Control, Transmission Quality Control, and Electric Quality Assurance (EQA). This procedure discussed the use of a risk-based methodology to prioritize audits and control tests performed.

PG&E also provided its Quality Verification Vegetation Management Audit Procedure (QVVMAP),¹⁷⁰ which discussed the QVVM audit process from the initiation of the audit to the completion of the audit and recommended corrective actions. The procedure required personnel to conduct a sampling process in accordance with internally developed sampling methodology.¹⁷¹ Additionally, the procedure discussed different workflows for when various conditions are observed, including when an “abnormal field condition” is discovered during the assessment, whether a Priority 1 or Priority 2 tree is discovered, and other considerations.

Conclusion: PG&E provided information consistent with the completion of work identified in this statement.

Statement 33

Statement: In its 2022 WMP, PG&E provided tables describing the following QA and QV audit targets:¹⁷²

Quality Assurance Audits:

Type of Audits	# of Audits	AQL
Distribution - voltages less than 60kV in our Routine, Tree Mortality, EVM and Pole Clearing programs.	43	95%

¹⁶⁸ [PG&E's 2022 WMP Update](#), p. 769

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

¹⁶⁹ Response to DR-223, question 79; attachment “DRU13344_Q79_Atch01_RISK-6301P-04_Quality Management Audit Planning Procedure_Redacted.pdf.”

¹⁷⁰Response to DR-223, question 79; attachment “DRU13344_Q79_Atch02_QVVM Audit Procedure (RISK-6301P-10)_Redacted.pdf.”

¹⁷¹ Response to DR-235, question 21; attachment “DRU13713_Q021_Atch01_RISK-6301P-10-Att01_Sample_Methodology_R1_Redacted.pdf.”

¹⁷² [PG&E's 2022 WMP Update](#), pp. 772-773

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

Vegetation Pole Clearing	1	95%
Transmission - high voltage 60kV and greater and applies to maintaining high voltage transmission corridors to Minimum NERC clearance, PRC 4293 clearance, and GO 95 Rule 35 clearance	1	95%
Procedure audit of the following: Enhanced Vegetation Management, Record Keeping, Transmission and Distribution Line Verification, and Refusal Procedure	4	95%

Distribution and transmission audits include multiple trees, and a 95 percent AQL would represent 95 percent of the total trees audited being in compliance with PG&E requirements.

The vegetation pole clearing audit includes multiple poles and a 95 percent AQL would represent 95 percent of the total poles audited being in compliance with PG&E requirements.

The procedure audit includes a review of PG&E’s vegetation standards and whether PG&E’s vegetation management team adhered to the process and procedures in the standard.

Quality Verification Reviews:

Type of Verification	#	AQL
Distribution - voltages less than 60kV in our Routine, Tree Mortality, EVM and Pole Clearing programs.	1,522 Reviews ^(a)	95%
Vegetation Pole Clearing	3,421 Poles	95%
Transmission – high voltage 60kV and greater and applies to maintaining high voltage transmission corridors to Minimum NERC clearance, PRC 4293 clearance, and GO 95 Rule 35 clearance	260 Reviews	95%

Distribution and transmission reviews include multiple trees, and a 95 percent AQL would represent 95 percent of the total trees reviewed being in compliance with PG&E requirements.

The vegetation pole clearing reviews includes multiple poles and a 95 percent AQL would represent 95 percent of the total poles reviewed being in compliance with PG&E requirements.

Supporting Information and Analysis: PG&E provided an Excel file indicating that PG&E completed 43 quality assurance audits along 2,414 miles of distribution lines in 2022. The audits focused on PG&E’s Routine, Tree Mortality, EVM and Pole Clearing programs. The file indicates that a total of 143,269 trees were examined during the audit, of which, 7 occurrences of vegetation contacting distribution lines, and 290 occurrences of vegetation breaking regulatory compliance were recorded resulting in a “regulatory compliance” score

of 99.80% and a “contact compliance” score of 99.995%.¹⁷³ These audit results indicate that PG&E met its target of reaching an acceptable quality Level (AQL) of 95%.

PG&E also provided a report of its 2022 vegetation pole clearing audit. PG&E stated that the audit “examined Vegetation Control (VC) compliance activities across PG&E’s system. Quality Assurance Vegetation Management (QAVM) field reviewed a statistically valid random sample of non-exempt poles in State Responsibility Areas or on U.S. Forest Service lands to assess regulatory compliance as outlined in Public Resource Code (PRC) 4292.”¹⁷⁴

The report indicates that a total of 501 poles were audited in 2022. Of those 501 poles:

- 30 non-compliant poles were identified
- 21 non-compliant poles were in locations that were properly managed according to the work requirements of the VC program.
 - 10 non-compliances were related to customers placing flammable debris within the cylinder after most recent VC site visit.
 - 9 non-compliances were attributed to leaf litter accumulating within the cylinder and grasses resprouting after most recent VC work.
 - 2 non-compliances were attributed to active customer refusals in locations previously designated as customer-maintained poles (Vegetation Maintenance Agreement locations).
- 9 non-compliances were attributed to VC work quality.
 - 6 locations had not been adequately cleared to the standards of the regulation.
 - 3 subject poles had grasses growing within the cylinder that were not cleared during most recent VC inspection.
 - 2 subject poles had been cleared of grass, debris, and branches to less than ten feet from the pole.
 - 1 subject pole had dead vegetation closer than ten feet from the pole.
 - 3 non-compliances were found in locations using “1255 Exemptions” for irrigated landscapes but were not irrigated at time of most recent VC inspection and had cured grasses within the 10 foot cylinder.¹⁷⁵

PG&E’s 2022 WMP Update states that “the vegetation pole clearing audits includes multiple poles and a 95 percent AQL would represent 95 percent of the total poles reviewed being in compliance with PG&E requirements.”¹⁷⁶ Using this definition of AQL, PG&E’s pole clearing

¹⁷³ Response to DR-223, question 80; attachment “DRU13344_Q80_Atch01_2022 Audit Progress- Q No.80.xlsx.”

¹⁷⁴ Response to DR-223, question 81; attachment “DRU13344_Q81_Atch01_2022 VC-1 Vegetation Control Pole Clearing Audit Final Report Package - APPROVED_Redacted.pdf.”

¹⁷⁵ Response to DR-223, question 81; attachment “DRU13344_Q81_Atch01_2022 VC-1 Vegetation Control Pole Clearing Audit Final Report Package - APPROVED_Redacted.pdf.”

¹⁷⁶ [PG&E’s 2022 WMP Update](#), p. 772

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

audit report indicates that 471 of the 501 audited poles were in compliance resulting in an AQL score of 94%.

