PACIFIC GAS AND ELECTRIC COMPANY

ANNUAL REPORT ON COMPLIANCE R3 FOR 2023 WILDFIRE MITIGATION PLAN

August 6, 2026

Pacific Gas and Electric Company
Annual Report on Compliance R3 for 2023 Wildfire Mitigation Plan

Consistent with the Office of Energy Infrastructure Safety's (Energy Safety) *Compliance Guidelines* (Guidelines) issued on September 8, 2023, and California Public Utilities Code Section 8386.3(c)(1), Pacific Gas and Electric Company (PG&E) respectfully submits this Annual Report on Compliance (2023 Annual Report) Revision 3 (R3) for our 2023 Wildfire Mitigation Plan (WMP). Energy Safety approved our 2023-2025 WMP on December 29, 2023, and, on February 15, 2024, the California Public Utilities Commission (CPUC) ratified Energy Safety's approval.

I. EXECUTIVE SUMMARY

PG&E successfully delivered on our 2023 WMP, which benefited our customers and the communities that we serve. We implemented our WMP initiatives, achieved our stated objectives and goals, and reduced the wildfire risk in our service territory.

We are very proud of the mitigation work we accomplished in 2023. We had to start our work later than anticipated due to the repeated atmospheric rivers that occurred in the first quarter of the year. These atmospheric rivers severely affected our ability to begin work and impacted our financial plans. We experienced 75 storm days, far exceeding the five-year annual average of 40 storm days. Due to the amount of storm repair and restoration work, much of our planned activity was not able to start in the first quarter of the year. Yet, despite these adverse conditions, we were able to successfully execute our wildfire mitigation initiatives.

PG&E's 2023 WMP consists of initiatives[1] that include both targets and objectives. We structured our initiatives around three strategic goals: (1) reducing the potential for catastrophic wildfires; (2) reducing the potential for fires to spread; and (3) limiting the customer impact of Enhanced Powerline Safety Settings (EPSS) and Public Safety Power Shutoffs (PSPS) events. These goals purposefully align with our stand that catastrophic wildfires shall stop.

Throughout 2023, we worked to execute our WMP initiatives by creating new programs and implementing existing programs that reduce the risks and consequences of wildfires. As a result of these efforts, we were able to meet or exceed the targets and objectives for our 2023 WMP initiatives.[2] Our initiative target implementation results are described in detail in Sections II.1 (a) through (d) below.

[1] Please note that the total number of initiatives identified in PG&E's 2023-2025 WMP was 82. This larger number includes initiatives that did not have 2023 completion dates, such as: (1) 11 ten-year objectives; (2) seven three-year objectives with no compliance milestones in 2023; and (3) one target, VM-18, which is set to begin in 2024.

[2] As described below, there remains one initiative, GM-02 – High Fire Threat Districts (HFTD)/ High-Fire Risk Areas (HFRA) Open Tag Reduction – Transmission, that met its annual target but for which work is still in progress due to external factors. For more information on this initiative, please see Section II(d), as well as Attachment Table 3.

Highlights of our completed WMP commitments include:

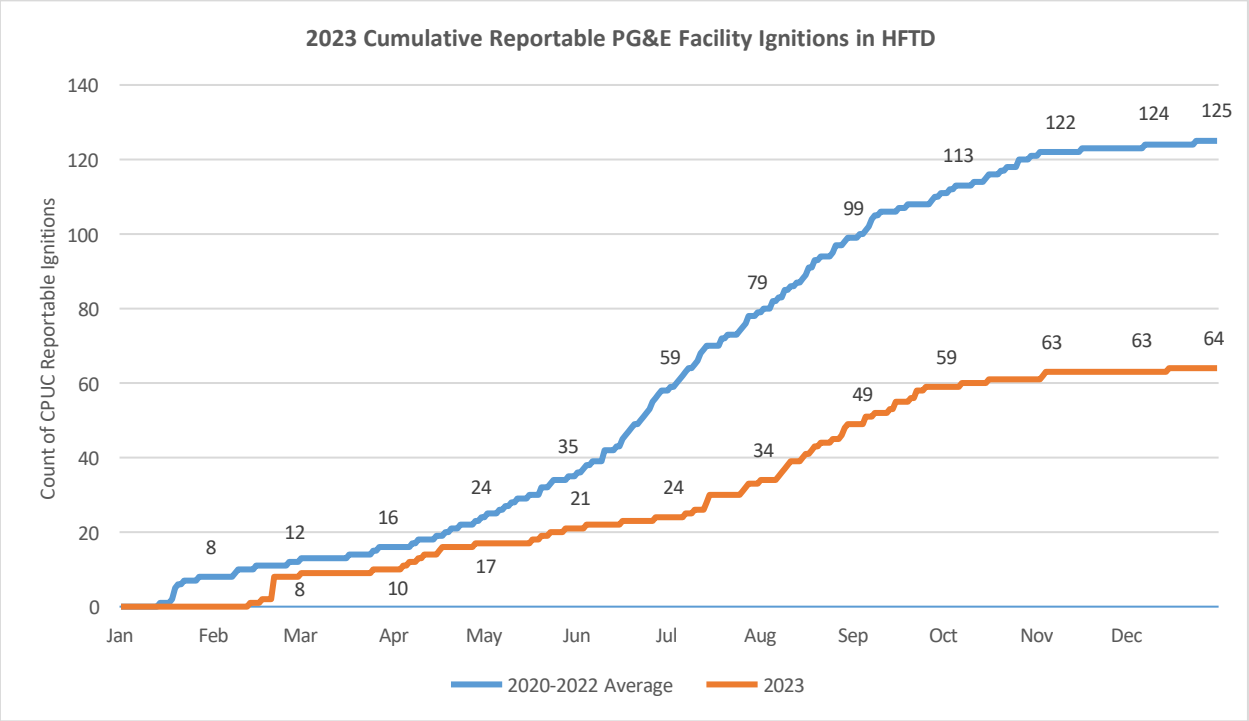
- Constructing and energizing more than 350 miles of underground powerlines;
- Completing more than 287,000 inspections on distribution, transmission, and substation assets;
- Closing more than 68,000 transmission and distribution tags;
- Providing more than 4,000 batteries to customers at risk of outages associated with Public Safety Power Shutoffs and Enhanced Powerline Safety Settings; and
- Enabling Artificial Intelligence (AI) to all 600-plus cameras in our service territory for early ignition detection.

By carrying out our 2023 WMP initiatives, we achieved our goals and significantly reduced wildfire risk. We are seeing the results of our efforts. While we understand that a decrease in reportable ignitions demonstrates correlation and not necessarily causation given the multitude of factors that go into an ignition, we believe it is important to highlight the significant progress made in this area. Thus, in 2023, we realized substantial wildfire ignition reductions compared to the historical averages from 2020 to 2022, including:

- A 48% reduction in CPUC-reportable ignitions in High Fire Threat Districts (HFTD);
- A 50% reduction in CPUC-reportable ignitions in High-Fire Risk Areas (HFRA);
- A 44% reduction in CPUC-reportable ignitions caused by PG&E equipment in Tier 2 and Tier 3 HFTD; and
- A 54% reduction in CPUC-reportable ignitions caused by vegetation contact in Tier 2 and Tier 3 HFTD.

