State of California – A Natural Resources Agency
Gavin Newsom, Governor

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Caroline Thomas Jacobs, Director

October 11, 2021

Patricia Poppe
77 Beale Street, Room 2341
San Francisco, CA 94105

Dear Ms. Poppe,

On June 29, 2020, the California Public Utilities Commission's (CPUC) Wildfire Safety Division (WSD) engaged Crowe LLP (Crowe) to conduct an independent audit of wildfire mitigation expenditures by the six investor-owned utilities (IOUs), who submitted 2019 and 2020 Wildfire Mitigation Plans (WMPs). WSD, along with all its functions, transitioned to the Office of Energy Infrastructure Safety (Energy Safety), a new department under the California Natural Resources Agency on July 1, 2021. Crowe recently completed its audit and Energy Safety is publicly releasing Crowe's final audit reports.

The purpose of Crowe's audit was to examine IOUs' spending in the execution of its WMP programs and initiatives relative to its prior General Rate Cases (GRCs). Crowe assessed the relationship between expenses and/or investments identified in the 2019 and 2020 WMPs and operating and capital expenditures approved in previous GRCs.

Enclosed is Crowe's Performance Audit of Pacific Gas & Electric Wildfire Mitigation Plan Expenditures Final Report. The report identifies eight findings and offers Crowe's recommendations regarding wildfire mitigation costs which may not be appropriate for cost recovery in future CPUC proceedings. Energy Safety may consider the final audit report in completing its annual report on compliance for the 2020 WMP. Energy Safety also provides this report to the CPUC for their review and consideration as the CPUC deems appropriate.

Sincerely,

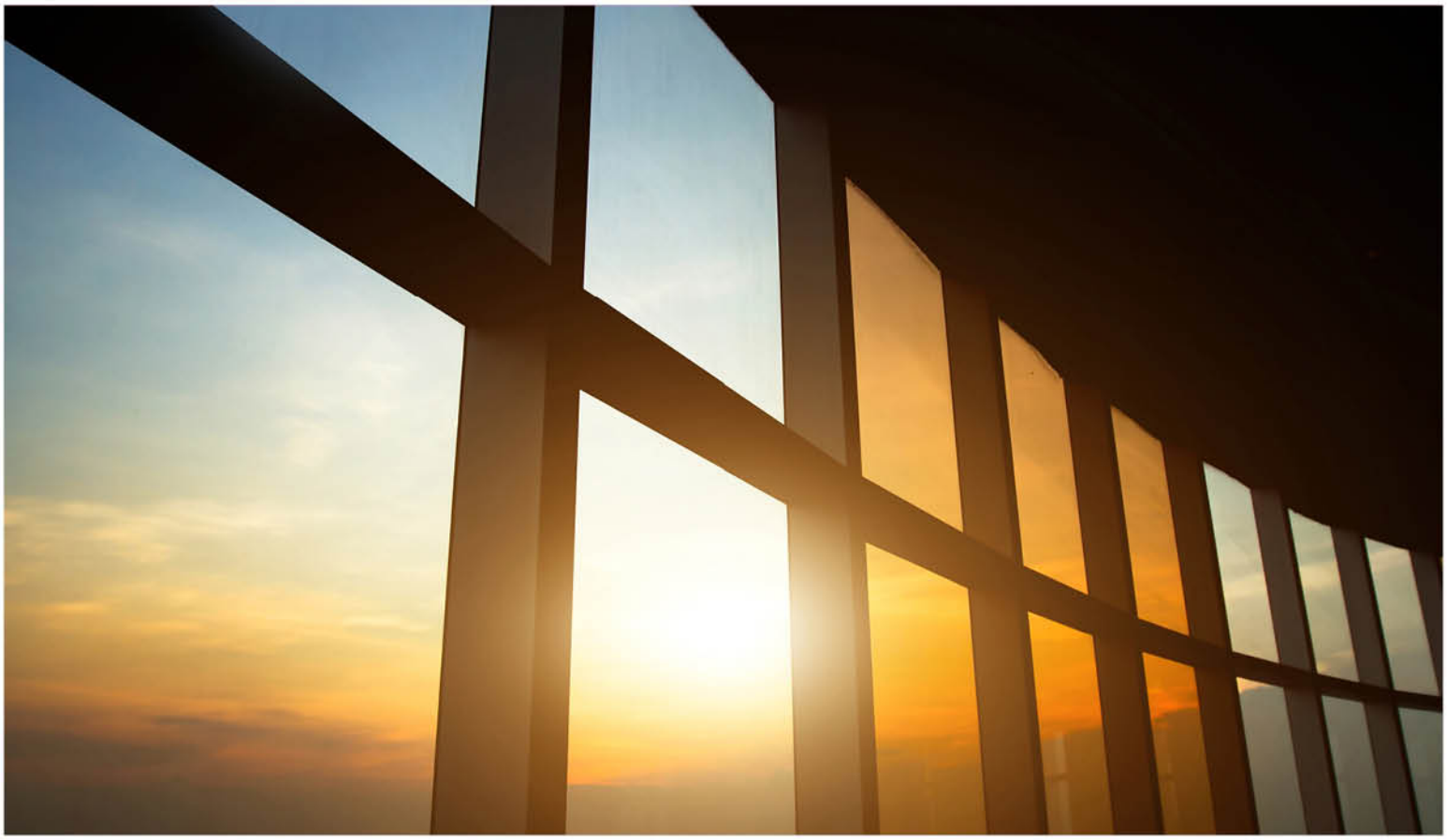
Caroline Thomas Jacobs
Director
Office of Energy Infrastructure Safety

Crowe

Smart decisions. Lasting value.™

Performance Audit of Pacific Gas & Electric Wildfire Mitigation Plan Expenditures
Final Report

September 15, 2021



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Independent Auditor's Report

Crowe has conducted a performance audit of Pacific Gas & Electric (PGE) for the period from January 1, 2017 through December 31, 2020 to determine whether PG&E complied with General Rate Case (GRC) rules and regulations and to determine whether any expenses and/or investments identified in the 2019 and 2020 WMPs are duplicative of operating and capital expenditures approved in previous GRCs.

We have conducted our performance audit in accordance with *Government Auditing Standards* issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our conclusion based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for the findings and conclusions based on our audit objectives.

Our audit was limited to the following three objectives**:**

- Determine whether actual expenditures to date, and documented future planned expenditures, comply with approved General Rate Case (GRC) funding, related to wildfire mitigation activities, in accordance with GRC rules and regulations.
- Determine whether operating or capital expenditures identified in PG&E's 2019 and 2020 Wildfire Mitigation Plans (WMPs) are duplicative of operating or capital expenditures approved in the 2017 GRC.
- Determine whether PG&E's actual expenditures to date, and documented future planned expenditures, comply with the 2019 and 2020 WMPs for activities that PG&E received approval and funding from GRCs or similar applications submitted to California Public Utilities Commission (CPUC) between 2017 and 2020.

Solely to assist us in planning and performing our performance audit, we obtained an understanding of the internal controls of PG&E to determine the audit procedures that are appropriate for the purpose of providing a conclusion on PG&E adherence to GRC rules and regulations and wildfire related accounting practices, as specified, but not for the purpose of expressing an opinion on the effectiveness of internal control. Accordingly, we do not express any assurance on the internal control.

The results of our tests indicated that, PG&E met objective 3 and did not meet objectives 1 and 2 for the period of January 1, 2017 through December 31, 2020 in all significant respects.

PG&E's written responses included to the Findings and Recommendations Section of this report were not subjected to the performance auditing procedures, accordingly, we express no conclusion on them.

Crowe LLP

San Francisco, California

Executive Summary

Crowe LLP (Crowe) conducted a performance audit of Pacific Gas & Electric (PG&E) in accordance with Generally Accepted Government Auditing Standards (GAGAS). In this section we provide background on the performance audit, an overview of the project background and scope, and a summary of Crowe's findings and recommendations related to this examination.

A. Project Background and Scope

B. Crowe Findings and Recommendations

C. Report Organization.

A. Project Background and Scope

The California Public Utilities Commission (CPUC) and its Wildfire Safety Division (WSD) (which is now the Office of Energy Infrastructure Safety (Energy Safety) within the California Natural Resources Agency[1]) engaged Crowe to conduct an independent performance audit, in accordance with Generally Accepted Government Auditing Standards (GAGAS), of PG&E, and submitted 2019 and 2020 Wildfire Mitigation Plans (WMPs). The CPUC and the WSD wanted to determine whether actual PG&E expenditures to date, and documented future planned expenditures, comply with approved General Rate Case (GRC) funding, related to wildfire mitigation activities, in accordance with GRC rules and regulations. They were also interested to determine whether any expenses and/or investments identified in the 2019 and 2020 WMPs are duplicative of operating and capital expenditures approved in previous GRCs.

The audit period covers electric line of business expenditures from January 1, 2017 through December 31, 2020 and includes PG&E's final and approved 2019 and 2020 WMPs and the most recent GRC application filed by PG&E that is final and approved, any applications or advice letter requests that the IOU has filed with the CPUC as necessary to meet the scope of work.

	Cost Data Presented in WMP		
Wildfire Mitigation Plan	2019	2020	Applicable GRCs Used in Crowe Analysis
2019 Plan	Estimated	N/A	2017 GRC
2020 Plan	Actual	Projected	2017, 2020 GRC

B. Crowe Findings and Recommendations

This performance audit resulted in eight (8) findings, totaling questioned costs of $59.8 million, which we summarize in **Exhibit ES-1**. In total we identify nearly $1.5B in future potential incrementality concerns for Energy Safety to consider. We provide a number of recommendations to address these findings.

C. Report Organization

The main body of this report includes the following components.

- **Section 1**
  In this section, immediately following the Executive Summary, we provide general information on the scope and objectives of this performance audit and contextual information about Pacific Gas &

[1] During the course of this engagement, the CPUC's Wildfire Safety Division transitioned into the Office of Energy Infrastructure Safety, a new department under the California Natural Resources Agency.

Electric.

- **Section 2**
  In this section, we outline our approach, including procedures and sampling methods applied.
- **Section 3**
  In this section, we provide our performance audit results, including our findings and recommendations.

Exhibit ES-1
Performance Audit Findings and Recommendations Summary

Description of Finding	Questioned Costs	Recommendation(s)
1. Overhead Costs in Wildfire Memorandum Accounts are Already Included in 2017 General Rate Case Approved Costs for 2017 to 2019	$13,240,000	• Do not compensate PG&E for overhead costs assigned to the wildfire memorandum accounts between 2018 and 2020 as they are not incremental.[2]
2. Straight Time Labor Costs in Wildfire Memorandum Accounts are Already Included in 2017 General Rate Case Approved Costs for 2017 to 2019	$10,660,000	• Do not compensate PG&E for its straight time labor costs assigned to the wildfire memorandum accounts between 2018 and 2020 as they are not incremental.
3. Three Capital Cost Areas Recorded in Wildfire Mitigation Memorandum Accounts Should Not be Considered Incremental Based on Their Similarity to 2017 GRC Funded Amounts	$35,912,300	• Do not compensate PG&E for these $35,912,300 in wildfire mitigation capital expenditures requested as part of the WMCE application and consider these costs as costs non-incremental costs incurred in excess of 2017 GRC adopted imputed amounts.
4. PG&E Identified $799 Million in Capital Costs in Excess of GRC Adopted Imputed Amounts for 2017 to 2020 Which PG&E Should Not Later Claim as Incremental Costs[3]	N/A[4]	• Do not consider these $799M in capital costs incremental given that PG&E coded them to planning orders that were to be completed as part of the 2017 GRC. These costs should not be later requested as incremental costs in future wildfire mitigation balancing accounts.
5. Incremental 2020 VM Costs Could not be Supported Because: 1) Several Sources Identify Different GRC Adopted VM Costs, and 2) Actual VM Costs Significantly Exceeded GRC Adopted VM Costs	N/A[5]	• PG&E should provide sufficient justification, documentation, and rationale as to why the $699M in 2020 VM costs should be considered incremental to the $548M in GRC adopted 2020 VM costs and thus captured in the VMBA.
6. Inconsistent Vegetation Management Cost Tracking Methods Pose Challenges for Tracking Incremental Routine	N/A	• PG&E should provide Energy Safety with the following: o Description of the differences between single large orders and site specific orders (by region) associated with 2020 VM costs

[2] For a definition of incrementality, refer to Section D on page 14.
[3] For purposes of comparing GRC adopted amounts to actual amounts for required RSAR reporting, PG&E takes GRC-approved costs which are approved at a high level (referred to as a functional level) and imputes or estimates lower level costs at the major work category (MWC) level. For a discussion of the imputation methodology, refer to Appendix A of PG&E's Spending Accountability Report, A.15-09-001.
[4] This is labeled "N/A" because PG&E has not yet requested these costs in a subsequent proceeding.
[5] Ibid.

Vegetation Management Costs		○ More granular presentation of routine tree trimming costs at the order level, by region and location
7. Wildfire Mitigation Cost Categories Provided in WMPs Do Not Align with How Wildfire Mitigation Costs are Categorized and Adopted as Part of GRCs, Making it Difficult to Monitor Incremental Wildfire Mitigation Costs	N/A	• As part of the WMP process, PG&E should provide wildfire mitigation separately for capital and for operating expenditures at the major work category (MWC) and maintenance activity type (MAT) account code levels for easier reconciliation to capital and operating costs adopted as part of the GRC process which are presented at the MWC and MAT code levels
8. Time Reporting Policies and Procedures Should be Improved, Particularly to Address Vegetation Management Time Reporting Controls and Oversight	N/A	• PG&E should enhance its documentation of time reporting policies and procedures, particularly as it relates to the vegetation management system. PG&E should include specifics regarding how account/work codes are set up and approved, how and when employees record time, how PG&E limits work order charges to only those PG&E employees working on a specific work order, and who reviews and approves this time to ensure that it is correctly coded. Additionally, we recommend that PG&E prepare a separate policies and procedures document for the vegetation management system, including how vendors access and are set up in the system, when vendors report time/charges, which work orders/codes are accessible to vendors, which PG&E employees are approved to review vendor time/charges, and how this vendor data interfaces with PG&E's accounting system and what controls are in place to ensure its reliability.
Total	$59,812,300[6]	

[6] This questioned cost total does not include the value of Findings 4 and 5 which total nearly $1.5B for which PG&E has not yet submitted a request for reimbursement in a proceeding.

Introduction

In this introduction section, we provide background on the performance audit of Pacific Gas & Electric (PG&E). We describe the PG&E wildfire mitigation program, recently applicable general rate case proceedings, and memorandum accounts. This introductory section also provides the scope of the audit and sampling methodology employed. The remainder of this section is organized as follows:

A. Project Background
B. Pacific Gas & Electric Wildfire Mitigation Program Profile
C. Pacific Gas & Electric General Rate Cases
D. Pacific Gas & Electric Memorandum Accounts
E. Performance Audit Scope.

A. Project Background

The CPUC and its WSD (now Energy Safety) engaged Crowe to conduct an independent performance audit, in accordance with Generally Accepted Government Auditing Standards (GAGAS), of PG&E, who is regulated by the CPUC and submitted 2019 and 2020 Wildfire Mitigation Plans (WMPs). The CPUC and WSD wanted to determine whether actual PG&E expenditures to date, and documented future planned expenditures, comply with approved General Rate Case (GRC) funding, related to wildfire mitigation activities, in accordance with GRC rules and regulations. They also were interested to determine whether any expenses and/or investments identified in the 2019 and 2020 WMPs are duplicative of operating and capital expenditures approved in previous GRCs.

The audit period covers electric line of business expenditures from January 1, 2017 through December 31, 2020 and includes PG&E's final and approved 2019 and 2020 WMPs and the most recent GRC application filed by PG&E that is final and approved, any applications or advice letter requests that the IOU has filed with the CPUC as necessary to meet the scope of work.

B. Pacific Gas & Electric Wildfire Program Profile

Senate Bill (SB) 901 required all California electric utilities to prepare plans on constructing, maintaining, and operating their electrical lines and equipment to minimize the risk of catastrophic wildfire. In its *Order Instituting Rulemaking to Implement Electric Utility Wildfire Mitigation Plans Pursuant to Senate Bill 901 (2018)*, Rulemaking (R.) 18-10-007 (Wildfire OIR), the CPUC WSD, now Energy Safety, outlined wildfire mitigation plan requirements.