PG&E also provided a summary report of its 2022 Transmission audit stating that PG&E completed 826 miles of transmission line audits with no regulatory compliance violations indicating an AQL score of 100%.¹⁷⁷

PG&E also provided four procedure audit reports completed in 2022. All four reports provide an overview of different PG&E vegetation management activities.

1. The QAVM EVM Assessment Report indicates that over 95% of PG&E employees and contractors completed PG&E's VEGM-0410 course related to the EVM program, which resulted in a 95% AQL score.¹⁷⁸
2. The QAVM Vegetation Management Documentation Audit Report indicates that only 57% of PG&E employees and contractors were able to follow PG&E's TD-7102P-06 Inspection Mapping Procedure correctly, which resulted in a 57% AQL score.¹⁷⁹
3. The QAVM Transmission & Distribution Line Verification Assessment Report did not provide an AQL score. The audit assessed how well inspectors followed procedural documents related to ensuring that all of PG&E's distribution and transmission system is inspected annually. The report stated that "while the results of this audit show the established procedures are working to some extent, there is notable room for improvement in establishing concise instructions for completing interface point and line verifications and updating the procedures to align with current established VM practices."¹⁸⁰
4. The QAVM Distribution Vegetation Refusal Procedure Report assessed how well refusal records accurately reflect documented timelines. The report did not clearly state how an AQL score was derived from the audit. However, Energy Safety interpreted the percentage of pre-inspectors and tree crew contractors that accurately entered refusal dates as the AQL score. The audit indicated that only 118, or 61% of 194 pre-inspectors and tree crew contractors entered accurate refusal dates into PG&E's database. Additionally, the report stated that "If refusals are managed with inaccurate

¹⁷⁷ Response to DR-223, question 82; attachment "DRU13344_Q82_Atch01_2022 Transmission-1 QAVM Audit Final Report Package - APPROVED_Redacted.pdf."

¹⁷⁸ Response to DR-223, question 83; attachment "DRU13344_Q83_Atch01_2022 QAVM EVM Assessment Final Report_Redacted.pdf."

¹⁷⁹ Response to DR-223, question 83; attachment "DRU13344_Q83_Atch02_2022 QAVM Documentation Audit_Final Report_APPROVED_Record Keeping_Redacted.pdf."

¹⁸⁰ Response to DR-223, question 83; attachment "DRU13344_Q83_Atch03_QAVM Transmission and Distribution Line Verification Audit Final Report_Redacted.pdf."

timelines, PG&E Vegetation Management runs the risk of a location not being inspected or non-compliances/hazards being mitigated within a reasonable timeframe.”¹⁸¹

PG&E also provided an Excel file documenting completion dates of Quality Verification Reviews.¹⁸² The file indicates that PG&E audited 1,629 trees for compliance during the Distribution Review, audited 3,469 poles for compliance during the Pole Clearing Review, and audited 349 trees for compliance during the Transmission Review.

PG&E also provided Excel files containing results from the Distribution, Pole Clearing, and Transmission reviews. The Excel files indicate that the Distribution Review received a 91% AQL score, the Pole Clearing Review received a 90% AQL score, and the Transmission Review received a 94% AQL score.

The provided information indicates that PG&E did not receive a 95% AQL score from three Quality Assurance Audits, and three Quality Verification Reviews. Additionally, PG&E did not clearly define an AQL score for its Transmission & Distribution Line Verification Audit. PG&E must include an AQL score for its Transmission & Distribution Line Verification audit in PG&E’s corrective action response.

Conclusion: PG&E did not provide information consistent with the completion of work identified in this statement.

Finding

PG&E did not provide information consistent with the completion of all work identified in Initiative 7.3.5.13 Quality Assurance / Quality Control of Vegetation Management. PG&E must supply a corrective action response addressing the findings identified in statement 33 above.

A.14 Initiative 7.3.5.14: Recruiting and Training of Vegetation Management Personnel

The purpose of this initiative is to facilitate “Programs to ensure that the utility can identify and hire qualified vegetation management personnel and to ensure that both employees and contractors tasked with vegetation management responsibilities are adequately trained to perform vegetation management work, according to the utility’s wildfire mitigation plan, in

¹⁸¹ Response to DR-223, question 83; attachment “DRU13344_Q83_Atch04_2022 QAVM Refusal Procedure Audit Final Report -Approved_Redacted.pdf.”

¹⁸² Response to DR-223, question 84; attachment “DRU13344_Q84_Atch01_QVVM Completed Review Logs_20230216.xlsx.”

addition to rules and regulations for safety. Include discussion of continuous improvement of training programs and personnel qualifications.”¹⁸³

Statement 34

Statement: “PG&E is exploring approaches to increase the population of qualified tree workers to perform [VM] work. We use our Pre-Inspector basics SLP to provide specific, well-defined training related to the work being performed. To bolster recruitment and the pipeline of qualified personnel, we have partnered with the IBEW and educational institutions, such as the California Community College system, to establish a training program designed to provide the skills and knowledge necessary to perform tree crew work safely and competently.”¹⁸⁴

Supporting Information and Analysis: PG&E provided Excel files indicating that PG&E held 38 pre-inspector and tree crew related classes at 11 different community colleges in 2022.¹⁸⁵ PG&E also provided rosters from all tree crew and pre-inspector classes indicating that over 800 students completed the classes in 2022.¹⁸⁶ Lastly, PG&E provided its pre-inspector class syllabus indicating that the class contained 80 hours of material and consisted of content pertinent to pre-inspection work.¹⁸⁷ The provided data indicates that PG&E partnered with the California Community College System in 2022 to hold classes related to pre-inspection, and tree crew work.

Conclusion: PG&E provided information consistent with the completion of work identified in this statement.

Statement 35

Statement: “Prior to identifying the most effective contract vendors we ensure the vendor is appropriate to perform the scope of work identified and we validate the vendors’ safety presence in the industry.”¹⁸⁸

Supporting Information and Analysis: PG&E provided a summary and vendor selection criteria from its Request for Proposal (RFP) in 2022 for Tree Trimming (TT) Prescriptive Unit

¹⁸³ [Update Guidelines](#), attachment 2, p. 94.

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=51912&shareable=true>, accessed June 10, 2024).

¹⁸⁴ [PG&E’s 2022 WMP Update](#), p. 779

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

¹⁸⁵ Response to DR-223, question 89; attachment “DRU13344_Q89_Atch02_PI Training Dates Per College.pdf,” and “DRU13344_Q89_Atch01_2022 Tree Crew Training Dates.pdf.”

¹⁸⁶ Response to DR-223, question 89; attachment DRU13344_Q89_Atch04_Pre-Inspector Trainees by College_Redacted.pdf,” “DRU13344_Q89_Atch03_List of Tree Crew Attendees_Redacted.pdf.”