Figure 1 below depicts the reduction in CPUC-reportable ignitions in HFTD areas in 2023, as compared to the three-year average from 2020 to 2022.

FIGURE 1: 2023 CPUC-REPORTABLE IGNITIONS IN HFTD AREAS COMPARED TO THE THREE-YEAR AVERAGE (2020-2022)



Several additional graphics, set out below, also help to highlight the reduction in ignitions that occurred in 2023 as compared to historical averages. For CPUC-reportable ignitions in HFTD areas, there was a substantial reduction in 2023 compared to the prior three years, as depicted in Figure 2, which shows the number of CPUC-reportable ignitions for each year since 2019.

FIGURE 2: CPUC-REPORTABLE HFTD AREA IGNITIONS BY YEAR

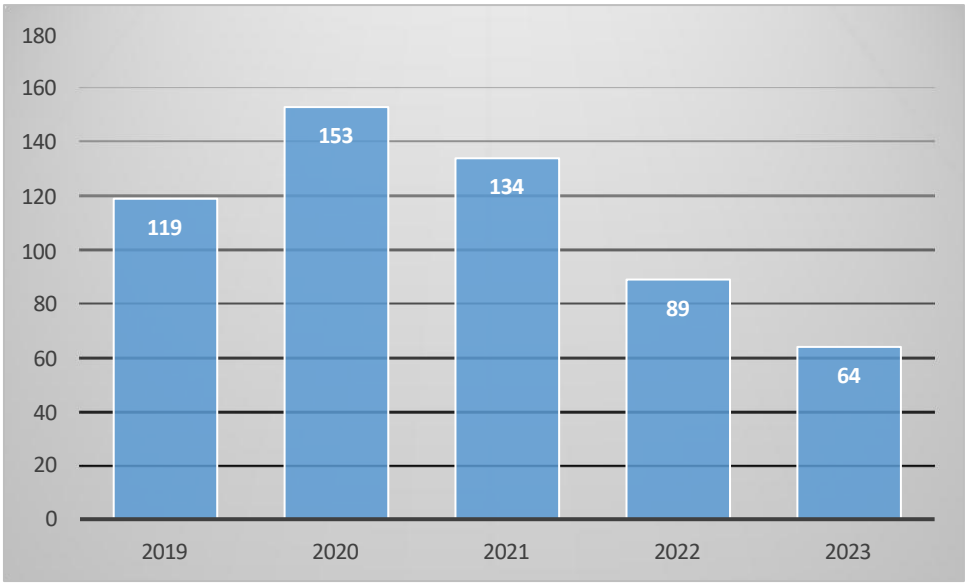


Figure 3 below shows that, in recent years, we maintained low levels of CPUC-reportable ignitions caused by our equipment in HFTD areas and were able to drastically decrease the number of ignitions as compared to the 2019 to 2021 period.

FIGURE 3: CPUC-REPORTABLE IGNITIONS CAUSED BY PG&E EQUIPMENT IN HFTD AREAS BY YEAR

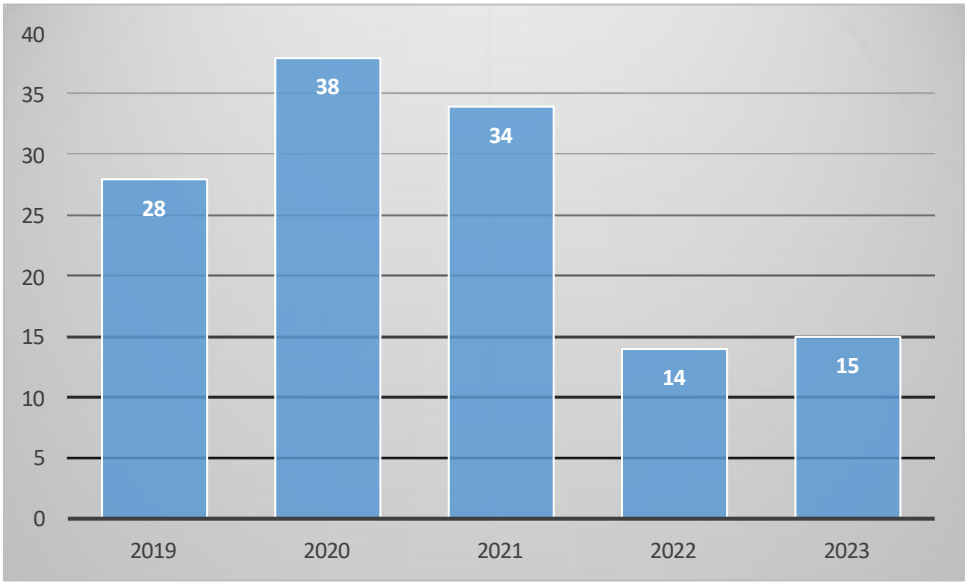
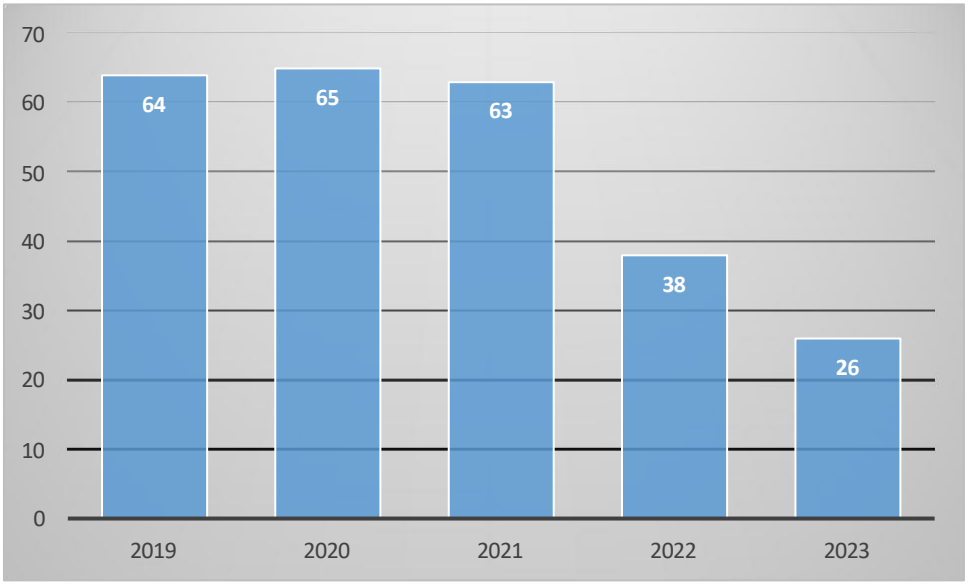


Figure 4 below depicts the significant reduction in CPUC-reportable ignitions caused vegetation contact in HFTD areas, with 2023 continuing our trend of improving in this area.