1. 2019 PG&E Wildfire Mitigation Plan (referred to as the Wildfire Safety Plan)

On February 6, 2019, PG&E submitted its 2019 Amended Wildfire Safety Plan (referred to as the 2019 WMP). The 2019 WMP provides details on PG&E's comprehensive Community Wildfire Safety Program (CWSP) to prevent catastrophic wildfires. Programs included in PG&E's 2019 WMP included:

- *Vegetation management*, including expanded removal of trees and enhanced vegetation management in High Fire Threat District (HFTD) areas
- *Inspections*, including an expanded number of inspections of distribution poles, transmission structures, and substations; and corrective actions to remediate imminent risks
- *System hardening*, including replacing bare overhead conductors with covered conductors, replacing equipment with low fire risk equipment, upgrading/replacing transformers with more fire-resistant fluids, and installing more resilient poles to increase pole strength and fire resistance

- *Situational awareness*, including increasing knowledge of local weather and environmental conditions using weather stations and cameras, and developing fire spread model capabilities
- *Enhanced controls*, including adding Supervisory Control and Data Acquisition (SCADA) capabilities to allow for remote reclose blocking. This category also includes additional measures, such as strengthening personnel work procedures, deploying Safety and Infrastructure Protection Teams (SIPT) with fire-fighting capabilities, and operating heavy-lift helicopters for enhanced fire suppression and restoration efforts
- *Public Safety Power Shutoff (PSPS) support*, including initiating the program, expanding the program and evaluating criteria to reduce judgment, working with customers to alert them of impending PSPS events, and providing additional services and programs to support customers during the events.

The 2019 Wildfire Mitigation Plan (WMP) was filed in Q1 of 2019 with PG&E's financial forecast for each identified mitigation at the time of filing. The 2019 WMP also included PG&E's estimated 2019 capital and operating expenses required to support WMP efforts, with details as to the following:

- Whether the costs were currently reflected in the GRC revenue requirement (with Decision reference)
- Any aspects of the plan/strategy and associated funding that would be addressed in another case
- Any memorandum accounts where the costs of program/strategy were being tracked and explain how double tracking is prevented.

Exhibit 1 provides PG&E's estimates of 2019 WMP capital and operating costs provided in the 2019 WMP. Total estimated 2019 capital costs ranged from $880M to $1.42B and total estimated 2019 operating costs ranged from $807M to $891M.

Exhibit 1
Pacific Gas & Electric
Estimated 2019 Capital and Operating Costs Required to Support Wildfire Mitigation Programs (Source: Amended 2019 Wildfire Mitigation Plan)[7]

Program	2019 Capital Costs (Low)	2019 Capital Costs (High)	2019 Operating Costs (Low)	2019 Operating Costs (High)
4.0 Wildfire Safety Strategy and Programs	$ 500,000	$ 500,000	$ 8,000,000	$ 8,000,000
4.1 Operational Practices	8,300,000	8,300,000	14,700,000	14,700,000
4.2 Wildfire Safety Inspection Program (WSIP)	504,000,000	1,025,000,000	294,000,000	371,000,000
4.3 System Hardening	324,600,000	324,600,000	300,000	300,000
4.4 Enhanced Vegetation Management	-	-	430,200,000	433,200,000
4.5 Enhanced Situational Awareness	8,900,000	8,900,000	23,000,000	23,000,000
4.6 Public Safety Power Shutoff (PSPS) Program	15,800,000	15,800,000	16,500,000	16,500,000
4.7 Alternative Technologies	2,100,000	2,100,000	7,200,000	7,200,000
4.8 Post Incident Recovery, Restoration and Remediation Support	16,000,000	33,000,000	13,000,000	18,000,000
Total	$880,200,000	$1,418,200,000	$806,900,000	$891,900,000

[7] Source: Amended 2019 Wildfire Safety Plan, Errata to Attachment E: Cost Estimates for 2019 Plan Program.

2. 2020 Wildfire Mitigation Plan

On February 7, 2020, PG&E submitted its 2020 WMP. The 2020 WMP provided details on PG&E's comprehensive Community Wildlife Safety Program (CWSP), incorporated lessons learned from the 2019 wildfire season and outlined the additional programs planned from 2020 to 2022 to prevent catastrophic wildfires.

Exhibit 2 provides PG&E's estimates of combined WMP capital and operating costs, by program and activity, as provided in the 2020 WMP. Total estimated 2019 combined actual capital and operating costs were just over $1.0B and total targeted 2020 combined capital and operating costs equaled $1.33B.

Exhibit 2
Pacific Gas & Electric
Estimated Actual 2019 and Targeted 2020 Capital and Operating Costs Combined Required to Support Wildfire Mitigation Programs
(Source: 2020 Wildfire Mitigation Plan) [8]

Program	Activity	2019 Actual Capital and Operating Costs (Preliminary)	2020 Target Capital and Operating Costs
Situational Awareness and Forecasting	Weather Stations	$ 6,900,000	$ 8,100,000
	HD Cameras	2,100,000	3,500,000
Grid Design and System Hardening	System Hardening (Line Miles)	335,000,000	367,000,000
	System Hardening (Butte Co Underground Rebuild)	-	213,000,000
	Microgrids for PSPS Mitigation	3,300,000	11,000,000
	Distribution Sectionalization	50,000,000	83,000,000
Asset Management and Inspections	Transmission HFTD Enhanced Inspections	68,000,000	46,000,000
	Distribution HFTD Enhanced Inspections	160,000,000	88,000,000
	Substation HFTD Enhanced Inspections	22,000,000	16,000,000
Vegetation Management and Inspection	Enhanced Vegetation Management	443,000,000	495,000,000
Total		**$1,090,300,000**	**$1,330,600,000**

C. Pacific Gas & Electric General Rate Cases

Our scope of work required that we review whether PG&E expenditures to date, and documented future planned expenditures, comply with approved General Rate Case (GRC) funding, related to wildfire mitigation activities, in accordance with GRC rules and regulations. We reviewed the 2017 GRC which covered the 2017 to 2019 period. Below we provide an overview of GRC rules and regulations and background of each of the 2017 and 2020 GRCs.

[8] Source: 2020 Wildfire Safety Plan, Table PG&E 5-1: Major Investments and Implementation of Wildfire Mitigation – Initiatives Category.

1. General Rate Case Rules and Regulations

As specified on the CPUC website:

> *General rate cases (GRCs) are proceedings used to address the costs of operating and maintaining the utility system and the allocation of those costs among customer classes. For California's three large investor-owned utilities (IOUs), the GRCs are parsed into two phases. Phase I of a GRC determines the total amount the utility is authorized to collect, while Phase II determines the share of the cost each customer class is responsible and the rate schedules for each class. Each large electric utility files a GRC application every four years. For smaller utilities, authorized costs and allocation of costs are done in just one phase.*
>
> *The CPUC reviews detailed cost data for various areas of utility operations and approves a budget for the first year – called a test year – of the GRC cycle. For years 2, 3 and 4 – called post-test years – the GRC decision prescribes how to adjust the test year budget for inflation and other factors that may affect costs, such as additional capital projects between test years. The Commission has put in place regulatory mechanisms to adjust the costs approved in GRCs for unforeseen circumstances. For example, the Catastrophic Event Memorandum Account allows utilities to record costs for state emergencies declared by the governor.*

Primary rules related to the GRC related to PG&E rates/spending associated with the GRC are summarized in the GRC "Utility General Rate Case – A Manual for Regulatory Analysts," (Rate Manual) developed by the CPUC's Policy & Planning Division on November 13, 2017:

- GRCs establish revenue from customers to provide safe and reliable service at just and reasonable rates (costs).
- PUC Codes 451-4 and 728 hold the Commission responsible for ensuring that rates are just and reasonable.
- Major investor-owned utilities operating in California are required to file a GRC application with the Commission every 36 months (3 years).
- IOUs are required to submit a Risk Spending Accountability Report, in which the utility compares its GRC projected spending for approved risk mitigation projects with the actual spending on those projects, and explains any discrepancies.
- Cost of service regulation sometimes is referred to as rate of return regulation because in cost of service ratemaking utilities have an opportunity to earn authorized rate of return on prudently incurred capital investments. However, utilities are not guaranteed to earn their authorized return. Rates are set prospectively and an element of the authorized revenues is planned to repay investors for the use of their money. However, if the utility fails to manage its business efficiently and overspends, then it will likely fail to earn its authorized rate of return. This uncertainty is symmetrical, and if the utility spends less than authorized revenues it will earn greater than its authorized return.

Other notable aspects of the GRC process are identified below:

- The year in which the rate is set is referred to the "test year"
- The years between test years are referred to as "attrition years."
- Budgets within the GRC generally are based on a unit cost multiplied by a number of units.
- Budgets in the GRC are not reconciled later with actual results.
- At the time the GRC is approved, the unit costs in the GRC are not tied out to PG&E's costs of doing business (e.g., labor or overheads) as there are multiple other sources of funding (e.g., federal TO funds) which PG&E uses to cover its full revenue requirements
- Where unit costs evolve over time for a specific cost area, these unit costs are then adjusted through the ongoing GRC process during each test year.

2. 2017 PG&E General Rate Case

On September 1, 2015, PG&E filed its 2017 test year GRC for rates to become effective January 1, 2017 (A.15-09-001, 2017 GRC). In the 2017 GRC, PG&E requested an increase of 2.5 percent over 2016 revenues. PG&E also requested adjustments for the 2018 and 2019 attrition years. In Decision 17-05-13 (May 2017), the CPUC adopted a revenue requirement increase of 1.1 percent for 2017, and post-test year increases of 5.5 percent for 2018 and 4.3 percent for 2019. The 2017 GRC had the following proposed and adopted total revenue requirement for entire electric distribution line of business for 2017 to 2019:

Description	2017 Revenue Requirement	2018 Revenue Requirement	2019 Revenue Requirement
Electric Distribution LOB – Proposed (in Application)	$4,376,000	$4,652,000	$4,840,000
Electric Distribution LOB – Adopted[9]	$4,151,058	$4,401,048	$4,596,048
Electric Distribution LOB – Adopted, adjusted for D.17-07-005[10]	$4,151,058	$4,182,000	$4,364,000

This 2017 GRC process was completed over two years prior to the requirement for a WMP, which began in 2019.

3. 2020 PG&E General Rate Case

On December 13, 2018, PG&E filed its 2020 test year GRC for rates to become effective January 1, 2020 (A.18-12-009, 2020 GRC). In the 2020 GRC, PG&E requested an increase of 12.9 percent over 2019 revenues. PG&E also requested adjustments for the 2021 and 2022 attrition years. In Decision 21-12-005 (December 11, 2020), the CPUC adopted a revenue requirement increase for electric distribution of 10.2 percent for 2020, and post-test year increases of 3.50 percent for 2021 and 3.90 percent for 2022. The 2020 GRC had the following proposed and adopted total revenue requirement for entire electric distribution line of business for 2020 to 2022:

Description	2020 Revenue Requirement	2021Revenue Requirement	2022 Revenue Requirement
Electric Distribution LOB – Proposed (in Application)	$5,113,000	$5,440,000	$5,446,000
Electric Distribution LOB – Adopted[11]	$4,958,514	$5,169,295	$5,445,900

[9] Source: D.17-05-013, Appendix A, page 6.
[10] Source: A.18-12-009, Appendix A, page 6.
[11] Source: D.20-12-005, Appendix E, Table 1-A.

Over half (6.8 percent) of the 12.9 percent requested increase for the 2020 GRC was for wildfire prevention, risk reduction, and additional safety enhancements as part of the Community Wildlife Safety Program (CWSP). PG&E indicated that it proposes to spend approximately $5 billion in expense and capital from 2018 to 2022 on its expanded CWSP, which includes the following.

- Installing stronger and more resilient poles and covered power lines across 2,000 miles of high fire-risk areas
- Implementing SmartMeter™ technology to more quickly identify and respond to fallen power lines
- Increasing ongoing work to keep power lines clear of branches from an estimated 120 million trees with the potential to grow or fall into our overhead power lines
- Coordinating prevention and response efforts by monitoring wildfire risk in real-time from PG&E's Wildfire Safety Operations Center
- Expanding its network of weather stations to enhance weather forecasting and modeling. By 2022, PG&E will add 1,300 new weather stations in high fire-risk areas
- Installing nearly 600 new high-definition cameras in high fire-threat areas, increasing coverage across these areas to more than 90 percent.

PG&E forecasted expenditures of $2.835B in CWSP capital alone from 2020 to 2022.

D. Pacific Gas & Electric Memorandum Accounts

Utilities in California recover a large portion of their revenue requirement through balancing and memorandum accounts.[12] The Rate Manual indicates:

> *A balancing account is an account established to record certain authorized amounts for recovery through rates and to ensure that the revenue collected matches the authorized amounts. Balancing accounts usually accrue interest – to be additionally returned to ratepayers if the utility is over-collected, or to recover additional revenue if the utility is under-collected.*
>
> *Memorandum accounts are similar to balancing accounts except that they do not usually establish an authorized revenue requirement and are subject to further scrutiny by the CPUC. Upon Commission review expenses accrued in Memorandum accounts may or may not be recoverable through rates.*

Below are specific characteristics of a memorandum account:

- Requires approval from CPUC
- Approval is through an advice letter (AL)
- Captures costs with specific program needs (often unforeseen) and that are in excess of costs included in rates set through the GRC process
- Costs accounted for separately from GRC costs
- Typically, memorandum account costs incurred are subsequently "trued up" or recovered in the next GRC.

PG&E memorandum accounts applicable for this audit are shown in **Exhibit 3**.

[12] Source: GRC Manual, page 7.

Exhibit 3
Pacific Gas & Electric
Memorandum Accounts

PG&E Memorandum Account	Abbrev.	Date Established	Type	Reference	Purpose
Catastrophic Event Memorandum Account	CEMA	1991	Two-way	CPUC Resolution E-3238; PUC Code 454.9	Establishes three categories of costs that are eligible for inclusion in the CEMA: (1) restoring utility services to customers; (2) repairing, replacing, or restoring damaged facilities; (3) complying with governmental agency orders in connection with events declared disasters by competent state or federal authorities.
Fire Hazard Prevention Memorandum Account	FHPMA	8/20/2009	Two-way	AL-3523-E	Record costs related to the implementation of fire hazard prevention measures as adopted in D.09-08-029.
Fire Risk Mitigation Memorandum Account	FRMMA	1/1/2019	Two-way	AL 5419-E	Record incremental costs of fire risk mitigation work that is not otherwise recovered in the adopted revenue requirement; track costs before WMP finalized; remain open to track wildfire mitigation costs not included in an approved WMP. Such costs include expense and capital expenditures for: advanced system hardening and resiliency; expanded automation and protection; improved wildfire detection; enhanced event response capacity; and enhanced vegetation management activities.
Vegetation Management Balancing Account	VMBA	01/01/1999	One-way (undersp end credited to customer)	AL 5081-E	Record difference between vegetation management expense adopted in GRC of other base proceeding and recorded VM expense.
Wildfire Expense Memorandum Account (ongoing)	WEMA	6/21/2018	Two-way	D18.06.029	Track specific incremental wildfire liability costs. Use for ongoing fire-specific tracking. WEMA eligible costs include insurance, claims, legal costs, and costs of financing those amounts.
Wildfire Mitigation Plan Memorandum Account	WMPMA	6/5/2019	Two-way	AL 5555-E	Record, pursuant to Senate Bill (SB) 901 (Public Utilities Code Section 8386.4 (a)) and the Wildfire Mitigation Plan (also known as the Wildfire Safety Plan) approved by Energy Safety, incremental costs incurred to implement an approved WMP that are not otherwise recovered in PG&E's adopted revenue requirements. Established upon approval of the WMP. Such costs may include expense and capital expenditures for activities such as: operational practices, inspection programs, system hardening, enhanced vegetation management, enhanced situational awareness, public safety power shutoffs, and alternative technologies. Recovery of costs would occur through a GRC or future application at which time the CPUC would review costs for reasonableness.

Incrementality

- The basic idea of incrementality is that in order to recover any costs recorded in a memorandum account, those costs must be incremental, and not recovered in another way, such as in a GRC. For example, if PG&E had forecast certain wildfire-related costs in a GRC, resulting in those costs being included in rates, they would not be incremental, and PG&E could not record those same costs in a memorandum account and subsequently seek rate recovery. As further clarification, GRC's include forecasts for expenditures which could be a) authorized for recovery in rates through the GRC decision; b) authorized in the GRC to be collected (actual recorded costs) in a memorandum account, reviewed, and subsequently authorized for recovery in rates if deemed reasonable. Expenditures to be collected in a memorandum account are typically included in the GRC forecast.
- Commission ratemaking is done on a prospective basis. The Commission's practice is not to authorize increased utility rates to account for *previously* incurred expenses, unless, before the utility incurs those expenses, the Commission has authorized the utility to book those expenses into a memorandum account or balancing account for possible future recovery in rates.