¹⁸⁷ Response to DR-223, question 89; attachment “DRU13344_Q89_Atch05_Utility VM Level 1 Pre Inspector.pdf.”

¹⁸⁸ [PG&E’s 2022 WMP Update](#), p. 780

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

Pricing.¹⁸⁹ The summary of vendor selection criteria indicates that 38 vendors were invited into the RFP process, of which 14 were awarded contracts. The summary of vendor selection criteria also indicates that PG&E's vendor selection criteria considered pricing, safety, and technical considerations, along with capacity to support all in-scope program work within a division and resource availability.

PG&E also provided a list of 31 vendors and their respective contact information that were used in 2022 based on the selection criteria described above.¹⁹⁰

Conclusion: PG&E provided information consistent with the completion of work identified in this statement.

Statement 36

Statement: "PG&E has developed Tree Crew and Inspector Training programs to support a steady pipeline of qualified personnel who may later join our contract or internal VM workforce. PG&E's PI basics SLP and related training courses provide personnel with an opportunity to earn continuing education credit that can be used towards obtaining certification. Our educational partnerships allow us to provide employees and contractors with a direct path of obtaining certification."¹⁹¹

Supporting Information and Analysis: PG&E provided copies of its training modules for Line Clearance Arborists and Pre-Inspectors.¹⁹² PG&E stated it finished developing the tree crew 200-hour training program with Butte College in August 2020, which classes continued throughout 2022. PG&E also stated that it developed the pre-inspector training program in August 2021 and continued throughout 2022. Finally, PG&E stated that it updated the curriculum in August 2022, and provided a copy of the updated course syllabus which was dated August 2, 2022.¹⁹³

Conclusion: PG&E provided information consistent with the completion of work identified in this statement.

¹⁸⁹ Response to DR-223, question 90; attachment "DRU13344_Q90_Atch01_TT 2022 RFP Evaluation Criteria - Invite through Award.pdf."

¹⁹⁰ Response to DR-223, question 91; attachment "DRU13344_Q91_Atch01_2022_Veg Mgmt MSA Tracker 2022.xlsx."

¹⁹¹ [PG&E's 2022 WMP Update](#), p. 780

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

¹⁹² Response to DR-223, question 92; attachments "DRU13344_Q92_Atch01_Utility Arborist Training Meeting 8.6.2020_Redacted.pdf" and "DRU13344_Q92_Atch03_PI Course Outline 8-17-2021.pdf."

¹⁹³ Response to DR-223, question 92; attachment "DRU13344_Q92_Atch04_PI Course Curriculum 8-2-2022.pdf."

Statement 37

Statement: “The One Veg Tool is our new software program that was developed to deliver a single tool that incorporates all vegetation management work into one. As of June 1, 2022, we had made available the following training regarding the One Veg Tool for PG&E employees and contractors with a completion target for all employees and contractors of December 31, 2022.

- VEGM – 9101 – One VM for Veg Mgt Inspectors (VMI);
- VEGM – 9102 – One VM for Field Tree Crews;
- VEGM – 9103 – One VM for Field Tree Crews (Spanish version);
- VEGM – 9104 – One VM for Tree Crew back-office support; and
- VEGM – 9105 – One VM for Support Teams.”¹⁹⁴

Supporting Information and Analysis: PG&E provided a roster indicating that 3,749 total PG&E employees and contractors were employed in vegetation management positions as of December 31, 2022.¹⁹⁵ PG&E also provided a roster indicating that only 780 PG&E employees and contractors completed at least one of the trainings listed in statement 37 above in 2022.¹⁹⁶ PG&E failed to provide One Veg Tool training to 2,969 PG&E employees and contractors in 2022.

Conclusion: PG&E did not provide information consistent with the completion of work identified in this statement.

Statement 38

Statement: “We will be replacing the interim VEGM-9068RVL training module that was implemented on November 1, 2021, with a new strike tree training module. The strike tree training module will be refresher curriculum to be completed by December 31, 2022.”¹⁹⁷

Supporting Information and Analysis: PG&E provided a 2022 presentation of its VEGM-9071RVL annual refresher training,¹⁹⁸ which included a strike tree training module, clarified

¹⁹⁴ [PG&E's 2022 WMP Update](#), p. 782

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

¹⁹⁵ Response to DR-235, question 23; attachment “DRU13713_Energy Safety-DR-235_Audit_DR_OEIS_D001.pdf,” p. 3.

¹⁹⁶ Response to DR-223, question 93; attachment “DRU13344_Q93_Atch03_2022 VM Completed Training Report.xlsx.”

¹⁹⁷ [PG&E's 2022 WMP Update](#), p. 782

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

¹⁹⁸ Response to DR-223, question 94; attachment “DRU13344_Q94_Atch01_VEGM-9071_VM Annual Refresher_v2_Use for Rerecording.pdf.”

the definition of a strike tree, and provided updates on PG&E's 2022 vegetation inspection procedures. PG&E stated that the module replaced VEGM-9068RVL.¹⁹⁹

Conclusion: PG&E provided information consistent with the completion of work identified in this statement.

Statement 39

Statement: “We are expanding and improving our environmental courses for Field Crews and Tree Crews (VEGM-0301 and VEGM-0302). The updated training will be available for PG&E employees and contractors by December 31, 2022. These courses include expanded course curriculum to cover all Best Management Practices with field examples.”²⁰⁰

Supporting Information and Analysis: PG&E provided a “Version Change History” document for its VEGM-0301 course indicating that the course curriculum was expanded in August 2022 to include additional training on environmental issues.²⁰¹ However, the VEGM-0302 course did not receive content updates during 2022.²⁰² Based on the provided information, PG&E failed to “expand and improve” its VEGM-0302 course in 2022.

Conclusion: PG&E did not provide information consistent with the completion of work identified in this statement.

Statement 40

Statement: “The Tree Crew Qualification program is continuing to expand the available assessments. Qualified assessors will perform skills assessments for Tree Crew Workers in a safe and controlled environment. Assessors will evaluate and document a Workers hands-on skills, knowledge, and abilities.”²⁰³

Supporting Information and Analysis: PG&E provided an Excel file of training records and assessments conducted in 2022 for the Tree Crew Qualification Program.²⁰⁴ The file indicates that PG&E employees assessed contractors employed in “active tree worker roles” on various skills related to tree work and given a pass or fail grade for each skill.

¹⁹⁹ Response to DR-223, question 94; attachment “DRU13344_2022 SVM 7.3.5.14_DR_OEIS_D001.pdf,” p. 4.

²⁰⁰ [PG&E's 2022 WMP Update](#), p. 782

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

²⁰¹ Response to DR-223, question 95; attachment “DRU13344_Q95_Atch02_ReadMe Archive Sample 2.pdf.”