FIGURE 4: CPUC-REPORTABLE IGNITIONS CAUSED BY VEGETATION CONTACT IN HFTD AREAS BY YEAR



As we continue to deploy longer-term wildfire risk reduction initiatives, such as undergrounding, the reduction of ignitions experienced over recent years is largely attributable to the near-term operational mitigations, such as PSPS and EPSS, which have been deployed at a much quicker pace. While these operational mitigations provide the needed protection from potential ignitions during high-risk times, we know they come at a reliability cost for our customers. We continue to refine our deployment and support of these initiatives to mitigate the reliability impacts to our customers' experience. In 2023, the EPSS program had a target of not exceeding 210 minutes for an average outage. We experienced a Customer Average Interruption Duration Index (CAIDI) of 193 minutes including Major Event Days (MED), or just over three hours.[3] CAIDI represents the average duration of EPSS outages for all customer impacts. In addition, we leveraged information included in our 2022 EPSS Reliability Study to inform activities meant to improve reliability for customers experiencing outages on circuits protected by EPSS, including performing targeted vegetation management work and circuit sectionalization. Our customers experienced two PSPS events that resulted in de-energization in 2023. We also activated our Emergency Operations Center (EOC) for two additional potential PSPS events but, due to favorable weather conditions, we did not have to de-energize our customers for these events.

The reduction in wildfire risk that we were able to accomplish, as well as how we achieved our 2023 objectives and goals, are both described in more detail in Section II below.[4]

II. ELEMENTS TO BE INCLUDED IN THE ANNUAL REPORT ON COMPLIANCE

Pursuant to Energy Safety's 2023 *Compliance Guidelines*, we provide each of the required elements that must be included in an electrical corporation's Annual Report on Compliance below.[5]

1. A Written Narrative including:

a) A clear description of the electrical corporation's progress towards achieving the objectives for the three-year WMP plan cycle, as identified in its most recently approved WMP. Progress must be discussed individually for each stated objective.

As stated in our 2023-2025 base WMP, PG&E strives to reduce ignition risk through several strategies, which include operational mitigations and long-term resilience work,[6] while simultaneously minimizing customer impacts associated with these activities. To achieve this, PG&E established objectives in four distinct areas: (1) comprehensive monitoring and data

[3] The CAIDI Excluding MED metric was 183 minutes for 2023.

[4] The specific requirements of the *Compliance Guidelines* are in bold and italics.

[5] Energy Safety *Compliance Guidelines* (Sep. 8, 2023), pp. 8-11.

[6] PG&E 2023-2025 WMP R4, p. 71.

collection; (2) operational mitigations; (3) system resilience; and (4) community impacts. Each of these objectives is intended to work together to reduce wildfire risk and strengthen the resiliency of our electric distribution and transmission systems. Below is the progress made in these areas.

Comprehensive Monitoring and Data Collection Mitigations

PG&E's objectives in this area include plans to: (1) fill asset inventory data gaps; and (2) evaluate implementing a best practices control process. We worked towards filling in asset inventory data gaps by completing the field and record review proofs of concept and developing our approach for estimating installation dates. We made progress towards evaluating implementation of a best practices QA/QC process. Improvement opportunities, gaps identified in processes, cause analysis, and trends were provided across organizations to allow for collaborative implementation of best practices. We held sessions to: (1) develop improvement opportunities; (2) identify gaps in our processes; (3) address challenges; (4) perform root cause analyses; and (5) review trends. These activities provide insight into the current state of our electrical system and aid us in proactively identifying and addressing issues to reduce ignition risk.

Operational Mitigations

Our objectives in this area include plans to: (1) update our EPSS reliability study; and (2) stand up a pilot program called Focused Tree Inspection (FTI), which identifies the Areas of Concern (AOC) primarily focused on HFRA.

PG&E utilized information included in the 2022 EPSS Reliability Study and reliability impacts to customers experiencing eight or more outages while EPSS was enabled. This enabled us to execute targeted vegetation management work and circuit sectionalization to further reduce the impact of outages on EPSS enabled zones. We also optimized our existing Multiple Outage Review Evaluation (MORE) process in 2023 to create more targeted solutions on an individual outage basis. In many cases, this work resulted in adjusted EPSS device settings to improve coordination, the addition of fault indicators, line sensors, and targeted vegetation management work on many impacted zones. Regarding our FTI program, vegetation management (VM) exceeded the pilot program for Focus Tree Inspections with inspections of over 270 circuit miles. These inspections occurred in defined Areas of Concern (AOC) locations such as the North Coast Napa AOC, Sierra El Dorado AOC, North Valley Butte AOC, and the Central Valley Calaveras AOC. We made substantial progress in not only the development of AOC locations and piloting the FTI program, but also in the implementation of outage and ignition dashboards to aid in the evaluation of regional outage and ignition trends. Additionally, PG&E's FTI program will begin an inventory of trees by species and considerations. Other enhancements to the FTI program include updates to our VM inspection procedures and utilizing One VM. One VM is a singular platform that can host records from multiple PG&E systems of records and create new records to capture and maintain multi-year, historical tree data. These operational mitigations will assist us in managing current risk on the system while we focus on applying longer-term improvements to permanently reduce risk.

System Resilience Mitigations

Our system resilience mitigations include our 10,000-mile undergrounding and system hardening programs. Our objectives in this area included updating the covered conductor effectiveness calculation for consideration in future system hardening work plans.

For our 10,000-mile undergrounding program, we exceeded our target of 350 undergrounding miles by 3.7%. Progress made on system hardening programs include evaluation of the output of the Phase 1 and Phase 2 covered conductor effectiveness study and determination of the impacts of the study on the maintenance and inspections standards for deployed covered conductor assets. As a result, an update to technical document TD-2305M-JA02 (overhead inspections job aid) was made. These system hardening programs are designed to reduce risk in HFTD/HFRA locations by altering the way our current electric systems are constructed and operated to reduce, or nearly eliminate, ignition risk.

Community Impacts

Together with the mitigation programs that address risk drivers, we focused on reducing impacts to our customers being affected by EPSS and PSPS events. Our objectives in this area include enhancements made to EPSS settings. We made 720 protective device controllers/relays capable of Down Conductor Detection (DCD) settings. DCD technology improves PG&E's ability to detect and isolate high impedance faults, which are lower-current fault conditions that may not reliably be mitigated by EPSS. Additionally, we evaluated incorporation of approved Ignition Probability Weather (IPW) model enhancements into the PSPS distribution guidance to enhance the focus of PSPS events. For customers who have experienced at least five EPSS outages in 2022, or at least one PSPS event in 2021, the Portable Battery Program (PBP), through the California Foundation for Independent Living Centers (CFILC) for the Disability Disaster Access and Resource (DDAR) Program, delivered 4,700 portable batteries.

Both in-progress and completed three-year objectives are detailed below for the recently completed compliance period.

b) A clear description of the electrical corporation's progress towards achieving the three-year objectives listed in the tables in Section 8 of its WMP, including all subsections, with completion dates within the recently completed compliance period. Each objective must be discussed individually and, at a minimum, include the following:

i. A listing of the initiative(s) and associated tracking identification numbers the electrical corporation is implementing to achieve the objective.

ii. Reference(s) to the WMP section(s) or appendix, including page numbers, where the details of the objective are documented and substantiated.

iii. The completion date listed in the approved WMP.

iv. A summary of the electrical corporation's progress made during the most recently completed compliance period.

Tables 1.A to 1.F below outline the significant progress made to all our WMP objectives during the 2023 compliance period. Section 8 consists of our wildfire mitigations: (1) Grid Design, Operations, and Maintenance; (2) Vegetation Management and Inspections; (3) Situational Awareness and Forecasting; (4) Emergency Preparedness; and (5) Community Outreach and Engagement. Section 9 of the WMP contains Public Safety Power Shutoff (PSPS) objectives and is included below for completeness. We made notable progress on our objectives, and we are on track to complete our objectives by the listed completion date in the WMP.