E. Pacific Gas & Electric Accounting

PG&E uses an SAP AG accounting system. SAP is one of the world's largest supplier of accounting software. PG&E books entries in SAP as SAP dollars, which include certain overhead costs. In additional to the direct costs of an activity SAP dollars include indirect costs (e.g., for direct labor they include benefits and payroll taxes). PG&E's SAP system tracks PG&E costs by Major Work Category (MWC). PG&E account coding is profiled in **Exhibit 4** below:

Exhibit 4
Pacific Gas & Electric – Account Code Descriptions

Account Code	Description
Cost category	An SAP field that represents the classification of costs, such as base expense, non-earnings expense, capital, balancing account capital, and other balance sheet
Program	SAP data field to assign planning orders at a higher level which is relevant to each line of business (LOB). Programs include multiple MWCs and are often aligned with the GRC chapter structure.
Major work categories (MWC)	Basic unit of work activity PG&E uses for operational planning, budgeting, and managing purposes.[13] An SAP data field that represents a complete, distinct, sub-process of a Major Work Category (MWC). There are three characters for a maintenance activity type. The first two characters of the maintenance activity type represent the major work category. The third character designates the subcategory of work.
Maintenance activity type (MAT)	Codes at a lower level than MWC codes. MAT codes and are subordinate to MWC codes.
Planning order	Includes the plan/budget amounts. No actual costs can be charged to planning orders. Can be associated with one or more actual orders.
Order	Used to track and record actual costs for the process or job performed. Consists of all direct costs (labor and material) and indirect costs (overheads such as benefits and payroll taxes). Orders can only be linked to one planning order.
Master funding ID number	SAP attribute of a Funding ID which designates the rate case where costs are presented for recovery.
Funding ID number	SAP attribute which designates between base expenses, balancing account expenses and other types of expenses.
Balancing Acct Receiver Cost Center (RCC)	Identifies the balancing or memorandum account orders are associated with.

[13] Source: PG&E's 2017 GRC application, page 8.

F. Other Reports and Applications

In conducting our performance audit procedures, we relied on several additional PG&E reports and applications which are described below.

1. Wildfire Mitigation and Catastrophic Events Application

PG&E filed a Wildfire Mitigation and Catastrophic Events Application (WMCE) application to the WSD on September 30, 2020 (Application A.20-09-019). **Exhibit 5** summarizes the request to recover a total of $1,983,246 in operating and capital expenses which PG&E indicated that it recorded between 2017 and 2019, and were incremental to the amounts approved in the 2017 GRC and other proceedings.[14]

In conjunction with the WMCE request, PG&E engaged Ernst & Young to conduct an analysis of the WMCE application to determine whether PG&E's costs were properly recorded and reported in the WMCE application and incremental to costs previously authorized or requested for recovery. E&Y concluded that approximately $6.2M in costs were not properly evidenced for inclusion in the WMCE application (shown as an adjustment in Exhibit 5).

Exhibit 5
Pacific Gas & Electric
Wildfire Mitigation and Catastrophic Events (WMCE) Application
Request for Incremental Memorandum Account Compensation
Covering Rate Years 2017 to 2019
(Submitted to the WSD September 30, 2020)

Memorandum Account	Expense	Capital	Total
FHPMA	$ 295,037	$0	$ 295,037
FRMMA/WMPMA	722,063	591,969	1,341,031
CEMA	218,371	219,773	438,144
LCPIA	77	-	77
RRRMA	(3,738)	-	(3,738)
Total	$1,231,809	$811,742	$2,043,551
Adjustments			
- Insurance			(25,000)
- CEMA			(29,117)
- E&Y			(6,188)
Revised Request			$1,983,246
Revenue Requirement Request[15]			$1,280,657

[14] Note: Previously on February 7, 2020, PG&E filed an application (A.20-02-002) requesting authorization to recover, on an interim basis, $891 million of the costs reflected in the WMCE Application. The CPUC did not act upon this interim rate relief request. The WMCE application requested an additional $400 million that was not sought in the interim rate relief application.
[15] When translated to a revenue requirement, the amount is lower as capital expenses are depreciated.

2. Settlement Agreement (Wildfire Order Instituting Public Utilities Code Section 454.9(a). D.17-05-013. Investigation (I.19-06-015) ("Wildfire OII Decision")).

Decision 20-05-019 required PG&E not to seek recovery of certain wildfire-related expenditures totaling $1,650,000,000. Per the Decision, PG&E cannot seek recovery of an additional $198,000,000 over the next four years for a total of $1,848,000,000. Advice Letter 5842-E provided an update to PG&E recorded write-off amounts totaling $1,792,906,323, by account, as shown in **Exhibit 6**. These expenses are intended to be written off by PG&E and not be captured as incremental in a memorandum account for future rate recovery.

Exhibit 6
Pacific Gas & Electric
Wildfire OII Settlement Agreement
Status of Write off Amounts
(Source: Advice Letter 5842-E)

Description of Incremental Cost and Memorandum Account	Amount Written Off per Settlement Agreement	Amount Recorded as of 5/31/2020 (Write Off)
Distribution Safety Inspections Expense (excludes repairs) (FRZMMA/WMPMA)	$ 157,000,000	$ 188,342,587
Distribution Safety Repairs Expense (FRMMA/WMPMA)	79,000,000	70,223,985
Transmission Safety Inspections Expense (excludes repairs) (TO)	225,000,000	229,889,215
Transmission Safety Repairs Expense (TO)	205,000,000	358,276,122
AWRR Base Camp and Admin Expense (FHPMA)	36,000,000	35,649,371
2017 Northern California Wildfires CEMA Expense and Capital (for amounts associated with fires for which SED or CAL FIRE have alleged violations) (CEMA)	152,000,000	151,188,847
2018 Camp Fire CEMA Expense (CEMA)	435,000,000	472,228,358
2018 Camp Fire CEMA Capital for Restoration (CEMA)	253,000,000	258,721,237
2018 Camp CEMA Capital for Temporary Facilities	84,000,000	28,386,601
Subtotal	$1,626,000,000	$1,792,906,323
Additional amount (over 4 years)	198,000,000	
Total	$1,848,000,000	

3. Risk Spending Accountability Reports

PG&E is required to submit Risk Spending Accountability Reports (RSAR) on a quarterly basis. PG&E submits RSARs in order to comply with the Phase Two Decision Adopting Risk Spending Accountability Report Requirements and Safety Performance Metrics for Investor-Owned Utilities and Adopting a Safety Model Approach for Small and Multi-Jurisdictional Utilities (Decision (D.) 19-04-020). RSARs provide a comparison of budgeted to actual spending at the MWC and MAT level. PG&E includes explanations for budget to actual cost variances when they exceed a certain threshold.[16]

[16] The threshold variance for expenses is at least $10 million, or a percentage variance of at least 20 percent subject to a minimum variance of $5 million; for capital the threshold variance is at least $20 million, or a percentage variance of at least 20 percent subject to a minimum variance of $10 million; for units the threshold variance is at least 20 percent.

Performance Audit Approach

The CPUC and its WSD (now Energy Safety) engaged Crowe to conduct this independent Performance Audit, in accordance with the Generally Accepted Government Auditing Standards (GAGAS). In accordance with GAGAS, Crowe followed 2018 Government Audit Standards (GAO-18-568G) which require us to establish an overall approach to apply in planning and performing this audit to obtain sufficient, appropriate evidence that provides a reasonable basis for findings and conclusions based on audit objectives.[17]

Crowe developed our audit plan and procedures to meet specific Energy Safety objectives identified in the Request for Proposal for this project. In developing this audit plan, among other factors, we primarily considered the following:

- Understanding the CPUC GRC process and wildfire mitigation program, including other existing forms of PG&E oversight (e.g., GRC review processes)
- Addressing audit objectives specified by Energy Safety
- Reducing audit risk to acceptable levels
- Designing a methodology to obtain sufficient audit evidence to provide a reasonable basis for findings and conclusions
- Developing suitable criteria to use to evaluate performance as it related to audit objectives
- Determining the significance or relative importance of the matter
- Communicating results to those in charge with governance or management.

A. Performance Audit Procedures Applied

Our performance audit objectives and procedures are detailed in **Appendix A.** Crowe also reviewed the documents identified in **Appendix B**. Energy Safety had three (3) objectives for this performance audit:

1. Determine whether actual expenditures to date, and documented future planned expenditures, comply with approved General Rate Case (GRC) funding, related to wildfire mitigation activities, in accordance with GRC rules and regulations.
2. Determine whether operating or capital expenditures identified in PG&E's 2019 and 2020 Wildfire Mitigation Plans (WMPs) are duplicative of operating or capital expenditures approved in the 2017 GRC.
3. Determine whether PG&E's actual expenditures to date, and documented future planned expenditures, comply with the 2019 and 2020 WMPs for activities that PG&E received approval and funding from GRCs or similar applications submitted to the CPUC between 2017 and 2020.

We submitted a number of data requests to the company which were progressively more focused throughout the engagement as we obtained more detailed data and information on the company's wildfire mitigation accounting practices. We interviewed management to understand PG&E accounting systems and use of supporting information systems. We conducted an internal controls assessment, in particular to obtain an understanding of PG&E internal controls as it related to differentiating GRC-funded expenses from memorandum account funded expenses.[18] Finally, we also developed workpapers to document results of the performance audit.

[17] Section 8.01 of GAO-18-568G.
[18] Where internal control is a process effected by an entity's oversight body, management, and other personnel that provides

As a basis for conducting our procedures, for the population we obtained and relied upon a database of capital and operating expenditures by Major Work Category (MWC), Maintenance Activity Type (MAT), and order, for 2017, 2018, 2019 and year to date 2020 (through September 2020). To test the veracity of PG&E's cost database, we reconciled the cost data in this database to cost data used by PG&E in several published documents in the record, including the company's 10Q, GRC applications, WMPs, WMCE application, interim rate application, and CEMA application.

Below, we identify several additional clarifications related to the scope of this performance audit:

1. Our scope of work did not serve to validate the process and outcomes associated with the CPUC's GRC proceedings. Our scope was targeted to determining how PG&E spent funds approved in GRC's which provided funding for WMP programs.
2. PG&E presents costs in its GRC organized into generation, and electric and gas distribution lines of business (LOB). Our scope is targeted to the electric distribution LOB.
3. The timeframe for our audit spanned actual PG&E wildfire expenditures incurred between January 1, 2017 to December 31, 2020.
4. The audit did not cover PG&E's 2021 Wildfire Mitigation Plan which was published on February 5, 2021. Wildfire mitigation plan requirements and priorities have evolved significantly over the 2019 to 2021 planning period with guidance from the CPUC WSD, actual program results, and lessons learned.

B. Sampling Methodology

We developed our sampling methodology for the examination using guidance from the American Institute of Certified Public Accountants (AICPA). Specifically, we relied on Chapter 11 (Audit Sampling) of the AICPA's Government Auditing Standards and Single Audits – Audit Guide (hereafter referred to as the AICPA Audit Guide).

The AICPA Audit Guide's minimum sample level threshold for obtaining a high level of assurance for a higher risk of material non-compliance was 60 sampling units. We stratified the population into the expense and capital populations.

After obtaining a database of PG&E cost data at the order level, Crowe selected a random sample of 40 wildfire related transactions for operating expenditures and 40 for capital expenditures. The initial 80 selections yielded a significant number of transactions, approximately 25,000. Crowe felt that it was necessary to select a subset to more effectively and efficiently perform detailed testing. From this initial sample, Crowe selected a subset of 120 transaction (60 Operating and 60 Capital). Crowe conducted more targeted selection process to capture transactions across various categories.

Crowe requested invoices, timesheets, business cases and other relevant documentation to test whether expenditures were allowable wildfire related costs. The selection represented $101M in capital and $18M in operating activity reflective of 60 expense orders and 60 capital cost orders, over the 2017 to 2020 period for purposes of conducting detailed testing to determine whether:

- Costs were supported by appropriate documentation, such as approved purchase orders, receiving reports, vendor invoices, canceled checks, timesheets, overhead tables and records, and correctly charged to account, amount, and period.
- Transactions were for an allowable activity under PG&Es wildfire mitigation plan and memorandum account.
- Services were provided in the location or event identified by PG&E.
- Transactions were consistent with policies and procedures (internal procedures, contract agreement, etc.)

reasonable assurance that the objectives of an entity will be achieved (GAO-18-568, Fieldwork Standards for Performance Audits, Section 8.38c, page 164).

Following our selection, in some cases there were a large number of individual transactions within a selected order. We further randomly selected from these orders which increased the overall number of transactions in our sample to 143.

Performance Audit Results

Our performance audit resulted in eight (8) findings as presented in the remainder of this section. We have identified observations of controls and processes related to PG&E wildfire mitigation related expenditures. Each finding includes a recommendation to correct the issue, and is organized into the following six (6) components:

- *Condition* – includes the error observed based on facts revealed from the examination.
- *Criteria* – the basis for our evaluation; in this case a specific policy, procedure, or leading practice.
- *Cause* – the underlying reason for why the non-compliance or error occurred.
- *Effect* – the impact on the organization and/or the ratepayer from the error.
- *Recommendation* – a suggested action to correct the deficiency; or what can be done to address both the cause and condition.
- *Management Response* – an opportunity for the company to provide its response to the finding and/or recommendation.

Findings and recommendations from this performance audit are provided beginning on the next page. In **Exhibit 7** below we summarize each finding and related questioned costs.

Exhibit 7
Summary of Findings and Questioned Costs

Description of Finding	Questioned Costs	Failure to Meet Which of the 3 Audit Objectives
1. Overhead Costs in Wildfire Memorandum Accounts are Already Included in 2017 General Rate Case Approved Costs for 2017 to 2019	$13,240,000	2
2. Straight Time Labor Costs in Wildfire Memorandum Accounts are Already Included in 2017 General Rate Case Approved Costs for 2017 to 2019	$10,660,000	2
3. Three Capital Cost Areas Recorded in Wildfire Mitigation Memorandum Accounts Should Not be Considered Incremental Based on Their Similarity to 2017 GRC Funded Amounts	$35,912,300	2
4. PG&E Identified $799 Million in Capital Costs in Excess of GRC Adopted Imputed Amounts for 2017 to 2020 Which PG&E Should Not Later Claim as Incremental Costs	N/A	2
5. Incremental 2020 VM Costs Could not be Supported Because: 1) Several Sources Identify Different GRC Adopted VM Costs, and 2) Actual VM Costs Significantly Exceeded GRC Adopted VM Costs	N/A	2, 3
6. Inconsistent Vegetation Management Cost Tracking Methods Pose Challenges for Tracking Incremental Routine Vegetation Management Costs	N/A	2, 3
7. Wildfire Mitigation Cost Categories Provided in WMPs Do Not Align with How Wildfire Mitigation Costs are Categorized and Adopted as Part of GRCs, Making it Difficult to Monitor Incremental Wildfire Mitigation Costs	N/A	2, 3
8. Time Reporting Policies and Procedures Should be Improved, Particularly to Address Vegetation Management Time Reporting Controls and Oversight	N/A	2, 3
Total	$59,812,300	

Finding 1 - Overhead Costs in Wildfire Memorandum Accounts are Already Included in 2017 General Rate Case Approved Costs for 2017 to 2019

Significant Deficiency

Condition:
PG&E included overhead costs ("overheads") in its Fire Risk Mitigation Memorandum Account (FRMMA) and Wildfire Mitigation Plan Memorandum Account (WMPMA) between 2018 and 2020. These overheads also were covered in cost projections approved by the CPUC in the 2017 General Rate Case (2017 GRC) and are therefore not incremental. Overhead costs include operational management and support, fleet, material burden, building services, information technology (IT) devices and payroll taxes. PG&E would not have removed these costs in its 2017 GRC as the WMP was realized after the 2017 GRC.

Criteria:
The purpose of the Fire Risk Mitigation Memorandum Account (FRMMA) is to record, pursuant to Senate Bill (SB) 901 (Public Utilities Code Section 8386 (j)), incremental costs of fire risk mitigation work that is not otherwise recovered in PG&E's adopted revenue requirements. Such costs shall include, but are not limited to, expense and capital expenditures for: advanced system hardening and resiliency; expanded automation and protection; improved wildfire detection; enhanced event response capacity, and vegetation management activities. Costs recorded to the FRMMA will not include costs approved for recovery in PG&E General Rate Cases (GRCs) or recovered through PG&E's Catastrophic Event Memorandum Account (CEMA), Fire Hazard Prevention Memorandum Account (FHPMA) or other cost recovery mechanisms including the memorandum account approved as part of PG&E's annual Wildfire Mitigation Plan, as set forth in SB 901 (Public Utilities Code Section 8386 (e)).