²⁰² Response to DR-235, question 22; attachment “DRU13713_Energy Safety-DR-235_Audit_DR_OEIS_D002_Redacted.pdf,” p. 6.

²⁰³ [PG&E's 2022 WMP Update](#), p. 783

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

²⁰⁴ Response to DR-223, question 96; attachments “DRU13344_Q96_Atch01_2022 ITS Records Report_Redacted.xlsx.”

Conclusion: PG&E provided information consistent with the completion of work identified in this statement.

Statement 41

Statement: “We have implemented targeted trainings, including formal trainings and “5 Minute Meetings” on specific issues as deemed appropriate to address changes in process, the addition of new resources, and other areas to establish consistency.”²⁰⁵

Supporting Information and Analysis: PG&E provided 3 web based trainings published in 2020, and 2021 that were available to PG&E employees and contractors in 2022.²⁰⁶ The trainings cover protocols and procedures related to vegetation management programs. PG&E also included four, 5-minute meetings that were emailed to PG&E employees and contractors in 2022.²⁰⁷ The 5-minute meetings gave brief overviews of important protocols and procedures related to vegetation management programs.

Conclusion: PG&E provided information consistent with the completion of work identified in this statement.

Finding

PG&E did not provide information consistent with the completion of all work identified in Initiative 7.3.5.14: Recruiting and Training of Vegetation Management Personnel. PG&E must supply a corrective action response addressing the findings identified in statements 37 and 39 above.

²⁰⁵ [PG&E's 2022 WMP Update](#), p. 783

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

²⁰⁶ Response to DR-223, question 97; attachments “DRU13344_Q97_Atch05_VEGM-9062RVL.pdf,” “DRU13344_Q97_Atch06_VEGM-9057VL_Redacted.pdf,” and “DRU13344_Q97_Atch07_VEGM-9068RVL Strike Tree Evaluation.pdf.”

²⁰⁷ Response to DR-223, question 97; attachments “DRU13344_Q97_Atch01_Email 1_VM Thursday Procedure - Abnormal Field Conditions 5MM and Procedure_Redacted.pdf,” “DRU13344_Q97_Atch02_Email 2_PG&E 5MM - VM Agency Notifications_Redacted.pdf,” “DRU13344_Q97_Atch03_Email 3_5MM-Reporting Compliance Concerns Resulting From Regulator Agency Inspections_Redacted.pdf,” “DRU13344_Q97_Atch04_Email 4_5MM Communication Request Additional Constraint Value for EVM_Redacted.pdf.”

A.15 Initiative 7.3.5.15: Identification and Remediation of “At-Risk Species”

The purpose of this initiative is that “Specific actions, not otherwise described in other WMP initiatives, taken to reduce the ignition probability and wildfire consequence attributable to “at-risk species”, such as trimming, removal, and replacement.”²⁰⁸

Statement 42

Statement: “The results of our Targeted Tree Species study in conjunction with improving the Tree Assessment Tool (TAT) will allow PG&E to more accurately identify and mitigate trees at elevated risk of failure, providing better visibility into risk.”²⁰⁹

Supporting Information and Analysis: PG&E stated that it made improvements to the TAT in 2022 because of recommendations from the Targeted Tree Species study.²¹⁰ PG&E provided the nine recommendations in the final report of the Targeted Tree Species Study, which included various actions taken by PG&E to improve the TAT tool.²¹¹

Conclusion: PG&E provided information consistent with the work identified in this statement.

Finding

PG&E provided information consistent with the completion of work identified in Initiative 7.3.5.15: Identification and Remediation of “at-Risk Species.”

A.16 Initiative 7.3.5.16: Removal and Remediation of Trees with Strike Potential to Electric Lines and Equipment

The purpose of this initiative is that “Actions taken to identify, remove, or otherwise remediate trees that pose a high risk of failure or fracture that could potentially strike electrical equipment.”²¹²

Statements, Supporting Information, and Analysis

²⁰⁸ [Update Guidelines](#), attachment 2, p. 94.

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=51912&shareable=true>, accessed June 10, 2024).

²⁰⁹ [PG&E’s 2022 WMP Update](#), p. 784

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52782&shareable=true>, accessed June 12, 2024).

²¹⁰ Response to DR-223, question 65; attachment “DRU13344_2022 SVM 7.3.5.6_DR_OEIS_D001.pdf.” p. 12.

²¹¹ Response to DR-223, question 65; attachment “DRU13344_2022 SVM 7.3.5.15_DR_OEIS_D001.pdf,” p. 1

²¹² [Update Guidelines](#), attachment 2, p. 94.

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=51912&shareable=true>, accessed June 10, 2024).

In PG&E’s 2022 WMP Update, Initiative 7.3.5.16: Removal and Remediation of Trees with Strike Potential to Electric Lines and Equipment directs readers to Initiatives 7.3.5.2 and 7.3.5.3.²¹³ Therefore, Energy Safety did not conduct a separate analysis of the work performed for this initiative.

Finding

See the findings for Initiatives 7.3.5.2 and 7.3.5.3.

A.17 Initiative 7.3.5.17: Substation Inspections

The purpose of this initiative is to inspect “vegetation surrounding substations.”²¹⁴

Statement 43

Statement: “PG&E assesses the areas around Electric Distribution Substations in HFTD and HFRA areas to identify potential flammable fuels and vegetation for removal in order to minimize the potential for ignition spread outside of facilities and to provide improved structure defense capability for firefighting purposes by ensuring there is a safe distance between vegetation and critical infrastructure. This program is referred to as utility defensible space or UDS.”²¹⁵

Supporting Information and Analysis: PG&E provided five examples of distribution utility defensible space work orders dated November 18, 2021, November 30, 2021, December 13, 2021, February 1, 2022, and February 9, 2022.²¹⁶ The work orders included images and information about location, covered drainage or erosion issues, debris concerns, road access issues, security issues, site sensitivities, UDS compliance matters and descriptions of work necessary. PG&E also provided an Excel file indicating that the five work orders described above were linked to substations associated with PG&E’s distribution system.²¹⁷

²¹³ [PG&E’s 2022 WMP Update](#), p. 786

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=51912&shareable=true>, accessed June 10, 2024).

²¹⁴ [Update Guidelines](#), attachment 2, p. 94.

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=51912&shareable=true>, accessed June 10, 2024).

²¹⁵ [PG&E’s 2022 WMP Update](#), p. 789

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=51912&shareable=true>, accessed June 10, 2024).