Table 1.A – Progress Update of 3-Year Objectives for 8.1 Grid Design, Operations, and Maintenance

Applicable Initiative(s), Tracking ID(s) / Objective Name	2023-2025 WMP Section(s) / Page #	Completion Date[7]	Objective Description	Summary of Progress
GH-02 - Evaluate Covered Conductor Effectiveness	8.1.2.1 / p. 396	3/29/2024 (2023 data); 3/31/2025 (2024 data)	Update the covered conductor recorded effectiveness calculation using 2023 and 2024 outage data on the lines that have Covered Conductors for consideration in future system hardening workplans.	Work on this objective is progressing on schedule. In 2023, outage data was created and collected. This data will be used to update the covered conductor recorded effectiveness calculation.
AI-01 - Retainment of Inspectors and Internal Workforce Development	8.1.9.1 / p. 581	12/31/2025	Develop a plan to increase retention over time for trained and qualified inspectors. Develop a plan to focus on increasing and sustaining a consistent, year-over-year internal workforce that builds on existing experience and mentor new employees for asset inspections.	As part of this three-year objective, we continue to put in place a plan to increase retention of trained and qualified inspectors. In 2023, we filled 61 Inspector roles, demonstrating our commitment to increasing and sustaining year-over-year growth of our asset inspection workforce.
AI-11 - Filling Asset Inventory Data Gaps	8.1.5 / p. 515	12/31/2025	Populate missing age data in the Asset Registry (using "Installation Date" data element as a proxy) to 90 percent weighted average across risk prioritized distribution and transmission equipment.	In 2023, all planned work was timely completed, including completing the field and record review Proofs of Concept and developing our approach for estimating installation dates. Please note that, as described in PG&E 2023 Q4 QDR, the current WMP objective language

[7] Energy Safety *Compliance Guidelines* (September 2023), p. 9. See footnote 10 defining the completion date: "The date listed in the "Completion Date" column in the associated tables in Section 8 of the WMP, p. 9."

Applicable Initiative(s), Tracking ID(s) / Objective Name	2023-2025 WMP Section(s) / Page #	Completion Date[7]	Objective Description	Summary of Progress
				for the method of verification for AI-11 does not delineate a specific date to establish the baseline fill rate for the "installation date." PG&E established the baseline for this objective based on fill rates measured during the week of January 1, 2024.
GM-07 - Updates on EPSS Reliability Study	8.1.8.1.1 / p. 561	2/15/2024 for 2023 data; 2/15/2025 for 2024 data; 2/15/2026 for 2025 data	Provide annually an updated Enhanced Powerline Safety Settings (EPSS) reliability impact study per Areas for Continued Improvement (ACI) PG&E-22-32	PG&E timely delivered the 2023 EPSS Reliability Impact Study. PG&E leveraged the information included in the 2022 EPSS Reliability Study to inform activities meant to improve reliability for customers experiencing outages on circuits protected by EPSS. PG&E is evaluating operational mitigations executed in 2023 in combination with information in the 2022 and 2023 EPSS Reliability Study. The purpose of the study is to review reliability impacts and potential improvement in support of future mitigation work scoping and further reducing outage activity on EPSS-enabled zones.

Table 1.B – Progress Update of 3-Year Objectives for 8.2 Vegetation Management and Inspections

Applicable Initiative(s), Tracking ID(s) / Objective Name	2023 2025 WMP Section(s) / Page #	Completion Date	Objective Description	Summary of Progress
VM-09 - Constraint Resolution Procedural Guideline	8.2.6 / p. 705	12/31/2025	Develop a process of centralizing constraints resolution. As part of the build out of the centralized constraints team, three major categories will be addressed: customer constraints, environmental constraints (including internal PG&E procedures required to perform work) and permitting constraints (including both Land and Environmental permits). For each major constraint category build a process for addressing each constraint type, implement the new process, and create metrics to track each constraint type. Reporting will track total constraints by type and the time it takes to resolve a constraint after it has been identified. PG&E will consider creating a "right tree-right place" program, as part of the centralize Constraints Resolution process.	In 2023, PG&E developed standardized processes through a centralized constraints team for resolution of three categories: (1) customer constraints; (2) environmental constraints; and (3) permitting constraints. PG&E also created a "Right-Tree-Right Place" program to help centralize constraints.

Table 1.C – Progress Update of 3-Year Objectives for 8.3 Situational Awareness and Forecasting

Applicable Initiative(s), Tracking ID(s) / Objective Name	2023 2025 WMP Section(s) / Page #	Completion Date	Objective Description	Summary of Progress
SA-05 - Evaluate FPI and IPW Modeling enhancements in 2023 – 2025	8.3.6.2 / p. 773	12/31/2025	Evaluate enhancements to the FPI (Fire Potential Index) model and the IPW (Ignition Probability Weather) model in 2023. This involves testing new features and types of model configurations that could improve model skill. For example, one of the features that will be evaluated for IPW is covered conductor and EPSS on the system. If covered conductor, EPSS, or other model enhancements, do not improve model skill, it will not be deployed as a part of the model improvement. At present we do not know if model skill can be improved but we will attempt to do so in 2023. If model skill can be improved and is approved, we plan to operationalize the new models in 2024 and continue operations in 2025. We do not know if any new models developed will be approved for operations by PG&E's	In 2023, evaluation of enhancements to the Fire Potential Index (FPI), the Ignition Probability Weather (IPW), and the Outage Probability Weather (OPW) models was completed. After multiple rounds of testing, we consolidated a final OPW and IPW model solution that showed improved skill over our current operational version. If approved by leadership at the Wildfire Risk Governance Steering Committee (WRGSC), PG&E plans to operationalize these new models after approval in 2024 as these model enhancements have improved performance. PG&E also created whitepapers to document the methodology and final models.

Applicable Initiative(s), Tracking ID(s) / Objective Name	2023 2025 WMP Section(s) / Page #	Completion Date	Objective Description	Summary of Progress
			Wildfire Risk Governance Steering Committee (WRGSC).	
SA-07 - Monitor and evaluate the Cameras AI system's performance	8.3.2.3 / p. 737	12/31/2025	In partnership with Digital Path (the AI vendor that works with us and other agencies on the broader camera network) monitor and evaluate the AI system's performance. Explore additional features and inputs to further enhance the system. At present we do not know what these enhancements will be specifically, however we will look for opportunities to explore best practices and incorporate enhancements with the vendor.	In 2023, we defined and assessed HD camera AI detection capability expectations, location accuracy, alert notification timeliness, and quality of alerts. We engaged full deployment of HD Camera AI Fire Detection technology across all camera networks. Also, we monitored and evaluated the AI system's performance for areas of refinement. We have developed a roadmap for maturation with the vendor and continue to monitor and evaluate the AI system's performance for areas of refinement.
SA-09 - EFD and DFA Reporting	8.3.3.1 / p. 739	12/31/2025	Perform a feasibility study on the use of EFD/DFA technologies to successfully identify incipient failures as a supplement to field inspections. If feasible, complete a data driven proposal for integrating sensor findings into the inspection program.	In 2023, work on this objective commenced and remains on track. An analysis on sensor alert severity versus actual damage severity on existing deployments (including 2024 unit installs) began.