The purpose of the Wildfire Mitigation Plan Memorandum Account (WMPMA) is to record, pursuant to Senate Bill (SB) 901 (Public Utilities Code Section 8386.4 (a)) and the Wildfire Mitigation Plan (also known as the Wildfire Safety Plan) approved by the Commission, incremental costs incurred to implement an approved wildfire mitigation plan that are not otherwise recovered in PG&E's adopted revenue requirements. Such costs may include expense and capital expenditures for activities including but not limited to: operational practices, inspection programs, system hardening, enhanced vegetation management, enhanced situational awareness, public safety power shutoffs, and alternative technologies. Costs recorded to the WMPMA will not include costs approved for recovery in PG&E General Rate Cases (GRCs) or recovered through PG&E's Catastrophic Event Memorandum Account (CEMA), Fire Hazard Prevention Memorandum Account (FHPMA), Fire Risk Mitigation Memorandum Account (FRMMA), or other cost recovery mechanisms

Cause:
PG&E's GRC forecast is activity-based. PG&E therefore does not represent the total cost of overheads for all work PG&E performs related to the GRC. The GRC includes the portion of PG&E's total costs that are associated with GRC activities. While PG&E may have envisioned recovering some of its overheads through other funding mechanisms, and thus reduced its 2017 GRC forecast to account for these other known sources, in 2017, PG&E would not have reduced its GRC forecast of overheads to account for wildfire mitigation activities as PG&E's WMP was not approved until 2019.

Effect:
Total overhead costs included in PG&E FRMMA and WMPMA accounts equaled $13.24M between January 1, 2018 and September 30, 2020. Examples of cost categories with overhead costs already captured in the approved GRC include:

- Benefits Overhead ($2,140,127)
- Building Service Overhead ($473,173)
- Capitalized A&G ($3,230,228)
- Fleet Overhead ($1,786,895)
- Minor Material Overhead ($2,051,024)

- Operating Mgt & Support – Electric ($2,670,900).

Recommendation:
PG&E should not be compensated for overhead costs assigned to the wildfire memorandum accounts between 2018 and 2020 as they are not incremental.

Management Response:
Crowe asserts that overheads and straight-time labor recorded to WMPMA and FRMMA are not incremental to the GRC as they were already contemplated in the GRC. In so doing, Crowe presumes straight-time and overhead costs are effectively fixed, identified and discretely recovered across PG&E's various cost recovery avenues. This is inaccurate. Due to its activity-based forecasting, PG&E does not discretely forecast specific cost categories or staffing levels, regardless of the makeup of that work. In addition, the wildfire costs PG&E is requesting in its applications are wholly new. As expressed in PG&E's testimony in its 2020 Wildfire Mitigation and Catastrophic Events (WMCE) filing:

> The wildfire … costs for which we seek recovery in this application were not included in PG&E's 2017 GRC forecast. The following section describes our activity-based methodology for forecasting and recording costs for recovery through rates, which is foundational to the incrementality of the activities for which we seek recover in this application.
>
> The recovery mechanism for a particular PG&E activity is determined by the activity scope. Activity-based forecasts create cost estimates, scopes, and schedules for work which are not tied to particular departments or staff. As an example, we forecast asset maintenance activities based on the anticipated volume and complexity of work that is required to safely maintain the system in compliance with established policies and requirements. At the time the forecast is created, the resources to execute the work are not specified. The maintenance work is either completed with internal PG&E employees or contracted vendors, and the forecasted cost does not include internal employee salaries. The resources to complete the work ultimately are assigned closer in time to the execution of the work.
>
> PG&E's forecasts typically present an aggregate cost for an activity without capturing the specific components of cost, labor, overheads, materials, etc. [including straight time]. PG&E's headcount and support functions are not captured by any particular recovery mechanism, such as the GRC. Moreover, PG&E's methodology for forecasting is not so granular that materials or distinct allocations are explicitly identified in the forecast.
>
> We use an activity-based forecast to ensure proper cost recovery through the appropriate mechanism. Our forecasts are not associated with specific employees or departments; instead they are based upon volumes of work, regardless of how the work is executed or by whom. Because PG&E staff and organizations often support work across multiple rate cases and regulatory accounts, this methodology provides flexibility to use internal and external resources as necessary to execute the work.[19]

Furthermore, overheads should be charged based on cost-causation principles. Cost drivers are defined by NARUC as "a measurable event or quantity which influences the level of costs incurred and which can be directly traced to the origin of the costs themselves." The activities performed within these accounts include cost drivers for the following overheads, and therefore these overheads should be charged to the accounts:

- Benefits Overheads

[19] See PG&E's 2020 WMCE Testimony, pp.8-3 to 8-4

- Building Service Overheads
- Capitalized A&G
- Fleet Overhead
- Minor Material Overhead
- Operating Mgt & Support – Electric

Disallowing these overheads has the potential to overburden other parts of the business and therefore could overburden certain customers over others

In addition, virtually none of the work done in FRMMA and WMPMA existed in 2015 when the 2017 GRC was filed from which the 2019 imputed GRC costs come. As explained in the 2020 WMCE:

> FRMMA and WMPMA: Following recent devastating wildfires in California, the Legislature passed SB 901, which called for utilities to create a Wildfire Mitigation Plan (WMP). PG&E submitted our 2019 WMP [Wildfire Mitigation Plan] to the CPUC as required in R. 18-10-007. Mitigation work performed pursuant to our 2019 WMP for which recovery is sought here was tracked in the FRMMA or WMPMA and the work generally occurred in 2019.
>
> As part of our 2019 WMP, we have instituted new programs, activities, and increased work volumes, which are incremental and not part of the GRC or any other rate case. The 2017 GRC, which covers 2017-2019, used 2014 recorded amounts as the "base year" and was filed in 2015 before we substantially reassessed our wildfire mitigation work in 2018.[20]

Therefore, all costs associated with this new work, straight-time labor, overheads, etc. should be considered part and parcel of the cost needed to perform the work, as PG&E further explained in its 2020 WMCE application:

Costs for each of the work categories included in this application are incremental to the amounts authorized by the 2017 GRC Decision on one of the following bases.

1) New Activities

> Wildfire events in 2017 and 2018, and legislation implemented in response to them, led us to implement new programs that were neither contemplated by nor part of our requests in the 2017 GRC.

2) Increased Work Volumes

> Developments in 2017 and 2018 led us to significantly expand programs that were originally included in the 2017 GRC Decision. For example, some programs saw a dramatic increase in units of work completed over adopted amounts. This application seeks recovery for only costs of the incremental work completed above and beyond what was specifically authorized in or imputed from the 2017 GRC Decision.[21]

The incrementality of these expenditures also was validated by an independent third- party auditor. PG&E retained Ernst & Young (E&Y) to audit its 2019 wildfire costs for incrementality. E&Y determined that PG&E's costs submitted in the 2020 WMCE for FRMMA/WMPMA were wholly incremental to PG&E's GRC costs. Further, the fact that PG&E substantially overspent its 2019 GRC adopted costs demonstrate, again, that all OH/ST included in the GRC had been spent. Indeed, as E&Y stated in the audit.

Based on our holistic analyses, the company appears to have overspent its 2019 imputed balance by approximately $2.2 billion. We noted within the RSAR data that of the approximately $2.2 billion in

[20] See PG&E's 2020 WMCE Testimony, p.8-7
[21] See PG&E's 2020 WMCE Testimony, pp.8-7 to 8-8

overspend, $1.6 billion is attributed to the Memorandum Accounts. Additionally, the Company appears to have overspent its GRC above and beyond the amount of the Memorandum Accounts by a total of approximately $600 million.[22]

Crowe Rebuttal

Crowe continues to support Finding #1 as presented. At a minimum, and as part of any future proceeding regarding recovery of incremental costs, PG&E should provide sufficient quantifiable analysis to substantiate that these straight time labor costs were not already recovered in authorized rates or other funding mechanisms for 2017 to 2019.

[22] See PG&E's 2020 WMCE Testimony, pp.8-AtchA-27

Finding 2 - Straight Time Labor Costs in Wildfire Memorandum Accounts are Already Included in 2017 General Rate Case Approved Costs for 2017 to 2019

Significant Deficiency

Condition:
PG&E included $10.66M of straight time labor costs in its Fire Risk Mitigation Memorandum Account (FRMMA) and Wildfire Mitigation Plan Memorandum Account (WMPMA) between 2018 and 2020. This straight time labor cost also was covered in cost projections approved by the CPUC in the 2017 General Rate Case (2017 GRC) and is therefore not incremental.

Criteria:
The purpose of the Fire Risk Mitigation Memorandum Account (FRMMA) is to record, pursuant to Senate Bill (SB) 901 (Public Utilities Code Section 8386 (j)), incremental costs of fire risk mitigation work that is not otherwise recovered in PG&E's adopted revenue requirements. Such costs shall include, but are not limited to, expense and capital expenditures for: advanced system hardening and resiliency; expanded automation and protection; improved wildfire detection; enhanced event response capacity, and vegetation management activities. Costs recorded to the FRMMA will not include costs approved for recovery in PG&E General Rate Cases (GRCs) or recovered through PG&E's Catastrophic Event Memorandum Account (CEMA), Fire Hazard Prevention Memorandum Account (FHPMA) or other cost recovery mechanisms including the memorandum account approved as part of PG&E's annual Wildfire Mitigation Plan, as set forth in SB 901 (Public Utilities Code Section 8386 (e)).

The purpose of the Wildfire Mitigation Plan Memorandum Account (WMPMA) is to record, pursuant to Senate Bill (SB) 901 (Public Utilities Code Section 8386.4 (a)) and the Wildfire Mitigation Plan (also known as the Wildfire Safety Plan) approved by the Commission, incremental costs incurred to implement an approved wildfire mitigation plan that are not otherwise recovered in PG&E's adopted revenue requirements. Such costs may include expense and capital expenditures for activities including but not limited to: operational practices, inspection programs, system hardening, enhanced vegetation management, enhanced situational awareness, public safety power shutoffs, and alternative technologies. Costs recorded to the WMPMA will not include costs approved for recovery in PG&E General Rate Cases (GRCs) or recovered through PG&E's Catastrophic Event Memorandum Account (CEMA), Fire Hazard Prevention Memorandum Account (FHPMA), Fire Risk Mitigation Memorandum Account (FRMMA), or other cost recovery mechanisms

Cause:
PG&E's GRC forecast is activity-based. PG&E therefore does not represent the total cost of straight time labor for all work PG&E performs as part of the GRC. The GRC includes the portion of PG&E's total costs that are associated with GRC activities. While PG&E may have envisioned recovering some of its straight time labor through other funding mechanisms, and thus reduced its 2017 GRC forecast to account for these other known sources, in 2017, PG&E would not have reduced its GRC forecast of straight time labor to account for wildfire mitigation activities as PG&E's WMP was not approved until 2019.

Effect:
Total straight time internal labor costs included in PG&E FRMMA and WMPMA accounts equaled $10.66M between January 1, 2018 and September 30, 2020. Examples of internal labor categories with straight time labor costs already captured in the adopted GRC include:

- Electric Activity Charge – Type A ($2,184,622)
- Estimating – internal ($3,916,284)
- Indirect labor – electric ($2,142,489)
- Paid time off ($1,281,446).

Recommendation:
PG&E should not be compensated for its straight time labor costs assigned to the wildfire memorandum accounts between 2018 and 2020 as they are not incremental.

Management Response:
Please see the response to Question 1 for PG&E's explanation of straight time labor costs being incremental.

Crowe Rebuttal
Crowe continues to support Finding #2 as presented. At a minimum, and as part of any future proceeding regarding recovery of incremental costs, PG&E should provide sufficient quantifiable analysis to substantiate that these overhead costs were not already recovered in authorized rates or other funding mechanisms for 2017 to 2019.

Finding 3 - Three Capital Cost Areas Recorded in Wildfire Mitigation Memorandum Accounts Should Not be Considered Incremental Costs Based on Their Similarity to 2017 GRC-Funded Amounts

Significant Deficiency

Condition:
We identified three capital cost areas, totaling $35,912,300, included in the database provided by PG&E to Crowe, which were coded to wildfire mitigation memorandum accounts where the costs should not be considered incremental as they were for general work areas that should have been completed as part of the 2017 GRC:

- MWC 59 – Install animal abatement (2019 through year to date 2020); $21,661,980 (coded to FRMMA). For context, we found the following:
  - The 2017 GRC projected animal abatement capital costs in MWC 08, but no actual amounts were recorded by PG&E into this MWC for 2017 through 2020. The 2017 GRC projected animal and bird guards in MWC 49, but no actual amounts were recorded by PG&E into this MWC for 2017 through 2020.
  - The 2017 GRC projected $6.3M of animal abatement capital costs for 2017 to 2019 in MWC 48 (based on completing 30 substations per year between 2017 and 2019 at $70,000 per substation). At the time the 2017 GRC was prepared, PG&E indicated that the need for animal abatement was decreasing as 1) over 120 had been mitigated and 2) engineering standards factor in new animal abatement measures. PG&E subsequently recorded $5.32M of actual animal abatement costs between 2017 and 2020 as funded by the 2017 GRC in MWC 48, $982,000 below the 2017 GRC projection. We could identify only 22 sites where PG&E conducted animal abatement substation work between 2017 and 2020 with estimated average costs of $241,000 per substation. This is well over the original $70,000 unit cost contemplated in the 2017 GRC.
  - In its WMCE application, PG&E indicated that PG&E performed incremental substation animal abatement work, which was captured in MWC 59. The WMCE identified that in 2019, 55 substations needed animal replacements, and upgrades were made at 19 sites, with the remaining 36 substations planned for 2020. The WMCE identified also that in 2019, 16 substation assets needed just-in-time replacements, and 4 were completed while 12 remained for 2020. Total animal abatement costs incurred in the WMCE for 2019 were $9.4M at an average cost of $411k per substation, more than six times the original 2017 GRC estimate.
  - The above data shows that PG&E underspent on its 2017 budget and fell well below its target completion of 30 animal abatement substation upgrades per year from 2017 to 2019 based on much higher unit cost per substation. PG&E then subsequently has requested incremental recovery of similar animal abatement work through the WMCE application at a significantly higher per unit cost.
- MWC 07 – Pole management/replacement (2019 through year to date 2020); $4,359,160 (coded to the FRMMA)
- MWC 49 – Fuse replacements, line sensors (2019 through year to date 2020); $9,891,160 (coded to FRMMA)

Cause:
As there is no retroactive true up of adopted GRC costs and the actual spend levels at the MWC level, PG&E was not obligated to complete these specific GRC funded wildfire mitigation efforts to the levels originally projected in the 2017 GRC.

Effect:
These capital costs categories are very similar to those capital cost categories adopted in the 2017 GRC and therefore should be treated like any other 2017 GRC cost “overrun”. Also due to the increased cost

per unit identified above for MWC 59 (animal abatement), there is a shifting of the much larger unit cost into the FRMMA for which PG&E is seeking incremental recovery for as part of the WMCE.

Recommendation:
PG&E should not be compensated for these $35,912,300 in wildfire mitigation capital expenditures requested as part of the WMCE application and consider these costs as costs non-incremental costs incurred in excess of 2017 GRC adopted imputed amounts.

Management Response:
The memorandum accounts referenced above function to provide a mechanism to address the unpredictable nature of the wildfires in California. These accounts are consistent with the cost recovery practices established by the California Public Utility Commission, as outlined below in the PG&E Advice Letter 5419-E approved by the CPUC's Energy Division. The letter states that:

1) FRMMA (wildfire memorandum account) will track costs incurred for fire risk reduction that are not otherwise covered in the utility's revenue requirement.

2) Public Utilities Code Section 8386 states: "Each electrical corporation shall establish a memorandum account to track costs incurred for fire risk mitigation that are not otherwise covered in the electrical corporation's revenue requirements."

The volume of costs contemplated in the 2017 GRC were forecast using available information and are unpredictable by nature. Not considering wildfire costs as incremental or "non-incremental" is contrary to utility cost recovery practices established by the California Public Utility Commission.

The costs under review in this audit are incremental because the activities are entirely new activities not included in prior GRCs. Demonstrative of this conclusion, the 2017 GRC (which covered 2017-2019) used 2014 recorded amounts as the "base year" and was filed in 2015, several years before PG&E substantially reassessed its wildfire mitigation work in 2018 to implement new programs like enhanced vegetation management (EVM) to respond to wildfire mitigation requirements under Senate Bill 901, enacted in September 2018.

Crowe identifies the following programs as potentially non-incremental because they are similarly named to prior-existing programs: (1) Animal Abatement, (2) Pole Management/Replacement, and (3) Fuse Replacements and Line Sensors. Although the programs are similarly named, they are substantially different or are driven by enhanced inspections, which is a wholly new program and mechanism for identifying work. Therefore, the programs are incremental.

The following table and bullet points below provide additional information explaining the incrementality of these programs as recorded in the FRMMA/WMPMA.