²¹⁶ Response to DR-223, question 99; attachment “DRU13344_Q99_Atch01_DS_HFTD SUBSTATIONS_PI FORM_ZACA_20220201_Redacted.pdf,” “DRU13344_Q99_Atch02_DS_HFTD SUBSTATIONS_PI FORM_RESERVATION ROAD_20220209_Redacted.pdf,” “DRU13344_Q99_Atch03_DS_HFTD SUBSTATIONS_PI FORM_LOW GAP_20211130_Redacted.pdf,” “DRU13344_Q99_Atch04_DS_HFTD SUBSTATIONS_PI FORM_COARSEGOLD_20211213_Redacted.pdf,” “DRU13344_Q99_Atch05_DS_HFTD SUBSTATIONS_PI FORM_ALLEGHANY_20211118_Redacted.pdf.”

²¹⁷ Response to DR-235, question 23; attachment “DRU13713_Energy Safety-DR-235_Audit_DR_OEIS_D001.pdf,” p. 3.

Regarding the timing of substation inspections, PG&E explained in a data request response to Energy Safety that as defined in Section 1.1 of PG&E's Procedure LAND-4001P-01, inspections included in the 2022 count were performed beginning on November 15th of the prior year and ended on May 31st of the current year.²¹⁸ However, PG&E did not clearly state in its 2022 WMP Update that it intended to use procedure LAND-4001P-01 for setting its 2022 electric distribution substation inspection cycle. Because PG&E did not reference procedure LAND-4001P-01 in its 2022 WMP Update, Energy Safety's audit only assessed electric distribution substation inspection work performed by PG&E in 2022. The two work orders with 2022 dates indicate that PG&E assessed areas around electric distribution substations in HFTD areas in 2022.

Conclusion: PG&E provided information consistent with the completion of work identified in this statement.

Statement 44

Statement: "In 2022, distribution substation defensible space inspections will be prioritized and executed using Wildfire Consequence Model (WFC Model) scores, defensible space risk, and terrain/suppression risk to determine the prioritization of distribution substations included in the 2022 defensible space inspection program."²¹⁹

Supporting Information and Analysis: PG&E provided an Excel file indicating that PG&E assigned WFC Model risk scores to 132 distribution substations in 2022.²²⁰ The Excel file indicates that PG&E classified 16 distribution substations as "High Risk," 30 as "High Consequence," and two as "High Terrain/Suppression Risk." The provided information indicates that PG&E determined prioritization levels for its 2022 defensible space program.

Conclusion: PG&E provided information consistent with the completion of work identified in this statement.

Statement 45

Statement: "Complete defensible space inspections in alignment with the guidelines set forth in PRC 4291 at 132 distribution substations within HFTD areas or HFRA, barring External Factors."²²¹

²¹⁸ Response to DR-223, question 99; attachment "DRU13344_2022 SVM 7.3.5.17_DR_OEIS_D001.pdf," p. 1.

²¹⁹ [PG&E's 2022 WMP Update](#), p. 789

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=51912&shareable=true>, accessed June 10, 2024).

²²⁰ Response to DR-223, question 100; attachment "DRU13344_Q100_Atch01_2022 Distribution WFC Scores.xlsx.

²²¹ [PG&E's 2022 WMP Update](#), p. 790.

Supporting Information and Analysis: PG&E provided an Excel file indicating that PG&E inspected 132 distribution substations in HFTD areas between November 15, 2021, and June 27, 2022, of which 68 inspections were completed in 2021.²²²

Regarding the timing of substation inspections, PG&E explained in a data request response to Energy Safety that as defined in Section 1.1 of PG&E's Procedure LAND-4001P-01, inspections included in the 2022 count were performed beginning on November 15th of the prior year and ended on May 31st of the current year.²²³ However, PG&E did not state in its 2022 WMP Update that it intended to use procedure LAND-4001P-01 for setting its 2022 electric distribution substation inspection cycle. Because PG&E did not reference procedure LAND-4001P-01 in its 2022 WMP Update, Energy Safety's audit only assessed electric distribution substation inspection work performed by PG&E in 2022. As a result, Energy Safety found that PG&E inspected 64 distribution substations, or 48% of its target.

Conclusion: PG&E did not provide information consistent with the completion of work identified in this statement.

Statement 46

Statement: "PG&E assesses the areas around Electric Transmission Substations in HFTD and HFRA areas to identify potential flammable fuels and vegetation for removal in order to minimize the potential for ignition spread outside of facilities and to provide improved structure defense capability for firefighting purposes by ensuring there is a safe distance between vegetation and critical infrastructure."²²⁴

Supporting Information and Analysis: PG&E provided five transmission utility defensible space work orders dated December 20, 2021, December 14, 2021, February 3, 2022, February 16, 2022, and January 6, 2022.²²⁵ The work orders included images and information about location, covered drainage or erosion issues, debris concerns, road access issues, security issues, site sensitivities, UDS compliance matters and descriptions of work necessary. All work orders were from inspections performed in HFTD areas.

Regarding the timing of substation inspections, PG&E explained in a data request response to Energy Safety that as defined in Section 1.1 of procedure LAND-4001P-01, inspections

²²² Response to DR-223, question 103; attachment "DRU13344_Q103_Atch01_2022 Distribution Inspection Program Dates.xlsx"

²²³ Response to DR-223, question 99; attachment "DRU13344_2022 SVM 7.3.5.17_DR_OEIS_D001.pdf," p. 1.

²²⁴ [PG&E's 2022 WMP Update](#), p. 791.

²²⁵ Response to DR-223, question 105; attachments "DRU13344_Q105_Atch01_DS_HFTD SUBSTATIONS_PI FORM_SOBRANTE_20220106_Redacted.pdf," "DRU13344_Q105_Atch02_DS_HFTD SUBSTATIONS_PI FORM_BELDEN_20220216_Redacted.pdf," "DRU13344_Q105_Atch03_DS_HFTD SUBSTATIONS_PI FORM_HYAMPOM SW STA_20220203_Redacted.pdf," "DRU13344_Q105_Atch04_DS_HFTD SUBSTATIONS_PI FORM_MELONES SW STA_20211214_Redacted.pdf," and "DRU13344_Q105_Atch05_DS_HFTD SUBSTATIONS_PI FORM_ROUND MTN_20211220_Redacted.pdf."

included in the 2022 count were performed beginning on November 15th of the prior year and ended on May 31st of the current year.”²²⁶ However, PG&E did not state in its 2022 WMP Update that it intended to use procedure LAND-4001P-01 for setting its 2022 electric transmission substation inspection cycle. Because PG&E did not reference procedure LAND-4001P-01 in its 2022 WMP Update, Energy Safety’s audit only assessed electric transmission substation inspection work performed by PG&E in 2022. The three work orders with 2022 dates indicate that PG&E assessed areas around electric transmission substations in HFTD areas in 2022.

Conclusion: PG&E provided information consistent with the completion of work identified in this statement.