Table 1.D – Progress Update of 3-Year Objectives for 8.4 Emergency Preparedness

Applicable Initiative(s), Tracking ID(s) / Objective Name	2023 2025 WMP Section(s) / Page #	Completion Date	Objective Description	Summary of Progress
EP-01 - Complete PSPS and Wildfire Tabletop and Functional Exercises	8.4.2.3.1 / p. 821	12/31/2025	Complete PSPS and Wildfire Tabletop and Functional Exercise annually in compliance with the guiding principles of the Homeland Security Exercise Evaluation Program (HSEEP).	The 2023 functional exercise was completed in May and the tabletop exercise was completed in June. In 2023, an Integrated Preparedness Planning workshop was held, and an exercise and training schedule was developed for 2024. Additionally, the PSPS Full Scale Exercise Concept and Objectives meeting was held to begin development of the 2024 PSPS and Wildfire exercises.
EP-02 - Maintain All Hazards planning and preparedness program in 2023-2025	8.4.3.1 / p. 838	12/31/2025	Maintain the All-Hazards Planning and Preparedness Program to provide emergency response and safely and expeditiously restore service.	We met the annual commitment of maintaining the All-Hazards Planning and Preparedness Program by submitting the GO-166 annual compliance report to the CPUC.
EP-04 - Expand All Hazards planning to include additional threats and scenarios in 2023-2025	8.4.3.1 / p. 838	12/31/2025	Expand the All-Hazards planning program to include additional threats and scenarios.	This multi-year objective remains on track. In 2023, the Threats and Hazards Identification and Risk Assessment (THIRA) was completed along with the publication of the Extreme Weather and Physical Threat annexes to the PG&E Guidance Document Library.

Table 1.E – Progress Update of 3-Year Objectives for 8.5 Community Outreach and Engagement

Applicable Initiative(s), Tracking ID(s) / Objective Name	2023 2025 WMP Section(s) / Page #	Completion Date	Objective Description	Summary of Progress
CO-01 - Community Engagement – Meetings	8.5.2 / p. 885	9/30/2023; 9/30/2024; 9/30/2025	For 2023-2025, PG&E will hold annually a total of 22 community engagement meetings within the five regions of service that will include, but are not limited to, a mix of webinars, open houses, town halls, and/or answer centers.	In 2023, we held 22 wildfire community engagement meetings across the five regions of service by September 30, 2023.

Table 1.F – Progress Update of 3-Year Objectives for Section 9 Public Safety Power Shutoff[8]

Applicable Initiative(s), Tracking ID(s) / Objective Name	2023 2025 WMP Section(s) / Page #	Completion Date	Objective Description	Summary of Progress
PS-01 - Evaluate enhancements for the PSPS	9.1.2 / p. 906	12/31/2025	Evaluate enhancements for the PSPS Transmission guidance to enhance focus of PSPS events.	In 2023, we evaluated changes to the PSPS input models, which occurred since last season, and performed a sensitivity analysis.

[8] While the *Guidelines* did not specify including a progress update for Section 9 of our WMP, PG&E is including an update here.

Applicable Initiative(s), Tracking ID(s) / Objective Name	2023 2025 WMP Section(s) / Page #	Completion Date	Objective Description	Summary of Progress
Transmission guidance				New guidance was presented to the WRGSC on August 24, 2023.
PS-02 - Evaluate incorporation of approved IPW enhancements into the PSPS Distribution guidance	9.1.2 / p. 906	12/31/2025	Evaluate incorporation of approved IPW enhancements into the PSPS Distribution guidance to enhance focus of PSPS events.	In 2023, we evaluated changes to the PSPS distribution input models, which occurred since last season, and new guidance was presented to the WRGSC on October 5, 2023. After multiple rounds of testing, we consolidated on a final Ignition Probability Weather (IPW) model solution that showed improved skill over our current operational version. If approved by leadership and the WRGSC, PG&E plans to operationalize these new models in 2024.
PS-10 - Continue sharing PSPS lessons learned	9.1.2 / p. 906	12/31/2025	Continue sharing PSPS lessons learned and best practices with CA IOUs through monthly meetings focused on PSPS.	In 2023, we held monthly Joint Utility Public Safety Power Shutoff Working Group meetings to share PSPS lessons learned and best practices with CA IOUs. Each joint working group report was submitted to the CPUC and Energy Safety.
PS-11 - Pilot using drones for PSPS restoration	9.1.2 / p. 906	12/31/2024	Pilot using drones for PSPS restoration and/or damage assessment to improve PSPS outage restoration time.	In 2023, we participated in five PSPS functional exercise events and defined PSPS procedures in the Unmanned Aircraft System (UAS) Manual. Delivery of a final report to the WRGSC will occur by December 2024.

c) A detailed assessment of the electrical corporation's completion of the three-year objectives listed in the tables in Section 8 of its WMP, including all subsections, with completion dates within the most recently completed compliance period. Each stated objective must be discussed individually and, at a minimum, include the following information:

i. A listing of the initiatives and associated tracking identification numbers the electrical corporation is implementing to achieve the objective.

ii. Reference(s) to the WMP section(s) or appendix, including page numbers, where the details of the objective are documented and substantiated.

iii. The completion date listed in the approved WMP.

iv. The date the electrical corporation actually completed the objective.

v. An explanation of how the electrical corporation utilized the identified "Method of Verification" to assess the completion of the objective.

vi. A summary of the electrical corporation's assessment of progress towards completing the objective following use of the verification method identified in v above, including a listing of all evidence relied upon in the electrical corporation's assessment.

vii. For each objective that the electrical corporation failed to complete, a detailed explanation of what was incomplete, the reason the initiative was not completed, and associated corrective actions the electrical corporation has taken to prevent recurrence of such failures.

i. If the electrical corporation did not take corrective action to prevent recurrence of such failures, it must explain its justification for such inaction.

Tables 2.A and 2.B below summarize the successful completion of the three-year objectives in Section 8 of our WMP for the 2023 compliance period. All three-year objectives contained in Section 9 of our WMP remain in progress. In the 2023 compliance period, we completed a total of five three-year objectives ahead of the initially forecasted completion date that we listed in the WMP.