Scope of Work	MWC	MAT	Cost Recovery Mechanism	Incremental Work requirements
Substation animal abatement	48	48X	2017 GRC	N/A
	59	59F	FRMMA/WMPMA	Replacements resulting from enhanced inspections in tier 2 and tier 3 HFTDs, using an enhanced inspection checklist that focused on wildfire specific elements
Electric Distribution Pole	07	All	2017 GRC	N/A

Management	07	07D, 07O	FRMMA/WMPMA	Replacements resulting from enhanced inspections in tier 2 and tier 3 HFTDs, using an enhanced inspection checklist that focused on wildfire specific elements
Fuse replacements and line sensor	49	49I, 49C	2017 GRC	N/A
Non-exempt fuse replacement	2A	2AP	FRMMA/WMPMA	Replacement of existing primary line equipment such as fuses and cutouts with equipment that has been certified by CAL FIRE as low fire risk

- Animal Abatement – Wildfire memo account-eligible substation capital costs were booked to MAT code 59F. This work was completed after being tagged in connection with the enhanced inspection program, which is an incremental program to the 2017 GRC. That is, but for the enhanced inspection program inspections, the MAT code 59F animal abatement work would not have been identified or completed. In contrast, animal abatement work funded in MWC 48 through the 2017 GRC involves substations not in HFTDs, and involved only specific substation equipment types. The animal abatement tag work booked to MAT 59F involved multiple scopes of substation capital work not funded or completed in MWC 48:
  - Animal abatement
  - Other Capital Replacement (Insulators, battery, bushings, combustible stairs, breakers replacements)

  Animal abatement and replacement of the aforementioned equipment types has been determined to be an ignition threat at the substation.

  In addition, PG&E experienced higher than forecasted unit cost for this work primarily due to two driving factors (1) change in best practices/standards requiring custom design materials and (2) increased scope to encompass more asset types requiring abatement (i.e., switches)

- Pole Management/Replacement – This is work that also was completed after being tagged in connection with the enhanced inspection program, which is an incremental program to the 2017 GRC. That is, but for those inspections this pole management/replacement work would not have been identified or completed.

  This work refers to the identification and replacement of broken, damaged, or decayed distribution equipment, including conductors, connectors, crossarms, insulators, transformers, and poles. Because of the more aggressive wildfire mitigation measures included in our 2019 WMP, unit volume significantly increased over what was originally forecasted in the 2017 GRC for Tier 2 and Tier 3 HFTD areas causing PG&E to incur significantly more in capital expenditures for this work in 2019 in Tier 2 and Tier 3 HFTDs.

- Fuse Replacements – As stated in 2020 WMCE application testimony:

  Replacement of Non-Exempt Equipment refers to the replacement of existing primary line equipment such as fuses and cutouts with equipment that has been certified by CAL FIRE as low

> fire risk and therefore exempt from vegetation clearance. This replacement work eliminates overhead line equipment and devices that may generate exposed electrical arcs, sparks or hot material during their operation. In the 2017 GRC, PG&E forecasted a modest amount to do that routine work. In 2018, we significantly expanded the program to replace fuses.

The incrementality of these expenditures also was validated by an independent third- party auditor. PG&E retained Ernst & Young (E&Y) to audit its 2019 wildfire costs for incrementality. E&Y determined that PG&E's costs submitted in the 2020 WMCE for FRMMA/WMPMA were wholly incremental to PG&E's GRC costs. Further, the fact that PG&E substantially overspent its 2019 GRC adopted costs demonstrate, again, that all OH/ST included in the GRC had been spent. Indeed, as E&Y stated in the audit.

> Based on our holistic analyses, the company appears to have overspent its 2019 imputed balance by approximately $2.2 billion. We noted within the RSAR data that of the approximately $2.2 billion in overspend, $1.6 billion is attributed to the Memorandum Accounts. Additionally, the Company appears to have overspent its GRC above and beyond the amount of the Memorandum Accounts by a total of approximately $600 million.[23]

Crowe Rebuttal

Crowe continues to support Finding #3 as presented. At a minimum, and as part of any future proceeding regarding recovery of incremental costs, PG&E should provide sufficient quantifiable and detailed analysis to substantiate that these capital costs were not already intended to be funded in 2017 GRC authorized rates. This is to avoid a situation where 2017 GRC-funded capital amounts were significantly underspent (e.g., by not meeting the intended activity levels as presented in the case with substation animal abatement) and these costs were instead tracked in the incremental wildfire memorandum accounts (i.e., FRMMA/WMPMA).

[23] See PG&E's 2020 WMCE Testimony, pp.8-AtchA-27

Finding 4 - PG&E Identified $799 Million in Capital Costs in Excess of GRC Adopted Imputed Amounts for 2017 to 2020 Which PG&E Should Not Later Claim as Incremental Costs

Monitor - Potential for Significant Deficiency

Condition:
In the 2017 GRC, the CPUC adopted capital costs of $4.688B for the 2017 to 2019 period. In the supporting database provided by PG&E to Crowe, PG&E coded a total of $5.326B of capital costs for the 2017 to 2019 period as GRC-funded, $542M above the adopted 2017 GRC amount. **Exhibit C-10** in **Appendix C** summarizes this excess spending.

In the 2020 GRC, the CPUC adopted capital costs of $2.217B for 2020. In the supporting database provided by PG&E to Crowe, PG&E coded a total of $2.475B of capital costs for the 2017 to 2019 period as GRC-funded, $257M above the adopted 2020 GRC amount. **Exhibit D-2** in **Appendix D** summarizes this excess spending.

Criteria:
The purpose of the Wildfire Mitigation Plan Memorandum Account (WMPMA) is to record, pursuant to Senate Bill (SB) 901 (Public Utilities Code Section 8386.4 (a)) and the Wildfire Mitigation Plan (also known as the Wildfire Safety Plan) approved by the Commission, incremental costs incurred to implement an approved wildfire mitigation plan that are not otherwise recovered in PG&E's adopted revenue requirements. Such costs may include expense and capital expenditures for activities including but not limited to: operational practices, inspection programs, system hardening, enhanced vegetation management, enhanced situational awareness, public safety power shutoffs, and alternative technologies. Costs recorded to the WMPMA will not include costs approved for recovery in PG&E General Rate Cases (GRCs) or recovered through PG&E's Catastrophic Event Memorandum Account (CEMA), Fire Hazard Prevention Memorandum Account (FHPMA), Fire Risk Mitigation Memorandum Account (FRMMA), or other cost recovery mechanisms.

Cause:
PG&E capital costs exceeded adopted imputed 2017 GRC amounts in several areas, including for example:

- MWC 7 - Electric Distribution Install/Replace Overhead (OH) Poles, $344M above adopted imputed amount
- MWC 10 - Electric Distribution Work Requested by Others (WRO) General, $123M above adopted imputed amount
- MWC 17 - Electric Distribution Routine Emergency, $164M above adopted imputed amount
- MWC 59 - Electric Distribution Substation Emergency Replacements, $90M above adopted imputed amount
- MWC 2A - Electric Distribution Preventative Maintenance (EDPM) OH, $129M above adopted imputed amount

PG&E capital costs exceeded adopted imputed 2020 GRC amounts in several areas, including for example:

- MWC 7 - Electric Distribution Install/Replace Overhead (OH) Poles, $137M above adopted imputed amount
- MWC 17 - Electric Distribution Routine Emergency, $64M above adopted imputed amount
- MWC 49 - E Dist Reliability Circuit/Zone, $44M above adopted imputed amount.

Effect:
Given the similarity of these cost areas to those captured via the wildfire mitigation memorandum account, there is the potential for these costs to later be claimed as incremental in a subsequent proceeding.

Recommendation:
PG&E's $799M in capital costs should not be considered incremental given that PG&E coded them to planning orders that were to be completed as part of the 2017 GRC. These costs should not be later requested as incremental costs in future wildfire mitigation balancing accounts.

Management Response:
PG&E reads this condition to mean that PG&E should track all costs in a way to ensure they are recovered in the proper mechanism. PG&E does so by tracking costs in individual orders and planning orders. For any new activity, new orders are created and tagged with the appropriate recovery mechanism. In the case of wildfire costs, new orders were tagged with a Master Funding ID (MFID) of "Other" and Balancing Account Receiver Cost Center (BARCC) for FRMMA/WMPMA. Those are the orders that were requested for recovery in the 2020 WMCE. Costs booked to orders that were tagged with MFID of "GRC" are not being sought for cost recovery in the GRC. As stated in PG&E's 2020 WMCE testimony:

> To adhere to the activity-based forecasting methodology described above, and to ensure that Wildfire mitigation costs are properly accounted for, all costs for which we seek recovery in a cost recovery application are tracked in distinct orders that are tagged with identifiers different from those that are included in our GRC or other cost recovery mechanisms. This is applicable to all costs incurred, and, as such, all costs captured in these orders are incremental to other recovery mechanisms' revenues.
>
> All PG&E orders are linked to distinct regulatory filings. The costs and forecasts for activities associated with the GRC are only included in the GRC filing process, and, similarly, the costs and forecasts for activities associated with a specific memo account like FRMMA or WMPMA are only included in the filing process for that memo account. Because of this linkage, any forecasted or recorded cost is addressed through a single regulatory process. This distinct order-tracking methodology ensures that duplicative recovery is avoided.[24]

The 2020 WMCE testimony referenced above explains that PG&E's internal accounting system differentiates between WMCE and GRC costs, and GRC costs are not requested outside the GRC process. Additionally, as part of the GRC process, expenses over or underspent are typically not trued up; however, capital costs are trued up in the subsequent GRC filing.

To note, starting with the 2020 GRC, if any GRC costs for certain wildfire MWCs that overlap the WMPMA and FRMMA are below the imputed amounts, PG&E will reduce its recovery of incremental costs consistent with the methodology for ensuring incrementality (referred to as "filled the bucket") introduced in the 2023 GRC. These include costs that are not part of the WMBA recovery mechanism. A description of this method is included in PG&E's 2023 GRC testimony.

> To further confirm and demonstrate that PG&E is only seeking recovery of incremental costs recorded in the WMPMA and FRMMA, PG&E developed and implemented a methodology that ensures that 2020 GRC imputed adopted amounts are fully utilized. As explained below, it simply involves reducing PG&E's FRMMA and WMPMA cost-recovery request for certain activities (identified by MAT code) by the amount of any unspent GRC imputed adopted funds for those particular activities. PG&E refers to the methodology to determine incrementality as the "fill the bucket" methodology. PG&E believes this methodology provides a straightforward, quantifiable way to demonstrate that costs recorded to the FRMMA and WMPMA and requested here are incremental.[25]

Additionally, in the Exit Interview on August 26, 2021, Crowe expressed their understanding that the RSAR only includes GRC activity, and therefore, all the costs reviewed during the audit are GRC costs. That is an incorrect understanding. The RSAR reports all costs, including those recovered in the GRC and those tracked and recorded in other discovery mechanisms. Indeed, the 2020 RSAR states that it

[24] See PG&E's 2020 WMCE Testimony, p. 8-9
[25] See PG&E's 2021 GRC Testimony, p. 2-atchA-11

includes non-GRC costs from the FRMMA and WMPMA.[26]

The incrementality of these expenditures also was validated by an independent third- party auditor. PG&E retained Ernst & Young (E&Y) to audit its 2019 wildfire costs for incrementality. E&Y determined that PG&E's costs submitted in the 2020 WMCE for FRMMA/WMPMA were wholly incremental to PG&E's GRC costs. Further, the fact that PG&E substantially overspent its 2019 GRC adopted costs demonstrate, again, that all OH/ST included in the GRC had been spent. Indeed, as E&Y stated in the audit

> Based on our holistic analyses, the company appears to have overspent its 2019 imputed balance by approximately $2.2 billion. We noted within the RSAR data that of the approximately $2.2 billion in overspend, $1.6 billion is attributed to the Memorandum Accounts. Additionally, the Company appears to have overspent its GRC above and beyond the amount of the Memorandum Accounts by a total of approximately $600 million.[27]

Crowe Rebuttal

We appreciate that PG&E acknowledges that costs booked with MFID tagging of GRC will not later be sought for cost recovery in the GRC and the clarification of the newly adopted "fill the bucket" perspective introduced with the 2023 GRC.

[26] See PG&E's 2020 RSAR, p. 1-3 lines 10-14
[27] See PG&E's 2020 WMCE Testimony, pp.8-AtchA-27

Finding 5 - Incremental 2020 VM Costs Could not be Supported Because: 1) Several Sources Identify Different GRC Adopted VM Costs, and 2) Actual VM Costs Significantly Exceeded GRC Adopted VM Costs

Monitor – Potential for Significant Deficiency

Condition:
We found two areas of concern related to determining which 2020 Vegetation Management (VM) expenses are incremental and should be captured in the Vegetation Management Balancing Account (VMBA). These two areas are as follows:

1. Variation in PG&E's understanding of the total 2020 VM amount adopted by the CPUC as part of the 2020 General Rate Case (GRC). Depending on the source documents we reviewed, we found significant variability in this adopted 2020 VM cost.
2. PG&E's actual 2020 VM spend levels significantly exceeded the 2020 VM amounts adopted by the CPUC in the 2020 GRC.

Regarding Item #1 above, as shown in the table below, we identified four sources with four different figures representing total GRC adopted 2020 VM costs as follows:

A. $548M, identified in the Table 3-1 of the 2020 Risk Spending Accountability Report (2020 RSAR), submitted March 31, 2021
B. $607M, identified in several places within Exhibit 4 to the 2020 GRC (assumed to be the final CPUC approved amount)
C. $866M, identified in Table 3-3 of the 2020 RSAR
D. $1.236B, identified by PG&E in response to our data requests for this project.

The variation between the lowest and highest 2020 VM adopted figure is $688M ($1.236B less $548M).

Major Work Category (MWC)	MWC Description	Maint. Activity Type (MAT) Code	Program Description	2020 GRC Approved Costs			
				A. 2020 Imputed Adopted GRC Amount (Source: 2020 RSAR, Table 3-1) ($1,000s)	B. 2020 GRC Amount (Source: 2020 GRC; Exhibit 4 Table 1-6. Table 2A-10, Table 7-3, Table 7-5, Table 7-6) ($1,000s)	C. 2020 Imputed Adopted GRC Amount (Source: 2020 RSAR, Table 3-3) ($1,000s)	D. 2020 GRC Amount (Source: PG&E Response to Crowe Data Request) ($1,000s)
HN	E Dist Tree Trim Bal Acct		Routine Distribution	$548,012	$229,286	$548,012	$693,148
IG	Various Balancing and Memo Accounts	IGI	Tree Mortality	$0	$0	$0	$91,927
IG	Various Balancing and Memo Accounts	IGJ	Enhanced Vegetation Management	$0	$378,106	$318,742	$451,390
Total				**$548,012**	**$607,392**	**$866,754**	**$1,236,466**

PG&E did not provide an explanation for the differences between the different 2020 GRC adopted figures noted in the above table.

Regarding Item #2 above, we provide two sources of PG&E's actual reported 2020 VM costs in the table below. PG&E reported $1.279B of 2020 VM spend in the 2020 RSAR, and $1.247B of 2020 VM spend in the cost database furnished to Crowe for this project. Using the $1.247B cost figure for actual 2020 VM costs, and depending on which of the four adopted figures in the above table is used, PG&E's actual costs exceeded the GRC adopted amount by as little as $10M and as much as $699M.

Major Work Category (MWC)	MWC Description	Maint. Activity Type (MAT) Code	Program Description	Total Actual 2020 VM Costs (Source: 2020 RSAR, Table 3-3, pages 3-8 and 3-9 and Table 7-2, page 7-3) ($1,000s)	Total Actual 2020 VM Costs (Source: PG&E Response to Crowe Data Request ($1,000s)
HN	E Dist Tree Trim Bal Acct		Routine Distribution	$736,320	$707,984
IG	Various Balancing and Memo Accounts	IGI	Tree Mortality	$87,803	$87,973
IG	Various Balancing and Memo Accounts	IGJ	Enhanced Vegetation Management	$454,705[28]	$451,390
Total				**$1,278,828**	**$1,247,347**

Criteria:
PG&E is allowed to recover VM costs in excess of GRC adopted VM amounts in the VMBA. Consequently, actual VM costs and GRC adopted costs must be accurately determined and validated so there is no ambiguity as to which VM costs are incremental and can be recovered through the VMBA.

Specifically, as stated in Table 7-2 of the 2020 RSAR, the purpose of the VMBA is to record the difference between the actual Routine and Enhanced Vegetation Management (EVM) expenses and amounts adopted in PG&E's General Rate Case (GRC) or other base revenue proceeding.[29] The VMBA account is comprised of two subaccounts:

1. The Main Account tracks actual Routine and EVM expenses up to 120 percent of adopted amounts.[30]
2. The Reasonableness Review Subaccount tracks spending above the reasonableness threshold and actual tree mortality costs, for which there is currently no adopted amount. PG&E may file a separate application seeking approval of any costs in the Reasonableness Review Subaccount—where actual costs exceed 120 percent of the adopted amount. Upon approval, amounts will be transferred for recovery from customers.

[28] Note: in the 2020 RSAR, PG&E appears to have reported the $454,705M figure twice in both Line Number 99 and Line Number 100.