Statement 47

Statement: “Complete defensible space inspections in alignment with the guidelines set forth in PRC 4291 at 55 transmission substations within HFTD areas or HFRA, barring External Factors.”²²⁷

Supporting Information and Analysis: PG&E provided an Excel file indicating that PG&E inspected 55 transmission substations between November 19, 2021, and June 9, 2022, of which, 16 inspections were completed in 2021.²²⁸

Regarding the timing of substation inspections, PG&E explained in a data request response to Energy Safety that as defined in Section 1.1 of Procedure LAND-4001P-01 inspections included in the 2022 count were performed beginning on November 15th of the prior year and ended on May 31st of the current year.”²²⁹ However, PG&E did not state in its 2022 WMP Update that it intended to use procedure LAND-4001P-01 for setting its 2022 transmission substation inspection cycle. Because PG&E did not reference procedure LAND-4001P-01 in its 2022 WMP Update, Energy Safety’s audit only assessed transmission substation inspection work performed by PG&E in 2022. As a result, Energy Safety found that PG&E inspected 39 transmission substations, or 70% of its target.

Conclusion: PG&E did not provide information consistent with the completion of work identified in this statement.

²²⁶ Response to DR-223, question 99; attachment “DRU13344_2022 SVM 7.3.5.17_DR_OEIS_D001.pdf,” p. 1.

²²⁷ [PG&E’s 2022 WMP Update](#), p. 790

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=51912&shareable=true>, accessed June 10, 2024).

²²⁸ Response to DR-223, question 109; attachment “DRU13344_Q109_Atch01_2022 Transmission Inspection Program Dates.xlsx.”

²²⁹ Response to DR-223, question 99; attachment “DRU13344_2022 SVM 7.3.5.17_DR_OEIS_D001.pdf,” p. 1.

Statement 48

Statement: “In accordance with our Procedure LAND-5201P-01, PG&E assesses the area around Hydro Generation Substations and Powerhouses in HFTD and HFRA areas to identify potential flammable fuels and vegetation for removal to minimize the potential for ignition spread outside of facilities and to provide improved structure defense capability for firefighting purposes and to reduce risk of potential loss.”²³⁰

Supporting Information and Analysis: PG&E provided four reports from Hydro Generation powerhouse Defensible Space inspections conducted in 2022.²³¹ The reports include images and information about location, pre-and post-inspection data, exception details, and inspection notes with descriptions of issues observed and any immediate actions required. PG&E also provided its Procedure LAND-5201P-01 (Generation Powerhouse and Switchyard Defensible Space).²³² Based on the procedures described in LAND-5201P-01 the notes section of the Hydro Generation powerhouse Defensible Space inspection reports indicate that inspectors followed LAND-5201P-01 procedure to create work orders for vegetation that was non-compliant with LAND-5201P-01.

Conclusion: PG&E provided information consistent with the completion of work identified in this statement.

Statement 49

Statement: “Power Generation Hydro Substations and Powerhouses located in HFTD and HFRA areas are inspected. Inspections are prioritized based on elevation and annual fuel growth in which lower elevations are inspected first as they have a higher rate of growth and dry out earlier in the season whereas higher elevations grow slower and later into the year.”²³³

Supporting Information and Analysis: PG&E provided an Excel file indicating that PG&E inspected 61 power generation hydro substations and powerhouses in HFTD areas between January and May of 2022.²³⁴

With respect to the prioritization of inspections, PG&E stated that “the dates of inspections [in the provided Excel file] demonstrate [PG&E’s] priority level for that site. For example, the

²³⁰ [PG&E’s 2022 WMP Update](#), p. 793

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=51912&shareable=true>, accessed June 10, 2024).

²³¹ Response to DR-223, question 111; attachments “DRU13344_Q111_Atch01-Tiger Creek_NRM Inspections Point Report 5_27_2022_Redacted.pdf,” “DRU13344_Q111_Atch02-Stanislaus PH_NRM Inspections Point Report 5_10_2022_Redacted.pdf,” “DRU13344_Q111_Atch03_Limesaddle PH DS Report 2022_Redacted.pdf,” “DRU13344_Q111_Atch04_Bucks PH DS Report 2022_Redacted.pdf.”

²³² Response to DR-223, question 112; attachment “DRU13344_Q112_Atch01_LAND-5201P-01_Redacted.pdf.”

²³³ [PG&E’s 2022 WMP Update](#), p. 793

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=51912&shareable=true>, accessed June 10, 2024).

²³⁴ Response to DR-223, questions 113 and 114; attachments “DRU13344_Q113_Atch01_2022 Tracker for WMP.xlsx” and “DRU13344_2022 SVM 7.3.5.17_DR_OEIS_D001.pdf,” p. 6.

earlier inspection dates were prioritized based on that site and later for lower priority sites.”²³⁵ However, based on the information provided, Energy Safety could not determine that power generation hydro substations and powerhouses were prioritized based on elevation and annual fuel growth.

Conclusion: PG&E did not provide information consistent with the completion of work identified in this statement.

Statement 50

Statement: “Complete defensible space inspections at 61 Hydroelectric Generation Substations and Powerhouses within HFTD areas or HFRA, barring External Factors.”²³⁶

Supporting Information and Analysis: PG&E provided an Excel file indicating that PG&E inspected 61 power generation hydro substations and powerhouses in HFTD areas between January and May of 2022.²³⁷

Conclusion: PG&E provided information consistent with the completion of work identified in this statement.

Statement 51

Statement: “Power Generation has developed an evaluation process, which evaluates the risk associated with unique situations at hydro generation sites, that inhibit the ability to achieve full defensible space as described. Included in the evaluation process are SIPT team members, Power Generation and substation fire marshals and Natural Resource Management (NRM) team members which evaluate the risk and make recommendations if further mitigations are required.”²³⁸

Supporting Information and Analysis: PG&E provided its Risk Evaluation Process (LAND-5201P-01-F01) utilized during unique situations at hydro generation sites where a full defensible space cannot be achieved. The procedure indicates that the hydro generation defensible space evaluation process evaluates risk associated with unique situations.²³⁹ PG&E

²³⁵ Response to DR-235, question 23; attachment “DRU13713_Energy Safety-DR-235_Audit_DR_OEIS_D001.pdf,” p. 3.

²³⁶ [PG&E's 2022 WMP Update](#), p. 79

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=51912&shareable=true>, accessed June 10, 2024).

²³⁷ Response to DR-223, questions 113 and 114; attachments “DRU13344_Q113_Atch01_2022 Tracker for WMP.xlsx” and “DRU13344_2022 SVM 7.3.5.17_DR_OEIS_D001.pdf,” p. 6.