Table 2.A – Completion of 3-Year Objectives for 8.1 Grid Design, Operations, and Maintenance

Applicable Initiative(s), Tracking ID(s) / Objective Name	2023 2025 WMP Section(s) / Page #	Completion Date Listed in WMP	Actual Completion Date	Objective Description	Method of Verification Explanation (from the WMP)	Summary of Progress of completing objective following use of the verification method, including list of evidence relied upon
GH-03 - Evaluate and Implement Covered Conductor Effectiveness Impact on Inspections and Maintenance Standards	8.1.2.1 / p. 397	12/31/2023	12/15/2023	Evaluate the output of the Phase 1 and Phase 2 covered conductor effectiveness study to: (1) determine the impacts of the study on the maintenance and inspections standards for deployed covered conductor assets; and (2) update TD-2305M-JA02 (overhead inspections job aid), as needed.	Report outlining the impacts of the methodology and any proposed changes. Updated TD-2305M-JA02 document for inspections and maintenance to include references to covered conductor asset inspection and maintenance, as needed.	In 2023, an evaluation of the output of the Phase 1 and Phase 2 covered conductor effectiveness study occurred and a determination of the impacts of the study on the maintenance and inspections standards for deployed covered conductor assets was made. As a result, an update was made to technical document TD-2305M-JA02 (overhead inspections job aid). **List of evidence:** • Report presented to the WRGSC on December 21, 2023, outlining the impacts of the methodology and any proposed changes. • Updated TD-2305M-JA02 document for inspections and maintenance to include references to covered

Applicable Initiative(s), Tracking ID(s) / Objective Name	2023 2025 WMP Section(s) / Page #	Completion Date Listed in WMP	Actual Completion Date	Objective Description	Method of Verification Explanation (from the WMP)	Summary of Progress of completing objective following use of the verification method, including list of evidence relied upon
						conductor asset inspection and maintenance.
AI-03 - Develop Distribution Aerial Inspections program	8.1.3.2.7 / p. 488	12/31/2023	10/12/2023	Evaluate the continued use of aerial inspections for distribution overhead equipment.	Report summarizing the results of the 2023 Aerial Inspections.	In 2023, the continued use of aerial inspections for distribution overhead assets was evaluated. The program showed that the inspections could be completed at a larger scale than the previous year and that the aerial view of assets can provide a closer view of priority findings relative to a ground inspection. The report was presented to the WRGSC on October 12 and 16, 2023. **List of evidence:** • Report presented to WRGSC, on October 12 and 16, 2023, summarizing the results of the 2023 Aerial Inspections.

Table 2.B – Completion of 3-Year Objectives for 8.3 Situational Awareness and Forecasting

Applicable Initiative(s), Tracking ID(s) / Objective Name	2023 2025 WMP Section(s) / Page #	Completion Date Listed in WMP	Actual Completion Date	Objective Description	Method of Verification Explanation (from the WMP)	Summary of Progress of completing objective following use of the verification method, including list of evidence relied upon
SA-01 - Artificial Intelligence (AI) in Wildfire Cameras	8.3.2.3 / p. 737	6/30/2023	6/1/2023	Enable Artificial Intelligence processing of Wildfire Camera Data to provide automated wildfire notifications in the internal PG&E monitoring tool (Wildfire Incident Viewer).	Report from vendor outlining the deployment of the AI solution and incorporation of PG&E data feeds. Successful user testing for notification push to Wildlife Incident Viewer (WIV).	In 2023, we developed, tested, and implemented an Artificial Intelligence (AI) system that can detect and alert Hazard Awareness and Warning Center (HAWC) analysts of potential wildfires before they spread. This technology enhances the situational awareness of PG&E's analysts by integrating AI detection and alerting for wildfires into our internal awareness tool. In 2023 we fully integrated the AlertCalifornia AI detections into our awareness tool. The technology was pushed into live production on June 1, 2023. **List of evidence:** • Report from the vendor outlining the deployment of the AI solution and incorporation of PG&E data feeds. • Successful user testing for notification push to WIV.

Applicable Initiative(s), Tracking ID(s) / Objective Name	2023 2025 WMP Section(s) / Page #	Completion Date Listed in WMP	Actual Completion Date	Objective Description	Method of Verification Explanation (from the WMP)	Summary of Progress of completing objective following use of the verification method, including list of evidence relied upon
SA-03 - EFD and DFA Reporting	8.3.3.1 / p. 739	12/31/2023	11/16/2023	Develop scalable processes to: (a) analyze alarms and alerts from Early Fault Detection (EFD) and distribution fault anticipation (DFA) sensors; (b) conduct field investigation and reporting; (c) track identified mitigations to completion; and (d) track effectiveness of issue identification and remediation using EFD/DFA technologies.	a) Specification document – Analysis Methodology for identified EFD/DFA Use Cases b) Procedures detailing field processes for EFD/DFA field investigations c) Report for EFD/DFA Investigation Results and Remediations	In 2023, scalable processes for early fault detection (EFD) and distribution fault anticipation (DFA) analysis methodology were developed. EFD and DFA field investigation procedures were completed and submitted for publishing. Both EFD and DFA field procedures received approvals and a process was developed to track EFD/DFA investigations and remediations. **List of evidence:** • Completed Specification document – Analysis Methodology for identified EFD/DFA Use Cases. • Procedures documentation completed and submitted for publishing (for EFD, TD-2341P-01 EFD Field Investigation Procedures was published December 7, 2023, and for DFA, DFA, TD-3320P-40-F01 Installation Form for New DFA Device was published on March 2, 2023) detailing field processes for EFD/DFA field Investigations.

Applicable Initiative(s), Tracking ID(s) / Objective Name	2023 2025 WMP Section(s) / Page #	Completion Date Listed in WMP	Actual Completion Date	Objective Description	Method of Verification Explanation (from the WMP)	Summary of Progress of completing objective following use of the verification method, including list of evidence relied upon
						• Tracking Report for EFD/DFA Investigation Results and Remediations.
SA-04 - FPI and IPW Modeling – Revision Evaluation	8.3.6.3 / p. 773	12/31/2023	10/5/2023	Evaluate enhancements to the FPI model and the Ignition Probability Weather model. This involves testing new features and types of model configurations that could improve model skill. At present we do not know if model skills can be improved but we will attempt to do so.	Documentation that demonstrates evaluation of enhancements to the FPI model.	In 2023, evaluations of enhancements to the Fire Potential Index (FPI), the Ignition Probability Weather (IPW), and the Outage Probability Weather (OPW) models were completed. After multiple rounds of testing, we consolidated a final OPW and IPW model solution that showed improved skill over our current operational version. If approved by leadership and the WRGSC, PG&E plans to operationalize these new models in 2024 to improve performance. PG&E also created whitepapers to document the methodology and final models. **<u>List of evidence:</u>** • Documentation demonstrating evaluation of enhancements to the FPI model. Model skill evaluation may include (but is not limited to) AUROC (Area under the receiver operating characteristic curve).

Applicable Initiative(s), Tracking ID(s) / Objective Name	2023 2025 WMP Section(s) / Page #	Completion Date Listed in WMP	Actual Completion Date	Objective Description	Method of Verification Explanation (from the WMP)	Summary of Progress of completing objective following use of the verification method, including list of evidence relied upon
						• Summary highlighting work performed. • Report findings to WRGSC regarding the FPI and IPW model enhancements. • Documentation demonstrating evaluation of covered conductor use on the system.

d) ***An assessment of the electrical corporation's completion of all targets identified for each initiative listed in the tables in Section 8 of its WMP, including all subsections, with target completion dates within the most recently completed compliance period. The assessment of each target must be discussed individually and, at a minimum, include the following information:***