[29] The VMBA was created in compliance with D.00-02-046. In D.20-12-005, the Commission authorized PG&E to modify the VMBA to be a two-way balancing account, with a reasonableness review requirement for spending above 120 percent of adopted amounts (reasonableness threshold). In D.20-12-005, the Commission also required PG&E to track actual costs related to tree mortality work for which there is currently no adopted amount. PG&E may amend the VMBA to include additional Vegetation Management (VM) programs.

[30] Under collections in the Main Account will be determined through the Distribution Revenue Adjustment Mechanism (DRAM) in the Annual Electric True-Up (AET), or through another Tier 2 Advice Letter (AL) as authorized by the Commission. Overcollections will be returned to customers through a regularly scheduled AET or other rate change AL at the end of the rate case cycle or as otherwise authorized by the Commission.

Cause:
PG&E has identified several areas where VM costs increased beyond those originally contemplated in the 2020 GRC. These areas include:

- Unit cost increases, partially driven by SB 247 timing**.** The passage of Senate Bill (SB) 247 in October 2019 required all qualified line clearance tree trimmers to be paid no less than the prevailing wage rate for a first period apprentice electrical utility lineman as determined by the Director of Industrial Relations, which increased VM labor costs 49 percent starting in 2019.
- Significantly higher units completed than previous years (carryover of units from 2019 due to pause in routine VM work to complete the EVM mileage) paid on a Time and Materials (T&M) basis to complete the work.
- Cash basis to accrual transition.
- Bringing ~20k poles into compliance that previously had agreements with customers to maintain compliance. These locations were not being properly maintained by the customers and required T&M contracts beyond lump sum contracts.
- Restructuring of the safety personnel ratio to tree crews.

Effect:
The difference between the $1.247B in actual 2020 VM costs, reported by PG&E in the database furnished for this project, and the $548M of imputed adopted 2020 VM costs (identified in Table 3-1 of the 2020 RSAR) is $699M. This $699M figure represents a maximum amount of questioned costs related to this finding.

Without adequate verification as to 1) the amount and assumptions related to 2020 VM costs adopted in the 2020 GRC, and 2) whether PG&E's actual 2020 VM costs are incremental to the adopted 2020 VM baseline amounts, PG&E may recover excess 2020 VM costs in the VMBA. Further, without a focused review of the validity of the causes noted above for the increased 2020 VM costs, PG&E may recover excess VM costs in the VMBA. In either case, Energy Safety could approve incremental 2020 VM costs within the VMBA as opposed to treating these additional incurred costs as "overruns" to the 2020 VM GRC adopted values and thus as non-recoverable through the VMBA.

Recommendation
PG&E should provide sufficient justification, documentation, and rationale as to why the $699M in 2020 VM costs should be considered incremental to the $548M in GRC adopted 2020 VM costs and thus captured in the VMBA.

Management Response:
PG&E will be filing a 2021 WMCE application by year end which is the appropriate venue for the recovery of 2020 VM costs.

PG&E would like to clarify and correct 2020 Imputed Adopted amount for Vegetation Management, MWC HN. The CPUC's final decision[31], section 7.2.5.1, adopted $548.013 million to fund both the Routine and Enhanced VM programs. Note: imputed and adopted refer to the amount related to these programs included in the final GRC decision's revenue requirement, i.e., the amount already recovered in the GRC.

The following explains the discrepancies in the table provided above and copied below for reference:

[31] See: http://prccappiiswc002/Docs/GRC-2020-Phl/Final-Decisions/CPUC/2020/GRC-2020- Phl_Final-Dec_CPUC_20201203_D-20-12-005_633375.pdf

Major Work Category (MWC)	MWC Description	Maint. Activity Type (MAT) Code	Program Description	A. 2020 Imputed Adopted GRC Amount (Source: 2020 RSAR, Table 3-1) ($1,000s)	B. 2020 GRC Amount (Source: 2020 GRC; Exhibit 4 Table 1-6. Table 2A-10, Table 7-3, Table 7-5, Table 7-6) ($1,000s)	C. 2020 Imputed Adopted GRC Amount (Source: 2020 RSAR, Table 3-3) ($1,000s)	D. 2020 GRC Amount (Source: PG&E Response to Crowe Data Request) ($1,000s)
HN	E Dist Tree Trim Bal Acct		Routine Distribution	$548,012	$229,286	$548,012	$693,148
IG	Various Balancing and Memo Accounts	IGI	Tree Mortality	$0	$0	$0	$91,927
IG	Various Balancing and Memo Accounts	IGJ	Enhanced Vegetation Management	$0	$378,106	$318,742	$451,390
Total				$548,012	$607,392	$866,754	$1,236,466

- Column B in the table above references PG&E's Opening Testimony, which was its ask for funding from the Commission. Note that all the ask was in MWC HN and not in IG. The CPUC's final decision section 7.2.5.1 spells out the adopted amount as $548.013 million.
- Column C refers to PG&E's 2020 RSAR Table 3-3. That table was not meant to be additive. In the case of MWC HN, see below, line 80 is the total spend for Vegetation Management in MWC HN and line 81 is that portion that applies to risk mitigations M16 and M8 (note that this was in MWC HN not in MWC IG)

Line No.	MWC	MWC Name	MAT	MAT Name	RAMP Risk Name	RAMP Mitigation Name	2020 GRC Testimony Reference	2020 Imputed Adopted Costs (A)
80	HN	Vegetation Management Balancing Account	N/A	Not assigned	SRM Total	SRM Total	4-7	$ 548,012.6
81	HN	Vegetation Management Balancing Account	N/A	Not assigned	RAMP Risk: WF Mitigation RAMP Risk: DOCP Mitigation	M16 - Enhanced VM M8- Enhanced VM	4-7	$ 318,742.3

- Column D refers to PG&E's response to data request #14 Question 2e. The table PG&E provided in that response was for actual 2020 spend (included in the 2023 GRC) and not imputed form the prior rate case.

Crowe Rebuttal
None.

Finding 6 - Inconsistent Vegetation Management Cost Tracking Methods Pose Challenges for Tracking Incremental Routine Vegetation Management Costs

Deficiency

Condition:
Based on our review of actual cost operating expenditure data provided by PG&E, we observed that PG&E's routine tree trimming costs increased materially in 2020 from prior years.

Year		Total VM Costs Identified as Routine Tree Trimming Costs ($1,000s)
2017		$152,594
2018		222,645
2019		299,227
2020 (year to date)		653,746

In our review of routine VM costs, we identified that PG&E recorded costs into regions. Within each region, we noted that PG&E recorded certain routine tree timing costs to a specific location at the order level, but also used a single order number to record a large portion of presumably aggregated routine tree trimming costs. PG&E's use of a single order to record routine tree trimming costs gives the impression of potential double counting of costs with other similar costs that are recorded at the order level for a specific location.

Criteria:
The purpose of the Wildfire Mitigation Plan Memorandum Account (WMPMA) is to record, pursuant to Senate Bill (SB) 901 (Public Utilities Code Section 8386.4 (a)) and the Wildfire Mitigation Plan (also known as the Wildfire Safety Plan) approved by the Commission, incremental costs incurred to implement an approved wildfire mitigation plan that are not otherwise recovered in PG&E's adopted revenue requirements. Such costs may include expense and capital expenditures for activities including but not limited to: operational practices, inspection programs, system hardening, enhanced vegetation management, enhanced situational awareness, public safety power shutoffs, and alternative technologies. Costs recorded to the WMPMA will not include costs approved for recovery in PG&E General Rate Cases (GRCs) or recovered through PG&E's Catastrophic Event Memorandum Account (CEMA), Fire Hazard Prevention Memorandum Account (FHPMA), Fire Risk Mitigation Memorandum Account (FRMMA), or other cost recovery mechanisms.

Cause:
PG&E indicated to us that site specific orders allow for the planning and tracking of costs by region. Each region has its own unique profile where circuits are analyzed to determine the amount of tree work required and the budget is aligned accordingly (e.g., defined scope contracts, VMI, work verification). PG&E indicated to us that single large orders track the costs for work that has not been planned by region, or is system-wide, and supports the program as a whole (e.g. IT, admin/program support).

Effect:
PG&E's VM costs are not easily tracked to a specific location within a region if aggregated into a single regional tree trimming order number. Also, there is the potential for duplication of activities between aggregated orders for a region and individual orders opened for work within the region.

Recommendation
PG&E should provide the following:

- Description of the differences between single large orders and site specific orders (by region) associated with 2020 VM costs
- More granular presentation of routine tree trimming costs at the order level, by region and location.

Management Response:
Vegetation Management (VM) primarily tracks costs for programs at the program level and the region level. The tracking of costs is based upon how costs are incurred and how that best informs cost analysis. For example, Information Technology costs are tracked at the program level as those costs support overall operations and are not driven by a specific region. The majority of tree trimming costs are tracked at the divisional level. In limited cases, VM uses individual order numbers on specific activities, where it is necessary to enable other PG&E lines of business to charge costs, such as when a line needs to be de-energized in order to execute VM work safely. VM has successfully used the divisional level cost tracking, along with the project-level tree work detail, to structure and negotiate lump sum contract bundles with contractors for PG&E's 2021 Distribution Routine VM program. These bundles are broadly aligned with VM's divisional structure. VM recognizes the potential for duplication between aggregated orders for a region and individual orders opened for work within the region and, as such, has chosen to limit the use of individual site-specific orders to specific activities, such as when a line needs to be de-energized in order to execute VM work safely. In this way, VM seeks to simplify cost charging guidelines to the contractor and limit the risk of work being charged to more than one order.

Our financials roll up at the highest level to a planning order, which are prefaced with the number 50 or 52. This preface makes a planning order distinguishable from an actual order where costs are actually incurred. Actual orders roll up to a planning order. While actuals orders have been created by both region and division, pre-inspection (PI) and tree work costs are expensed to the region/ division in which the work occurred.

Costs that are expensed to a specific location or site occurs when the work being completed is associated with specific circumstances, such as when a line needs to be de-energized in order to execute VM work safely. This work requires site specific order numbers given how the work requests/ orders gets generated.

Crowe Rebuttal
None.

Finding 7 - Wildfire Mitigation Cost Categories Provided in WMPs Do Not Align with How Wildfire Mitigation Costs are Categorized and Adopted as Part of GRCs, Making it Difficult to Monitor Incremental Wildfire Mitigation Costs

Deficiency

Condition:

In the past, PG&E Wildfire Mitigation Plans (WMPs) have included cost information at the following levels:

2019 Plan

- Plan section and program strategy/area (estimated-actual 2019 costs). These costs were presented separately for both capital and operating expenditures.

2020 Plan

- Wildlife mitigation activity (2019 actual spend, 2020 spend target), organized into situational awareness and forecasting, grid design and system hardening, asset management and inspections, and vegetation management and inspection. These costs were presented as combined for both capital and operating expenditures.

2021 Plan

- WMP category (2020 WMP planned, 2020 actual, 2021 planned, and 2022 planned spend). These costs were presented as combined for both capital and operating expenditures.

We find that approved PG&E WMP capital and operating costs provided at these levels alone are inadequate for purposes of reconciling these costs to those adopted as part of the GRC process. During the course of the GRC process, PG&E provides costs at the Major Work Category (MWC) and Maintenance Activity Type (MAT) levels separately for capital and operating expenditures. However, as noted above for the 2019 through 2021 WMPs costs are only provided at the general program area level or activity level, and for 2020 and 2021 WMPs the costs are aggregated for capital and operating expenditures.

Criteria:

WMP requirements are delineated in the following documents:

- 2019 WMP – D1905036 Guidance Decision on 2019 Wildfire Mitigation Plans
- 2020 WMP – RES WSD-002 Final Guidance Resolution, and Guidance Appendices
- 2021 WMP – 2021 WMP Guidelines Template.

Cause:

The CPUC has not required capital and operating expenditures delineated to the MWC and MAT account code levels as part of WMP content requirements Additionally, WMP content requirements are evolving as Energy Safety gains more experience and knowledge of program needs.

Effect:

Energy Safety will have difficulty reconciling future PG&E wildfire mitigation related capital and operating expenditures approved as part of the WMPs to those funded through the GRC process.

Recommendation

As part of the WMP process, PG&E should provide wildfire mitigation separately for capital and for operating expenditures at the MWC and MAT code levels for easier reconciliation to capital and operating costs adopted as part of the GRC process.

Management Response:
PG&E's accounting system has evolved over many decades in conjunction with the California Public Utilities Commission's rate case process and alignment with PG&E's investment plan. The 2020 Wildfire Mitigation Plan (WMP) was the first time that we were required to break down our wildfire mitigation programs into the list of initiatives as defined in the WMP, notwithstanding that not all of our programs operationally correspond to the WMP-defined initiatives. To adhere to the WMP template filing requirements, we worked to fit our programs into the list of initiatives as required by the Wildfire Safety Division (now referred to as Energy Safety) to the best of our ability by using a variety of allocation methodologies and assumptions to translate our investment plan into the format of the templates.

Energy Safety also provides updates to their templates for PG&E to fill out every year we file the Wildfire Mitigation Plan, and, as such, the 2021 WMP template was different from the 2020 WMP template. Based upon how the new templates are structured, we worked to fit our programs into these initiatives in the 2021 WMP to the best of our ability by using a variety of allocation methodologies and assumptions to translate our investment plan into the WSD defined list of initiatives.

Crowe Rebuttal
None.

Finding 8 - Time Reporting Policies and Procedures Should be Improved, Particularly to Address Vegetation Management Time Reporting Controls and Oversight

Deficiency

Condition:
In our inquiries related to internal controls, over the past year, PG&E employees identified 10 instances of fraud in the area of time reporting, adding to our concerns over time reporting practices. We obtained and reviewed PG&E's time reporting policy and found that it didn't provide sufficient details regarding how, whom, and when PG&E managers review and approve time entries by employees to ensure that they are coded to proper accounts, in particular to distinguish between GRC funded activities and memorandum account activities.

Additionally, we found that PG&E developed a separate time reporting system which third-party vendors working in vegetation management use to record their time. This ad-hoc system is outside of PG&E's own time/expense reporting system (Concur) and upon our inquiry it was somewhat difficult for PG&E to obtain supporting records from this ad hoc system. PG&E had created the system so that it could promptly pay its vendors as traditional PG&E invoice/payment processes took too long to pay vendors.

Criteria:
PG&E has a time reporting standard, the purpose of which is to address the rules for time reporting for PG&E non-represented employees, both nonexempt and exempt. PG&E leaders are responsible for ensuring compliance with this standard.

Cause
Given that a large portion of PG&E's wildfire mitigation related work is programmatic and not project-specific, PG&E management may be less focused on developing policies and procedures that are directed toward reviewing/scrutinizing time charges made by PG&E employees and vendors who work on this programmatic work, in order to ensure accurate time reporting to GRC or wildfire mitigation memorandum account planning orders.

Effect:
There is the potential that work that was targeted for GRC funding, is incorrectly charged to wildfire mitigation charge codes.

Recommendation:
PG&E should enhance its documentation of time reporting policies and procedures, particularly as it relates to the vegetation management system. PG&E should include specifics regarding how account/work codes are set up and approved, how and when employees record time, how PG&E limits work order charges to only those PG&E employees working on a specific work order, and who reviews and approves this time to ensure that it is correctly coded. Additionally, we recommend that PG&E prepare a separate policies and procedures document for the vegetation management system, including how vendors access and are set up in the system, when vendors report time/charges, which work orders/codes are accessible to vendors, which PG&E employees are approved to review vendor time/charges, and how this vendor data interfaces with PG&E's accounting system and what controls are in place to ensure its reliability.

Management Response:
PG&E provides the following clarifications between the time reporting practices of Vegetation Management Employees and Vegetation Management Contractors.

Time reporting by Vegetation Management (VM) employees:

Employees submit timesheets through the Employee Self Service (ESS) portal. Within that online tool, employees provide an order number for all hours worked. Timesheets, including worked hours and the cost assignment, are reviewed by the employees' direct supervisor. Employees and Supervisors select

the appropriate order number based upon VM charging guidelines that are communicated periodically, and at a minimum annually. An excerpt from these charging guidelines is included below and indicates how PG&E uses program-based orders to capture time.

VM Employee Charging Guidelines (Timesheets):

- Charge to a divisional program order where possible and regional program orders when work is regionally based
- When work cannot be directly attributed to a program, e.g., corporate training, code your time to non-billable
- Charge time to program orders based upon the time you spend supporting these specific programs.
- Time can be charged in increments of .5 hrs, but it is not necessary to always allocate to that level of detail.
- If you are devoting significant time supporting work outside of VM. (i.e. System Hardening/ Emergency Response) reach out to your Supervisor for additional charging guidelines

Time reporting by VM Contractor Billing:

VM contractors submit unit or time-based costs directly into the Vegetation Management System (VMS). This invoice submission is supplemented with a time and materials justification form signed by PG&E, timesheets, the work request, and any receipts for pass through costs, as applicable.