²³⁸ [PG&E's 2022 WMP Update](#), p. 794

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=51912&shareable=true>, accessed June 10, 2024).

²³⁹ Response to DR-223, question 114; attachment “DRU13344_Q114_LAND-5201P-01-F01.PDF,” p. 2.

stated that the evaluation process was not utilized or needed in 2022 as all 61 Power Generation powerhouses met full defensible space.²⁴⁰

Conclusion: PG&E provided information consistent with the completion of work identified in this statement.

Finding

PG&E did not provide information consistent with the completion of all work identified in Initiative 7.3.5.17: Substation Inspections. PG&E must supply a corrective action response addressing the findings identified in statements 45, 47, and 49 above.

A.18 Initiative 7.3.5.18: Substation Vegetation Management

The purpose of this initiative is to take actions “to reduce the ignition probability and wildfire consequences attributable to contact from vegetation to substation equipment.”²⁴¹

Statements, Supporting Information, and Analysis

PG&E’s 2022 WMP Update, Initiative 7.3.5.18: Substation Vegetation Management, directs readers to Initiative 7.3.5.17²⁴² Therefore, Energy Safety did not conduct a separate analysis of the work performed for this initiative.

Finding

See the finding for Initiative 7.3.5.17.

A.19 Initiative 7.3.5.19: Vegetation Management Enterprise System

The purpose of the initiative is to establish “Inputs, operation, and support for a centralized vegetation management enterprise system updated based upon inspection results and management activities such as trimming and removal of vegetation.”²⁴³

²⁴⁰ Response to DR-223, question 114; attachment “DRU13344_2022 SVM 7.3.5.17_DR_OEIS_D001.pdf,” p. 6.

²⁴¹ [Update Guidelines](#), attachment 2, p. 94.

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=51912&shareable=true>, accessed June 10, 2024).

²⁴² [PG&E’s 2022 WMP Update](#), p. 802

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=51912&shareable=true>, accessed June 10, 2024).

²⁴³ [Update Guidelines](#), attachment 2, p. 94.

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=51912&shareable=true>, accessed June 10, 2024).

Statement 52

Statement: “PG&E plans to roll out our One VM Tool to the following teams: Routine Maintenance (Distribution) and Tree Mortality.”²⁴⁴

Supporting Information and Analysis: PG&E provided an email from May 9, 2022 which stated that “[PG&E is] immensely proud to announce that the One VM Tool is now live and ready for use for Routine Distribution and Tree Mortality Patrol teams, starting with the Central Coast and Los Padres divisions.”²⁴⁵ PG&E also provided slides from a town hall meeting held on April 14, 2022 which described the One VM phased roll out schedule and scheduled One VM trainings for PG&E employees and contractors.

Conclusion: PG&E provided information consistent with the completion of work identified in this statement.

Finding

PG&E provided information consistent with the completion of work identified in Initiative 7.3.5.19: Vegetation Management Enterprise System.

A.20 Initiative 7.3.5.20: Vegetation Management to Achieve Clearances Around Electric Lines and Equipment

The purpose of this initiative is that “Actions taken to ensure that vegetation does not encroach upon the minimum clearances set forth in Table 1 of GO 95, measured between line conductors and vegetation, such as trimming adjacent or overhanging tree limbs.”²⁴⁶

Statement 53

Statement: “As the prioritization of Overhead Asset UDS evolves, it will continue targeting risk reduction using the WDRM as a primary tool to identify new work in HFTD areas. However, it will also focus on supplemental fuel mitigation on distribution assets across the territory

²⁴⁴ [PG&E’s 2022 WMP Update](#), p. 804

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=51912&shareable=true>, accessed June 10, 2024).

²⁴⁵ Response to DR-223, question 116; attachment “DRU13344_Q116_Atch02_VMDR-2820 FW_ One VM Tool is _Live_Redacted.pdf.”

²⁴⁶ [Update Guidelines](#), attachment 2, p. 95.

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=51912&shareable=true>, accessed June 10, 2024).

outside of this model to promote collaborative risk reduction working with regional input to prioritize additional work and maintenance.”²⁴⁷

Supporting Information and Analysis: PG&E stated that, following the approval of the three-tranche plan by the Wildfire Risk Governance Steering Committee (WRGSC), no work in HFTD areas was identified by the Wildfire Distribution Risk Model (WDRM) in 2022.²⁴⁸

PG&E stated that local projects were identified by regional teams in 2022 to target additional work in the HFTD areas. All 2022 work was in HFTD areas, and in Circuit Protection Zones (CPZs) with risk rankings in the top 20% as defined by the WDRM model.²⁴⁹ PG&E provided a 2022 Excel file that reported the work conducted for tranche 1, tranche 2, and tranche 3 of the three-tranche plan and described the scope of work completed in 2022.²⁵⁰

Additionally, PG&E provided internal emails from 2021 requesting regional input and submittals for 2022 UDS projects from PG&E vegetation management leadership. The emails also discussed next steps for discussion at the Wildfire Risk Governance Committee meeting to obtain approval.²⁵¹ PG&E stated that the 2022 workplan was based on this 2021 UDS plan and collaborative effort. For 2022 updates, PG&E provided supplemental communications from December 2021 in which managers solicited input for the 2022 work plan,²⁵² and subsequent communications from February 2022 in which the Principal Program Manager communicated the UDS team’s completed review of regional input submissions for the 2022 plan along with preliminary priorities identified.²⁵³

Conclusion: PG&E provided information consistent with the completion of work identified in this statement.

²⁴⁷ [PG&E’s 2022 WMP Update](#), p. 807

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=51912&shareable=true>, accessed June 10, 2024).

²⁴⁸ Response to DR-223, question 117; attachment “DRU13344_2022 SVM 7.3.5.20_DR_OEIS_D001.pdf,” p. 1.

²⁴⁹ Response to DR-223, question 117; attachment “DRU13344_2022 SVM 7.3.5.20_DR_OEIS_D001.pdf,” p. 1.

²⁵⁰ Response to DR-223, question 117; attachment “DRU13344_Q117_Atch01_COA close out 2022 Tranche 1 2 3 Data Combined 20221104 V4_Redacted.xlsx.”

²⁵¹ Response to DR-223, question 118; attachment “DRU13344_Q118_Atch01_RE_ 2021 Utility Defensible Space Plan_Redacted.pdf.”

²⁵² Response to DR-223, question 118; attachment “DRU13344_Q118_Atch02_RE_ UDS 2022 supplemental project communication_Redacted.pdf.”