- ***i. A complete listing of all applicable targets.***
- ***ii. The target value and associated target units.***
- ***iii. The target completion date (i.e., year-end, Q2, Q3, etc.) listed in the WMP.***
- ***iv. The date the electrical corporation actually completed the target.***
- ***v. An explanation of how the electrical corporation utilized the identified "Method of Verification" to assess the completion of the target.***
- ***vi. A summary of the electrical corporation's assessment of completing the target following use of the verification method identified in v above, including a listing of all evidence relied upon in the electrical corporation's assessment.***
- ***vii. For each target that the electrical corporation failed to complete, a detailed explanation of what was incomplete, why, and associated corrective actions the electrical corporation has taken to prevent recurrence of such failures.***
    - ***i. If the electrical corporation did not take corrective action to prevent recurrence of such failures, it must explain its justification for such inaction.***
- ***viii. An explanation of whether the expected percentage risk reduction, as listed in the WMP, was achieved during the most recently completed compliance period.***
    - ***i. If the expected percentage risk reduction was not achieved, the electrical corporation must explain why and discuss any corrective actions it has taken as a result.***
    - ***ii. If the electrical corporation did not take corrective action, it must explain its justification for such inaction.***
- ***ix. An assessment of quality of implementation for initiatives that have a quality control/quality assurance component.***

Attachment Table 3 consists of our assessment of completion of all 42 WMP targets in the 2023 compliance period. Below, we discuss our assessment of quality of implementation for several of our WMP initiatives that have a Quality Assurance/Quality Control (QA/QC) component. Additionally, there are some targets that benefit from further narrative discussion.

Assessment of Quality of Implementation for Initiatives that Have QA/QC Component

PG&E has a QA/QC component that is performed on both its asset management inspection programs. The QA program (GM-01 Asset Inspections – Quality Assurance) is intended to ensure that the QC and Execution program (GM-09 Asset Inspections – Quality Control) is performing as intended through ongoing audits of completed QC locations. QA may also be leveraged to perform process audits in the future. In 2023, updates to existing QA procedures for systems inspections were completed. Additionally, in 2023, a new QC standard was developed. As outlined below, our QA/QC programs ensured that we not only met all targets, but we also exceeded all pass rate percentages.

GM-01 Asset Inspections – Quality Assurance - We surpassed the QA target for System Inspections: pass rate of 99.95% on 2,012 System Inspections Transmission audit locations; pass rate of 92.88% on 5,012 System Inspections Distribution audit locations.

GM-09 Asset Inspections – Quality Control - We surpassed the QC target for System Inspections: pass rate of 99.6% on 2,006 System Inspection Transmission field audit locations and pass rate of 99.2% on 20,988 System Inspection Transmission desktop audit locations; pass rate of 86.11% on 38,880 System Inspections Distribution field audit locations; pass rate of 93.7% on 186,140 System Inspections Distribution desktop audit locations.

Like our QA/QC on systems inspections mentioned above, VM's Quality Management System is designed to provide multiple layers of defense against hazards and failures. These layers of defense—Quality Control (QC), Quality Assurance (QA)—help build reliable, repeatable, and sustainable processes. QA (VM-08 Vegetation Management – Quality Assurance) ensures that the work completed by the QC and Execution teams meets our quality and compliance standards. QC (VM-22 Vegetation Management – Quality Control) ensures that completed inspections and tree work performed by VM Execution meet quality standards. Again, our VM QA/QC programs ensured that both targets and pass rate percentages exceeded our targets.

VM-08 Vegetation Management – Quality Assurance - We surpassed all targets for QA Vegetation Management: pass rate of 99.04% on 2,284 Vegetation Control (VC) pole clearing audit locations; pass rate of 99.75% on 4,285 Routine Distribution Vegetation Management audit locations; pass rate of 99.93% on 2,038 audit locations Routine Transmission Vegetation Management.

VM-22 Vegetation Management – Quality Control - We surpassed all target for QC Vegetation Management: pass rate of 86.1% on 10,791 VC pole clearing audit locations; pass rate of 85.7% on 80,877 Routine Distribution Vegetation Management audit locations; pass rate of 92.9% on 17,063 audit locations for Routine Transmission Vegetation Management.

As indicated above, of the 42 completed WMP targets listed in Attachment Table 3, additional narrative discussion is provided for some targets, and which are set out below.

GM-02 - HFTD/HFRA Open Tag Reduction – Transmission

We met our target for GM-02 in 2023. However, we will continue to resolve these tags in 2024 due to external factors that prevented us from being able to close some tags. Specifically, 762 of the 16,831 tags (4.5% of the total) were unable to be completed in 2023 due to these external factors.[9] These external factors included customer refusals, work clearance requirements, and other external issues that prevented us from safely executing the work as intended. We are committed to closing these tags in 2024 and created a workplan to address these 762 tags as efficiently and safely as possible. We will continue to provide Energy Safety updates on the progress of this work. The table below provides a breakdown of the five categories of external factors that prevented each of the 762 tags from being completed in 2023. As of March 26, 2024, 192 tags have been completed as we continue to work through the external factors that prevented their completion in 2023.

Tag Category	Notifications
Access	214
Customer	65
Operational	387
Other	4
Permit	92
Grand Total	**762**

Access Issues: Physical conditions not allowing structure access, flooding, unsafe weather, destroyed assets, etc.
Customer Issue: Customer refusal, landowner refusal, non-contacts, etc.; Third Party (TP) Refusal: TP refusal, TP restrictions, etc.
Operational Constraints: ISO clearance cancellation, R5, loading restrictions, material, safety stand downs; System Emergency: Wildfires, EOC activation for emergencies, etc.
Other reasonable circumstances: workers safety, etc.
Permits Required: Permit delays, permit restriction timeframes, etc.

GH-08 - Surge Arrestor Removals

We met target GH-08 in 2023 by replacing 663 non-exempt surge arresters where known grounding issues existed.[10] However, we note that in our 2023-2025 Base WMP we stated that

[9] Out of the 16,831 tags in this target, 16,069 were closed in 2023 and 762 were unable to be closed due to external factors. For additional information on external factors, please see PG&E 2023-2025 WMP R4 (Jan. 8, 2024) at 285-286 (describing how all targets and objectives may be subject to external factors limiting the ability to execute the work).

[10] Target GH-08 states: "Remove 663 non-exempt surge arrestors (based on the known population as of 01/12/2023) where known grounding issues exist. If no non-exempt surge arrestor is identified at a location during pre-field work, the unit will be resolved, and the notification will be canceled. Canceled notifications will count towards this target." PG&E 2023-2025 WMP R4, p. 333.

we expected to complete this program by the end of 2023.[11] While validating the total population of our surge arrestor installations for this program, 612 surge arrestors thought to be completed prior to 2023 were incorrectly identified as completed, as well as 145 additional surge arresters that need to be verified for completion in the field but are currently inaccessible due to external factors.[12] Together, this population of 757 surge arresters represents 2.5% of the 30,803 total number replaced to date as part of our WMP commitments (with a total of 35,614 units replaced as part of this program as a whole). The table below provides the annual WMP targets for this work, along with both the previously reported and updated numbers. Please note that this 757 total number includes 590 surge arresters that were not associated with work related to any WMP and, therefore, are not included in the table below. We are addressing this issue as expeditiously as possible and will provide Energy Safety with updates on our progress.

YEAR	TARGET	INITIALLY REPORTED PERFORMANCE	CONFIRMED PERFORMANCE AS OF 3/25/24
2020	8,850	10,263	10,221
2021	15,000	15,465	15,366
2022	4,590	4,621	4,595
2023	663	663	663
TOTAL	29,103	31,012	30,845

PS-06 - Provide 12,000 cumulative new or replacement portable batteries to PG&E customers at risk of PSPS or EPSS, focusing on but not limited to AFN, MBL, and self-identified vulnerable population

For 2023, PG&E met and exceeded the target for PS-06. However, PG&E would like to provide clarification around the battery eligibility criteria for this initiative, as we continue to offer this benefit to more of our customers.