All documents are validated by the Central Invoicing Team, Contract Management and local operations to ensure accuracy and that the correct order numbers are being charged. To ensure the accuracy of these orders, they are then sent to the vendors and continue to follow up before payment occurs if the errors are present.

PG&E is seeking to enhance this process, and VM has plans to undertake an internal review of policies and procedures related to employee and contractor time reporting. As a result of this review, VM will determine and make appropriate updates to the affected policies or procedures.

Crowe Rebuttal
None.

Appendix A – Procedures Performed

The CPUC and its WSD (now Energy Safety) specified three (3) objectives for this performance audit of PG&E. In **Exhibit A-1,** we list these three (3) objectives. **Exhibit A-2** provides a list of nineteen (19) tests we performed to address the three (3) objectives.

Exhibit A-1
Performance Audit Objectives

Number	Objective
1	Determine whether actual expenditures to date, and documented future planned expenditures, comply with approved General Rate Case (GRC) funding, related to wildfire mitigation activities, in accordance with GRC rules and regulations.
2	Determine whether operating or capital expenditures identified in PG&E's 2019 and 2020 Wildfire Mitigation Plans (WMPs) are duplicative of operating or capital expenditures approved in the 2017 GRC.
3	Determine whether PG&E's actual expenditures to date, and documented future planned expenditures, comply with the 2019 and 2020 WMPs for activities that PG&E received approval and funding from GRCs or similar applications submitted to Energy Safety between 2017 and 2020.

Exhibit A-2
Performance Audit Procedures

Objective	Procedures
1 - Determine whether actual expenditures to date, and documented future planned expenditures, comply with approved General Rate Case (GRC) funding, related to wildfire mitigation activities, in accordance with GRC rules and regulations.	1. Obtain and review GRC guidelines available in resolutions, decisions, and GRC proceedings (for the 2017 and 2020 rate cases) applicable to spending GRC funds for wildfire mitigation.
	2. Interview PG&E regulatory and finance management to assess how the IOU is complying with applicable GRC resolutions, decisions, and proceedings related to wildfire mitigation spending.
	3. Compare actual PG&E wildfire mitigation activity spending practices with GRC rules and regulations and assess compliance.
	4. Document non-compliance with GRC rules and regulations related to wildfire mitigation activity spending.
2 - Determine whether operating or capital expenditures identified in PG&E's 2019 and 2020 Wildfire Mitigation Plans (WMPs) are	1. Request and obtain a database of actual PG&E capital and operating expenditures covering the period from January 1, 2017 through the present, including expenses for electric operations (transmission and distribution).
	2. Reconcile expenditure amounts included in the database with amounts reported in PG&Es audited financial statements.

Objective	Procedures
duplicative of operating or capital expenditures approved in the 2017 GRC.	3. Reconcile GRC-funded expenditure amounts included in the database to amounts approved by Energy Safety in the GRCs. To perform this test, obtain and review workpapers and exhibits associated with GRC rate case proceedings.
	4. Reconcile capital and operating expenditure amounts included in the database to amounts approved in the 2019 and 2020 WMPs.
	5. Perform analytical procedures to determine whether expenditures reported as GRC funded in the database are also captured as incremental in a memorandum account.
	6. Perform risk assessment of transaction types to inform risk-based sample selection in cost categories with potential duplication between GRC and memorandum accounts. Develop a sample of transactions to test to determine that wildfire mitigation activity expenditures are recorded properly as either GRC funded or incremental in a memorandum account or similar account.
	7. Interview PG&E regulatory and finance management and document procedures used by PG&E to establish approved GRC expenditures by cost category and to track actual expenditures up to approved amounts. This includes potential imputing of approved GRC costs into subordinate cost categories.
	8. Document and quantify instances of duplication between GRC-funded expenditures and incremental (memorandum account) expenditures.
3 - Determine whether PG&E's actual expenditures to date, and documented future planned expenditures, comply with the 2019 and 2020 WMPs for activities that PG&E received approval and funding from GRCs or similar applications submitted to Energy Safety between 2017 and 2020.	1. Using prior GRCs or similar applications, and supporting workpapers and exhibits, create a data set of approved wildfire mitigation related expenditures by cost category.
	2. Using data provided in approved 2019 and 2020 WMPs, create a data set of actual and planned capital and operating wildfire mitigation expenditures by planned funding source.
	3. Link the data sets in item 7a and 7b above to identify funding for 2019 and 2020 WMP activities where PG&E has received approval for in prior GRCs or similar applications.
	4. Link the database in Item 6a to compare approved WMP capital and operating expenditures with actual WMP capital and operating expenditures.
	5. Assess whether PG&E is spending or plans to spend funds approved for in past GRCs or similar applications.
	6. Perform risk assessment of transaction types to inform risk-based sample selection in cost categories with ambiguity between approved amounts and actual spend amounts. Develop a sample of transactions to test to assess whether actual recorded wildfire mitigation activity expenditures are aligned with approved expenditures.

Objective	Procedures
	7. Assess whether actual PG&E wildfire mitigation spending is in accordance with the 2019 and 2020 WMPs and consistent with funding provided in past GRCs or similar applications. Document exceptions.

Appendix B – List of Records Examined

1. 2019 Wildfire Mitigation Plan, dated February 6, 2019
2. Amended 2019 Wildfire Safety Plan, dated February 6, 2019
3. 2020 Wildfire Mitigation Plan Report, dated February 28, 2020
4. 2020 Wildfire Mitigation Plan Report, dated February 28, 2021 (we did not review; submitted after our procedures))
5. Risk Spending Accountability Reports (RSAR)
    a. 2016, dated March 30, 2017
    b. 2017, dated March 30, 2018
    c. 2018 Interim RSAR
    d. 2019 RSAR, submitted March 30, 2020
6. Compliance Report, prepared by Energy Safety for 2016-2018
7. Wildfire Mitigation and Catastrophic Event Interim Rate Application filed February 2020
8. Wildfire Mitigation and Catastrophic Event Cost Analysis (prepared by Ernst & Young), September 2020.
9. Initial application, testimony, and exhibits associated with 2017 and 2020 General Rate Case
10. Audited Financial Statements for calendar years 2017, 2018, 2019 and 2020
11. Internal policies and procedures related to accounting and vendor management.
12. Capital and Operating expenditures for the electric line of business for calendar years 2017, 2018, 2019 and 2020

Appendix C – Comparison of 2017 GRC Adopted Costs to Actual Costs (2017-2019)

In this appendix we compare costs adopted as part of the 2017 General Rate Case for the 2017 to 2019 period with actual costs incurred by PG&E. This appendix includes the following ten (10) exhibits:

- Exhibit C-1 - Total Imputed Expenses By Major Work Category (2017 to 2019)
- Exhibit C-2 - Comparison of Imputed to Actual Expenses (2017)
- Exhibit C-3 - Comparison of Imputed to Actual Expenses (2018)
- Exhibit C-4 - Comparison of Imputed to Actual Expenses (2019)
- Exhibit C-5 - Comparison of Imputed to Actual Expenses (3 Years, Combined 2017 to 2019)
- Exhibit C-6 - Total Imputed Capital Costs By Major Work Category (2017 to 2019)
- Exhibit C-7 - Comparison of Imputed to Actual Capital Costs (2018)
- Exhibit C-8 - Comparison of Imputed to Actual Capital Costs (2018)
- Exhibit C-9 - Comparison of Imputed to Actual Capital Costs (2019)
- Exhibit C-10 - Comparison of Imputed to Actual Capital Costs (3 Years, Combined 2017 to 2019)

Exhibit C-1
Pacific Gas & Electric
2017 General Rate Case
Total Imputed Expenses
By Major Work Category
(2017 to 2019)

MWC	MWC Description	2017 Imputed	2018 Imputed	2019 Imputed
AB	Emer. Prep. & Response	$ 9,436	$ 9,736	$ 10,014
BA	E Dist Operate System	26,025	27,424	28,604
BF	E T&D Patrol/Insp	34,764	36,756	38,391
BH	E Dist Routine Emergency	51,541	54,526	56,990
BK	Maint Other Equip	1,877	1,982	2,069
DD	Provide Field Service	15,979	16,858	17,593
DN	Develop & Provide Training	7,239	7,686	8,040
EV	Manage Service Inquiries	8,391	8,852	9,237
EW	E TD WRO - Maintenance	12,895	13,854	14,645
FZ	E Dist Planning & Ops Engineer	13,919	14,678	15,314
GA	E T&D Maint OH Poles	13,049	14,032	14,817
GC	E Dist Subst O&M	25,372	26,810	27,996
GE	E Dist Mapping	5,146	5,437	5,678
HN	E Dist Tree Trim Bal Acct	201,033	213,371	223,172
HX	E T&D Automation & Protection	1,370	1,447	1,511
IF	E Dist Major Emergency	51,438	54,412	56,846
IS	Bill Customers	N/A	N/A	N/A
JV	Maintain IT Apps & Infra	6,183	6,544	6,837
KA	E Dist Maint OH General	46,458	49,175	51,383
KB	E Dist Maint UG	15,712	16,602	17,337
KC	E Dist Maint Network	4,129	4,364	4,558
OM	Operational Management	18,776	19,869	20,768
OS	Operational Support	24,432	25,853	27,024
Total		$595,164	$630,268	$658,824
TOTAL - 3 years				$1,884,256

Exhibit C-2
Pacific Gas & Electric
2017 General Rate Case
Comparison of Imputed to Actual Expenses
By Major Work Category
(Calendar Year 2017)

MWC	MWC Description	2017 Imputed	2017 Actual	Difference
AB	Support and Emergency Preparedness and Response	$ 9,436	$ 12,376	$ 2,940
BA	Electric Distribution Operation Activities	26,025	15,676	(10,349)
BF	Patrols and Inspections	34,764	26,433	(8,331)
BH	Electric Distribution Routine Emergency	51,541	57,422	5,881
BK	Maintenance of Other Equipment	1,877	1,455	(422)
DD	Customer Field Service Work	15,979	19,355	3,376
DN	Develop and Provide Training	7,239	-	(7,239)
EV	New Customer Connection Service Inquiry Activities	8,391	9,835	1,444
EW	Work Requested by Others (WRO)	12,895	4,390	(8,505)
FZ	Electric Engineering and Planning	13,919	12,823	(1,096)
GA	Poles – Intrusive Inspection/Test and Treat	13,049	12,272	(777)
GC	Operate/Maintain Distribution Substation Assets	25,372	26,569	1,197
GE	Electric Distribution Mapping	5,146	2,249	(2,897)
HN	Vegetation Management Balancing Account	201,033	201,456	423
HX	Distribution Automation/SCADA, Protection Support	1,370	1,592	222
IF	Electric Distribution Major Emergency	51,438	52,362	924
IS	Process Customer Bills	-	1,056	1,056
JV	Maintain IT Applications and Infrastructure	6,183	-	(6,183)
KA	Preventive Maint. and Equip. Repair, Overhead	46,458	27,436	(19,022)
KB	Preventive Maint. and Equip. Repair, Underground	15,712	13,643	(2,069)
KC	Preventive Maint. and Equip. Repair, Network	4,129	3,693	(436)
OM	Operational Management	18,776	14,205	(4,571)
OS	Operational Support	24,432	(5,917)	(30,349)
Total		**$595,164**	**$510,382**	**$(84,782)**

Exhibit C-3
Pacific Gas & Electric
2017 General Rate Case
Comparison of Imputed to Actual Expenses
By Major Work Category
(Calendar Year 2018)

MWC	MWC Description	2018 Imputed	2018 Actual	Difference
AB	Support and Emergency Preparedness and Response	$ 9,736	$ 18,116	$ 8,380
BA	Electric Distribution Operation Activities	27,424	22,421	(5,003)
BF	Patrols and Inspections	36,756	26,949	(9,807)
BH	Electric Distribution Routine Emergency	54,526	59,196	4,670
BK	Maintenance of Other Equipment	1,982	1,414	(568)
DD	Customer Field Service Work	16,858	20,157	3,299
DN	Develop and Provide Training	7,686	-	(7,686)
EV	New Customer Connection Service Inquiry Activities	8,852	11,074	2,222
EW	Work Requested by Others (WRO)	13,854	8,759	(5,095)
FZ	Electric Engineering and Planning	14,678	12,107	(2,571)
GA	Poles – Intrusive Inspection/Test and Treat	14,032	10,700	(3,332)
GC	Operate/Maintain Distribution Substation Assets	26,810	26,926	116
GE	Electric Distribution Mapping	5,437	4,326	(1,111)
HN	Vegetation Management Balancing Account	213,371	260,460	47,089
HX	Distribution Automation/SCADA, Protection Support	1,447	1,447	-
IF	Electric Distribution Major Emergency	54,412	7,772	(46,640)
IS	Process Customer Bills	-	853	853
JV	Maintain IT Applications and Infrastructure	6,544	1	(6,543)
KA	Preventive Maint. and Equip. Repair, Overhead	49,175	33,129	(16,046)
KB	Preventive Maint. and Equip. Repair, Underground	16,602	17,078	476
KC	Preventive Maint. and Equip. Repair, Network	4,364	4,007	(357)
OM	Operational Management	19,869	5,274	(14,595)
OS	Operational Support	25,853	20,345	(5,508)
Total		**$630,268**	**$572,511**	**$(57,757)**

Exhibit C-4
Pacific Gas & Electric
2017 General Rate Case
Comparison of Imputed to Actual Expenses
By Major Work Category
(Calendar Year 2019)

MWC	MWC Description	2019 Imputed	2019 Actual	Difference
AB	Support and Emergency Preparedness and Response	$ 10,014	$ 15,327	$ 5,313
BA	Electric Distribution Operation Activities	28,603	22,634	(5,969)
BF	Patrols and Inspections	38,391	33,892	(4,499)
BH	Electric Distribution Routine Emergency	56,990	68,839	11,849
BK	Maintenance of Other Equipment	2,069	1,927	(141)
DD	Customer Field Service Work	17,593	20,240	2,647
DN	Develop and Provide Training	8,040	-	(8,040)
EV	New Customer Connection Service Inquiry Activities	9,237	10,240	1,003
EW	Work Requested by Others (WRO)	14,645	6,107	(8,538)
FZ	Electric Engineering and Planning	15,315	11,106	(4,208)
GA	Poles – Intrusive Inspection/Test and Treat	14,817	16,829	2,012
GC	Operate/Maintain Distribution Substation Assets	27,996	28,325	329
GE	Electric Distribution Mapping	5,678	175	(5,502)
HN	Vegetation Management Balancing Account	223,172	363,267	140,094
HX	Distribution Automation/SCADA, Protection Support	1,511	1,971	460
IF	Electric Distribution Major Emergency	56,846	117,555	60,709
IS	Process Customer Bills	-	165	165
JV	Maintain IT Applications and Infrastructure	6,837	5	(6,832)
KA	Preventive Maint. and Equip. Repair, Overhead	51,383	61,098	9,714
KB	Preventive Maint. and Equip. Repair, Underground	17,337	16,442	(895)
KC	Preventive Maint. and Equip. Repair, Network	4,558	4,514	(44)
OM	Operational Management	20,768	12,407	(8,361)
OS	Operational Support	27,024	7,571	(19,453)
Total		**$658,823**	**$820,634**	**$161,811**

Exhibit C-5
Pacific Gas & Electric
2017 General Rate Case
Comparison of Imputed to Actual Expenses
By Major Work Category
(3 Years, Combined 2017 to 2019)

MWC	MWC Description	3-Years Imputed	3-Years Actual	Difference
AB	Support and Emergency Preparedness and Response	$ 29,186	$ 45,820	16,634
BA	Electric Distribution Operation Activities	82,052	60,731	(21,322)
BF	Patrols and Inspections	109,911	87,274	(22,637)
BH	Electric Distribution Routine Emergency	163,057	185,456	22,399
BK	Maintenance of Other Equipment	5,928	4,797	(1,131)
DD	Customer Field Service Work	50,430	59,751	9,322
DN	Develop and Provide Training	22,965	-	(22,965)
EV	New Customer Connection Service Inquiry Activities	26,480	31,149	4,669
EW	Work Requested by Others (WRO)	41,394	19,256	(22,138)
FZ	Electric Engineering and Planning	43,912	36,036	(7,876)
GA	Poles – Intrusive Inspection/Test and Treat	41,898	39,801	(2,097)
GC	Operate/Maintain Distribution Substation Assets	80,178	81,820	1,642
GE	Electric Distribution Mapping	16,261	6,751	(9,510)
HN	Vegetation Management Balancing Account	637,576	825,183	187,606
HX	Distribution Automation/SCADA, Protection Support	4,328	5,010	682
IF	Electric Distribution Major Emergency	162,696	177,689	14,993
IS	Process Customer Bills	-	2,075	2,075
JV	Maintain IT Applications and Infrastructure	19,564	6	(19,558)
KA	Preventive Maint. and Equip. Repair, Overhead	147,016	121,662	(25,354)
KB	Preventive Maint. and Equip. Repair, Underground	49,651	47,162	(2,488)
KC	Preventive Maint. and Equip. Repair, Network	13,051	12,214	(837)
OM	Operational Management	59,413	31,887	(27,526)
OS	Operational Support	77,309	21,999	(55,310)
Total		**$1,884,255**	**$1,903,527**	**$19,273**