²⁵³ Response to DR-223, question 118; attachment “DRU13344_Q118_Atch03_RE_ UDS 2022 supplemental project communication (5)_Redacted.pdf,” “DRU13344_Q118_Atch08_RE_ UDS 2022 supplemental project communication (3)_Redacted.pdf,” “DRU13344_Q118_Atch07_RE_ Utility Defensible Space Konocti 1102 Request_Redacted.pdf,” “DRU13344_Q118_Atch06_RE_ UDS projects_Redacted.pdf,” “DRU13344_Q118_Atch05_RE_ UDS 2022 supplemental project_Redacted.pdf,” “DRU13344_Q118_Atch04_RE_ UDS 2022 supplemental project communication_Redacted.pdf.”

Statement 54

Statement: “PG&E will continue to utilize local project requests to complement work prioritized by WDRM and expert review. These local projects can identify areas in the HFTD areas where fuel conditions warrant mitigation otherwise undetected by the model.”²⁵⁴

Supporting Information and Analysis: PG&E provided an Excel file listing 44 local projects across 32 circuits in HFTD areas that were identified and submitted by PG&E’s regional vegetation management teams in 2022.²⁵⁵ PG&E stated that all requests were reviewed and accepted to be included in the 2022 UDS plan. These projects covered 64.22 miles and spanned 11 divisions.

Conclusion: PG&E provided information consistent with the completion of work identified in this statement.

Statement 55

Statement: “Complete utility defensible space work on a minimum of 7,000 poles in the HFTD, barring External Factors.”²⁵⁶

Supporting Information and Analysis: PG&E provided an Excel file listing completed 2022 UDS work in HFTD areas.²⁵⁷ The file indicates that PG&E completed some work on 7,168 poles in HFTD areas.²⁵⁸

Of the total number of poles in the file that received some type of utility defensible space work, 4,658 poles were assigned a “completed” status, 411 poles were assigned a “NWR” (no work required) status, and 2,099 poles were assigned a “PARTIAL – MODCLR” (partial pole clearance) status. For those poles with a partial status, the report indicates that nearly 48% were due to landowner refusal, 30% were due to debris being too large to clear, 14% were due to landowner-generated debris, 5% were due to safety concerns, and the remainder were due to miscellaneous issues, such as difficulties with access, slope, environmental protection, or erosion precaution concerns.

²⁵⁴ [PG&E’s 2022 WMP Update](#), p. 807

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=51912&shareable=true>, accessed June 10, 2024).

²⁵⁵ Response to DR-223, question 119; attachment “DRU13344_Q119_Atch01_2021 UDS Plan _7.9.21_Updated_Redacted.xlsx.”

²⁵⁶ [PG&E’s 2022 WMP Update](#), p. 808

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=51912&shareable=true>, accessed June 10, 2024).

²⁵⁷ Response to DR-223, question 120; attachment “DRU13344_Q120_Atch01_WMP Pole Submission 20221130 V3 (1)_Redacted.xlsx.”

²⁵⁸ Response to DR-223, question 120; attachment “DRU13344_Q120_Atch01_WMP Pole Submission 20221130 V3 (1)_Redacted.xlsx.”

The partial clearance status of 2,099 poles is inconsistent with the language used in PG&E's 2022 WMP Update target. PG&E failed to fully complete UDS work for 7,000 poles in HFTD areas.

Conclusion: PG&E did not provide information consistent with the completion of work identified in this statement.

Finding

PG&E did not provide information consistent with the completion of all work identified in Initiative 7.3.5.20: Additional Vegetation Management Practices Beyond Regulatory Requirements and Recommendations. PG&E must supply a corrective action response addressing the findings identified in statement 55 above.

A.21 Initiative 7.3.5.21: Vegetation Management Activities Post-Fire

The purpose of this initiative is that “Vegetation management (VM) activities during post-fire service restoration including, but not limited to: activities or protocols that differentiate post-fire VM from programs described in other WMP initiatives; supporting documentation for the tool and/or standard the utility used to assess the risk presented by vegetation post-fire; and how the utility includes fire-specific damage attributes into its assessment tool/standard.”²⁵⁹

Statement 56

Statement: “PG&E performs a hazard tree assessment of the burned area to determine whether trees pose a threat to electric assets and if they should be abated.”²⁶⁰

Supporting Information and Analysis: PG&E provided an Excel file with records of assessments and mitigation data for the following fires: Electra, Fork, Hoopa 1101 RX, Mosquito, Oak, Peter, Rainbow, Rancho, River, SRF Lightning Complex, Washburn, and Woods.²⁶¹ The file indicates that PG&E performed assessments of 9,049 trees in burned areas, of which 96% were recommended for removal, 2% recommended for trimming, and 2% identified as not needing work.

Conclusion: PG&E provided information consistent with the completion of work identified in this statement.

²⁵⁹ [Update Guidelines](#), attachment 2, p. 95.

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=51912&shareable=true>, accessed June 10, 2024).

²⁶⁰ [PG&E's 2022 WMP Update](#), p. 809

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=51912&shareable=true>, accessed June 10, 2024).

²⁶¹ Response to DR-223, question 121; attachment “DRU13344_Q121_Atch01_VMDR-2820_2022WF_F1F2.xlsx.”

Statement 57

Statement: “PG&E plans to finalize the draft of the VM Wildfire Inspection Guidelines that were created in 2021.”²⁶²

Supporting Information and Analysis: PG&E provided a copy of its final draft of the Vegetation Management Post Wildfire Standard. The draft “describes the expectations, roles, and responsibilities of the Vegetation Management (VM) department to coordinate necessary actions and support Pacific Gas & Electric Company’s (PG&E) response and restoration efforts following wildfires.”²⁶³ PG&E stated that the final draft was completed by PG&E December 6, 2022. The copy of the draft provided to Energy Safety has a publication date of “XX/XX/2022.” Although Energy Safety could not confirm the exact date in 2022 of which the draft was published, the provided information indicates a publication date sometime in 2022.²⁶⁴ PG&E stated that the official version of the Vegetation Management Post Wildfire Standard was published in Q1, 2023 upon receipt of stakeholder feedback.²⁶⁵

Conclusion: PG&E provided information consistent with the completion of work identified in this statement.

Finding

PG&E provided information consistent with the completion of work identified in Initiative 7.3.5.21: Vegetation Management Activities Post-Fire.

²⁶² [PG&E’s 2022 WMP Update](#), p. 811

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=51912&shareable=true>, accessed June 10, 2024).

²⁶³ Response to DR-223, question 122; attachment “DRU13344_Q122_Atch01_TD-71XX_DRAFT_12062022_Redacted.pdf.”

²⁶⁴ Response to DR-223, question 122; attachment “DRU13344_Q122_Atch01_TD-71XX_DRAFT_12062022_Redacted.pdf.”

²⁶⁵ Response to DR-223, question 122; attachment “DRU13344_2022 SVM 7.3.5.21_DR_OEIS_D001.pdf,” p. 1.

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