The Portable Battery Program was implemented in 2020 and we continue to improve the program by modifying the eligibility criteria to assist as many customers as we possibly can who are frequently impacted by wildfire safety outages. In 2023, the eligibility criteria had some carryover of 2022 eligibility. This included all Medical Baseline (MBL) customers in Tiers 2 and 3 High Fire Threat District (HFTD) areas or had experienced at least two Public Safety Power Shut-off (PSPS) events since 2020. In 2023, the program eligibility criteria were expanded to customers who had experienced at least five EPSS outages in 2022 or at least one PSPS event in

[11] PG&E 2023-2025 WMP R4, p. 458 ("PG&E expects to complete the program by 2023, barring external factors such as access issues.").

[12] These external factors include, among other things, access issues and customer refusals.

2021. Additionally, for both Humboldt and Yuba counties that were served by Redwood Community Action Agency (RCAA) and Community Resource Project (CRP), the eligibility criteria was adjusted due to the smaller population of these areas to lower the number of EPSS outages experienced in 2022 from five to three, thereby increasing the number of customers eligible.

VM-17 Second Patrol – Distribution

Please note that the correct target number for VM-17 is 43,000 circuit miles and not 43,600 circuit miles. The 43,600 number was a typographical error that appears only in Table 7-3-2 of our 2023-2025 WMP.[13] However, the correct target number of 43,000 circuit miles was properly identified in: (1) Table 8-14 of our 2023-2025 WMP; (2) Table 8-15 of our 2023-2025 WMP; (3) Table RN-PG&E-23-06-01 of our Revision Notice response; (4) Table RN-PG&E-23-06-01 of our Revision Notice response; (5) Table 1 of PG&E 2023 Q3 QDR; and (6) Table 1 of PG&E 2023 Q4 QDR.[14]

GM-01 - Asset Inspections – Quality Assurance / GM-09 - Asset Inspection – Quality Control Description in PG&E 2023 Q4 QDR

Please note that in PG&E 2023 Q4 QDR the description for two targets, GM-01 and GM-09, was inadvertently transposed.[15] The correct description for GM-01 relates to QA and the correct description for GM-09 relates to QC. Please see WMP targets listed in Attachment Table 3.

Targets that Have Been Updated from PG&E 2023 Q4 QDR

Please note that, as part of our normal course of work, we want to highlight that the following eight targets have been updated since our filing of PG&E 2023 Q4 QDR as a result of either data validation, SAP transaction processing, and/or clerical work inputting data.

AI-07 - Detailed Ground Inspections – Distribution
The final annual value for this work was updated from 236,544 distribution ground inspections to 236,531 distribution ground inspections.

GH-04 - 10K Undergrounding
The final annual value for this work was updated from 363.8 circuit miles to 364 circuit miles.

GH-05 – System Hardening – Transmission

[13] PG&E 2023-2025 WMP R4, p. 344.

[14] *See*: (1) PG&E 2023-2025 WMP R4, p. 612; (2) PG&E 2023-2025 WMP R4, p. 616; (3) PG&E 2023 Revision Notice Response, p. 80; (4) PG&E 2023 Revision Notice Response, p. 82; (5) PG&E 2023 Q3 QDR, Table 1, Row 63; and (6) PG&E 2023 Q4 QDR, Table 1, Row 63.

[15] PG&E 2023 Q4 QDR, Table 1, Column G (Initiative Description), Row 31 for GM-01 and Row 35 for GM-09.

The final annual value for this work was updated from 56.4 circuit miles of transmission conductor on lines to 57.49 circuit miles transmission conductor on lines.

PS-06 - Portable Batteries Program
The final annual value for this work was updated from 4,715 batteries to 4,700 batteries.

PS-07 – Reduce PSPS Impacts to Customers
The final annual value for this work was updated from 15,672 customer events to 15,629 customer events.

VM-01 - LiDAR Data Collection – Transmission
The final annual value for this work was updated from 17,816.6 circuit miles to 17,741 circuit miles.

VM-03 - Focused Tree Inspection
The final annual value for this work was updated from 266.6 circuit miles to 273.78 circuit miles.

VM-15 - Integrated Vegetation Management – Transmission
The final annual value for this work was updated from 11,742 acres of inspection to 13,019 acres of inspection.

2. ***A complete listing of all change orders requested by the electrical corporation that were approved by Energy Safety. For each change order, the electrical corporation must include a description of the change requested, the date the electrical corporation requested the change order, and the date that Energy Safety approved the requested change order.***

No change orders were submitted for initiatives or targets in 2023.

3. ***A list that includes the following information for each WMP initiative identified in the WMP:***

a) ***Utility Initiative Tracking ID, per WMP Guidelines.***

b) ***Initiative name.***

c) ***Planned budget (as reported in the WMP or approved Change Order) for the compliance period.***

d) ***Actual expenditure for the most recently completed compliance period.***

e) ***If the difference between the actual expenditure and the planned budget is more than 10%, provide a detailed explanation of the reason or reasons for the discrepancy.***

In 2023, PG&E was able to complete its targets and objectives in line with the overall budget set for these specific commitments. In some cases, resources and funding were reallocated to adjust to the changing execution environment and address emerging priorities. For example, costs for some of the inspection programs saw increases in actual spend compared to budget due to inspection resources being allocated toward storm response in the first quarter of the year. Consequently, the time the inspectors had to complete their inspection plans before the start of fire season was compressed leading to higher overtime costs. While actual expenditures for any one target or objective may vary from its original budget, those changes were necessary in completing our stated goals and reducing wildfire risks.

Per the *Compliance Guidelines*, PG&E provides Attachment PG&E_2023-ARC_Table_4-Finance_R1. PG&E has provided actual expenditure and planned budget by Utility Initiative Tracking ID to the best of its ability. Utility Tracking IDs are tied to the targets and objectives that PG&E has outlined in its 2023-2025 WMP and are a subset of the total investments that PG&E has made to mitigate wildfires. For a full view of wildfire prevention and management investments please refer to PG&E 2023 Q4 QDR Table 11.

Furthermore, some targets and objectives have expenditures that are limited to Provider Cost Centers (PCCs), which are the costs associated with the departments or groups that provide services to the greater company. The cost of these services is allocated across multiple workstreams and are not directly charged to specific projects that can be aligned to a specific WMP initiative. For example, an engineering team may be responsible for evaluating and composing reports on different technologies for potential use across the company. One of the technologies they evaluate may contribute to an objective set forth in the WMP; however, the time that team spends on that specific evaluation, as opposed to all the other evaluations they conduct, is not tracked in a fashion that allows for an accurate accounting of expenditures aligned to this report.

III. CONCLUSION

As demonstrated above, PG&E implemented the 2023 wildfire mitigation initiatives described in the approved 2023-2025 Base WMP. We are proud of the work we performed in 2023 and the significant risk reduction we achieved throughout our service territory. We look forward to continuing to work with Energy Safety on this important issue and living our stand that catastrophic wildfires shall stop.