Exhibit C-6
Pacific Gas & Electric
2017 General Rate Case
Total Imputed Capital Costs
By Major Work Category
(2017 to 2019)

MWC	MWC Description	2017 Imputed	2018 Imputed	2019 Imputed
5	Tools & Equipment	$(18,143)	$(16,832)	$(16,346)
6	E Dist Line Capacity	89,337	82,989	80,310
7	E Dist Install/Repl OH Poles	86,328	68,557	76,503
8	E Dist Reliability Base	45,091	41,888	40,535
9	E Dist Automation & Protection	48,174	44,751	43,306
10	E Dist Work at the Request of Others General	76,403	70,975	68,683
16	E Dist Customer Connects	399,720	371,321	359,331
17	E Dist Routine Emergency	146,893	136,457	132,051
21	Emergency Preparedness and Response	8,022	7,434	7,241
23	Implement Real Estate Strategy	5,652	5,238	5,102
30	E Dist Work at the Request of Others Rule 20A	57,919	53,804	52,067
46	E Dist Substation Capacity	67,755	62,942	60,909
48	E Dist Subst Repl Other Equipment	80,892	75,145	72,718
49	E Dist Reliability Circuit/Zone	80,428	74,713	72,301
54	E Dist Subst Repl Transformer	42,686	39,654	38,373
56	E Dist Repl Underground Asset-Generation	107,750	100,094	96,862
58	E Dist Repl Substation Safety	2,315	2,151	2,081
59	E Dist Substation Emergency Repl	45,517	42,283	40,918
63	E T&D Control System/ Facility	1,096	1,019	986
95	E Dist Major Emergency	56,474	52,462	50,768
2A	E Dist Installation/Repl OH General	118,036	109,649	106,109
2B	E Dist Install/Repl Underground	43,748	40,640	39,328
2C	E Dist Install/Repl Network	20,130	18,700	18,096
2F	Build IT Apps & Infra	50,126	46,565	45,061
Total		$1,662,349	$1,532,599	$1,493,293
	TOTAL - 3 years			$4,688,241

Exhibit C-7
Pacific Gas & Electric
2017 General Rate Case
Comparison of Imputed to Actual Capital Costs
By Major Work Category
(Calendar Year 2017)

MWC	MWC Description	2017 Imputed	2017 Actual	Difference
5	Tools & Equipment	$ (18,143)	$ 552	$ 18,695
6	Electric Distribution Line and Equipment Capacity	89,337	55,959	(33,378)
7	Electric Distribution Install/Replace Overhead (OH) Poles	86,328	99,642	13,314
8	Electric Distribution Reliability Base - Overhead (OH) Asset Replacement	45,091	25,610	(19,481)
9	Electric Distribution Automation and Protection	48,174	54,638	6,464
10	Electric Distribution Work Requested by Others (WRO) General	76,403	97,298	20,895
16	Electric Distribution Customer Connections	399,720	362,474	(37,246)
17	Electric Distribution Routine Emergency	146,893	183,990	37,097
21	Misc. Capital and Emergency Preparedness & Response (EP&R); Office Equipment	8,022	1,640	(6,382)
23	Implement Real Estate Strategy	5,652	-	(5,652)
30	Electric Distribution WRO - Rule 20A	57,919	28,255	(29,664)
46	Electric Distribution Substation Capacity	67,755	17,362	(50,393)
48	Electric Distribution Substation Replace Other Equipment	80,892	96,890	15,998
49	Electric Distribution Circuit/Zone Reliability Program	80,482	44,721	(35,761)
54	Electric Distribution Substation Transformer Replacements	42,686	22,274	(20,412)
56	Electric Distribution UG Asset Replacements	107,750	86,808	(20,942)
58	Electric Distribution Substation Safety and Security	2,315	3,177	862
59	Electric Distribution Substation Emergency Replacements	45,517	82,722	37,205
63	Electric Operations Control Center Facility and Operations	1,096	3,724	2,628
95	Electric Distribution Major Emergency	56,474	62,705	6,231
2A	Electric Distribution Preventative Maintenance (EDPM) OH	118,036	109,867	(8,169)
2B	Electric Distribution Preventative Maintenance (EDPM) UG	43,748	50,050	6,302
2C	Electric Distribution Preventative Maintenance (EDPM) Network	20,130	17,490	(2,640)
2F	Build IT Applications and Infrastructure	50,126	436	(49,690)
Total		**$1,662,403**	**$1,508,25**	**$(154,118)**

Exhibit C-8
Pacific Gas & Electric
2017 General Rate Case
Comparison of Imputed to Actual Capital Costs
By Major Work Category
(Calendar Year 2018)

MWC	MWC Description	2018 Imputed	2018 Actual	Difference
5	Tools & Equipment	$ (16,832)	$ 2	$ 16,834
6	Electric Distribution Line and Equipment Capacity	82,989	67,666	(15,323)
7	Electric Distribution Install/Replace Overhead (OH) Poles	68,557	227,838	159,281
8	Electric Distribution Reliability Base - Overhead (OH) Asset Replacement	41,888	15,874	(26,014)
9	Electric Distribution Automation and Protection	44,751	65,054	20,303
10	Electric Distribution Work Requested by Others (WRO) General	70,975	121,025	50,050
16	Electric Distribution Customer Connections	371,321	434,467	63,146
17	Electric Distribution Routine Emergency	136,457	187,745	51,288
21	Misc. Capital and Emergency Preparedness & Response (EP&R); Office Equipment	7,434	229	(7,205)
23	Implement Real Estate Strategy	5,238	-	(5,238)
30	Electric Distribution WRO - Rule 20A	53,804	32,610	(21,194)
46	Electric Distribution Substation Capacity	62,942	12,368	(50,574)
48	Electric Distribution Substation Replace Other Equipment	75,145	106,900	31,755
49	Electric Distribution Circuit/Zone Reliability Program	74,713	25,005	(49,708)
54	Electric Distribution Substation Transformer Replacements	39,654	31,086	(8,568)
56	Electric Distribution UG Asset Replacements	100,094	83,007	(17,087)
58	Electric Distribution Substation Safety and Security	2,151	2,290	139
59	Electric Distribution Substation Emergency Replacements	42,283	63,711	21,428
63	Electric Operations Control Center Facility and Operations	1,019	8,760	7,741
95	Electric Distribution Major Emergency	52,462	33,317	(19,145)
2A	Electric Distribution Preventative Maintenance (EDPM) OH	109,649	179,099	69,450
2B	Electric Distribution Preventative Maintenance (EDPM) UG	40,640	70,325	29,685
2C	Electric Distribution Preventative Maintenance (EDPM) Network	18,700	20,847	2,147
2F	Build IT Applications and Infrastructure	46,565	224	(46,341)
Total		**$1,532,599**	**$1,789,450**	**$256,851**

Exhibit C-9
Pacific Gas & Electric
2017 General Rate Case
Comparison of Imputed to Actual Capital Costs
By Major Work Category
(Calendar Year 2019)

MWC	MWC Description	2019 Imputed	2019 Actual	Difference
5	Tools & Equipment	$ (16,346)	$ 2	$ 16,347
6	Electric Distribution Line and Equipment Capacity	80,310	73,444	(6,865)
7	Electric Distribution Install/Replace Overhead (OH) Poles	76,503	248,523	172,020
8	Electric Distribution Reliability Base - Overhead (OH) Asset Replacement	40,535	23,797	(16,738)
9	Electric Distribution Automation and Protection	43,306	56,273	12,966
10	Electric Distribution Work Requested by Others (WRO) General	68,683	120,765	52,082
16	Electric Distribution Customer Connections	359,331	461,964	102,633
17	Electric Distribution Routine Emergency	132,051	207,740	75,690
21	Misc. Capital and Emergency Preparedness & Response (EP&R); Office Equipment	7,241	733	(6,508)
23	Implement Real Estate Strategy	5,102	-	(5,102)
30	Electric Distribution WRO - Rule 20A	52,067	45,758	(6,309)
46	Electric Distribution Substation Capacity	60,909	17,714	(43,195)
48	Electric Distribution Substation Replace Other Equipment	72,718	79,977	7,258
49	Electric Distribution Circuit/Zone Reliability Program	72,301	18,942	(53,358)
54	Electric Distribution Substation Transformer Replacements	38,373	39,161	788
56	Electric Distribution UG Asset Replacements	96,862	66,030	(30,832)
58	Electric Distribution Substation Safety and Security	2,081	9,054	6,973
59	Electric Distribution Substation Emergency Replacements	40,918	72,703	31,785
63	Electric Operations Control Center Facility and Operations	986	13,383	12,397
95	Electric Distribution Major Emergency	50,768	123,311	72,543
2A	Electric Distribution Preventative Maintenance (EDPM) OH	106,109	173,877	67,768
2B	Electric Distribution Preventative Maintenance (EDPM) UG	39,328	60,873	21,545
2C	Electric Distribution Preventative Maintenance (EDPM) Network	18,096	18,470	374
2F	Build IT Applications and Infrastructure	45,061	170	(44,892)
Total		**$1,493,292**	**$1,932,665**	**$439,373**

Exhibit C-10
Pacific Gas & Electric
2017 General Rate Case
Comparison of Imputed to Actual Capital Costs
By Major Work Category
(3 Years, Combined 2017 to 2019)

MWC	MWC Description	3-Years Imputed	3-Years Actual	Difference
5	Tools & Equipment	$ (51,321)	$ 556	$ 51,876
6	Electric Distribution Line and Equipment Capacity	252,636	197,070	(55,566)
7	Electric Distribution Install/Replace Overhead (OH) Poles	231,388	576,003	344,615
8	Electric Distribution Reliability Base - Overhead (OH) Asset Replacement	127,514	65,281	(62,233)
9	Electric Distribution Automation and Protection	136,231	175,965	39,734
10	Electric Distribution Work Requested by Others (WRO) General	216,061	339,088	123,027
16	Electric Distribution Customer Connections	1,130,372	1,258,905	128,533
17	Electric Distribution Routine Emergency	415,401	579,476	164,075
21	Misc. Capital and Emergency Preparedness & Response (EP&R); Office Equipment	22,697	2,602	(20,095)
23	Implement Real Estate Strategy	15,992	-	(15,992)
30	Electric Distribution WRO - Rule 20A	163,790	106,624	(57,166)
46	Electric Distribution Substation Capacity	191,606	47,444	(144,162)
48	Electric Distribution Substation Replace Other Equipment	228,755	283,766	55,011
49	Electric Distribution Circuit/Zone Reliability Program	227,496	88,668	(138,828)
54	Electric Distribution Substation Transformer Replacements	120,713	92,521	(28,192)
56	Electric Distribution UG Asset Replacements	304,706	235,845	(68,861)
58	Electric Distribution Substation Safety and Security	6,547	14,521	7,974
59	Electric Distribution Substation Emergency Replacements	128,718	219,137	90,419
63	Electric Operations Control Center Facility and Operations	3,101	25,867	22,767
95	Electric Distribution Major Emergency	159,704	219,333	59,630
2A	Electric Distribution Preventative Maintenance (EDPM) OH	333,794	462,843	129,049
2B	Electric Distribution Preventative Maintenance (EDPM) UG	123,716	181,248	57,532
2C	Electric Distribution Preventative Maintenance (EDPM) Network	56,926	56,807	(119)
2F	Build IT Applications and Infrastructure	141,752	830	(140,923)
Total		**$4,688,294**	**$5,230,400**	**$542,106**

Appendix D – Comparison of 2020 GRC Adopted Costs to Actual Costs (2020)

In this appendix we compare costs adopted as part of the 2020 General Rate Case for 2020 with actual costs incurred by PG&E. This appendix includes the following ten (10) exhibits:

- Exhibit D-1 - Comparison of Imputed to Actual Expenses (2020)
- Exhibit D-2 - Comparison of Imputed to Actual Capital Costs (2020).

Exhibit D-1
Pacific Gas & Electric
2020 General Rate Case
Comparison of Imputed to Actual Expenses
By Major Work Category
(Calendar Year 2020)

MWC	MWC Description	2020 Imputed	2020 Actual	Difference
AB	Emer. Prep. & Response	$ 66,477	$ 53,513	$ (12,963)
AR	Read & Investigate Meters	-	10,096	10,096
AT			13,045	13,045
BA	E Dist Operate System	21,344	30,017	8,673
BF	E T&D Patrol/Insp	33,084	112,681	79,597
BH	E Dist Routine Emergency	57,276	67,075	9,799
BK	Maint Other Equip	1,663	1,851	189
DD	Provide Field Service	20,381	23,606	3,224
DN	Develop & Provide Training	-	168	168
EV	Manage Service Inquiries	12,625	12,986	361
EW	E TD WRO - Maintenance	8,859	15,521	6,663
EY	Change/Maintenance Used Electric Motor	-	6,809	6,809
FZ	E Dist Planning & Ops Engineer	16,974	16,645	(329)
GA	E T&D Maint OH Poles	13,585	21,896	8,312
GC	E Dist Subst O&M	29,125	46,990	17,866
GE	E Dist Mapping	5,899	8,845	2,946
HG	E Dist Operational Technology	10,948	7,228	(3,720)
HN	E Dist Tree Trim Bal Acct	548,013	736,320	188,307
HX	E T&D Automation & Protection	2,048	2,344	296
HY	Perform Gas Meter Maintenance	-	1,552	1,552
IF	E Dist Major Emergency	33,744	30,973	(2,770)
IG	Various Balancing and Memo Accounts	-	618,549	618,549
IS	Bill Customers	1,088	709	(379)
IU	Collect Revenue		1,499	1,499
JV	Maintain IT Apps & Infra	5,246	27	(5,219)
KA	E Dist Maint OH General	32,449	107,205	74,757
KB	E Dist Maint UG	12,537	13,147	610
KC	E Dist Maint Network	4,025	4,891	865
LX			20,310	20,310
OM	Operational Management	7,217	(4,204)	(11,421)
OS	Operational Support	22,305	56,146	33,841
Total		$966,909	$2,038,441	$1,071,532

Exhibit D-2
Pacific Gas & Electric
2020 General Rate Case
Comparison of Imputed to Actual Capital Costs
By Major Work Category
(Calendar Year 2020)

MWC	MWC Description	2020 Imputed	2020 Actual	Difference
5	Tools & Equipment	$ 7,398	$ 6,711	$ (686)
6	E Dist Line Capacity	90,794	107,255	16,462
7	E Dist Install/Repl OH Poles	108,279	246,132	137,854
8	E Dist Reliability Base	544,535	287,024	(257,511)
9	E Dist Automation & Protection	33,845	37,504	3,659
10	E Dist Work at the Request of Others General	121,507	145,661	24,154
16	E Dist Customer Connects	450,570	536,186	85,615
17	E Dist Routine Emergency	183,518	247,500	63,981
21	Emergency Preparedness and Response	(24,929)	17,449	42,377
25	Install New Electric Motors	-	24,205	24,205
30	E Dist Work at the Request of Others Rule 20A	33,420	38,273	4,852
46	E Dist Substation Capacity	33,678	35,574	1,896
48	E Dist Subst Repl Other Equipment	49,407	82,934	33,527
49	E Dist Reliability Circuit/Zone	35,603	110,039	74,435
54	E Dist Subst Repl Transformer	5,513	31,907	26,394
56	E Dist Repl Underground Asset-Generation	98,751	79,924	(18,827)
58	E Dist Repl Substation Safety	4,610	3,369	(1,241)
59	E Dist Substation Emergency Repl	62,612	117,262	54,650
63	E T&D Control System/ Facility	36,915	45,491	8,576
65			119	119
74	Install New Gas Motors	-	18,218	18,218
82			380	380
95	E Dist Major Emergency	55,086	(126,573)	(181,660)
96			(17)	(17)
2A	E Dist Installation/Repl OH General	192,504	312,069	119,565
2B	E Dist Install/Repl Underground	57,229	47,590	(9,639)
2C	E Dist Install/Repl Network	19,261	22,566	3,305
2F	Build IT Apps & Infra	17,570	136	(17,435)
3F			58	58
3R	Energy Storage Capital	-	206	206
Total		$2,217,676	$2,475,148	$257,473

Appendix E – Management Response

Pacific Gas and Electric Company

September 3, 2021

Koko Tomassian
Program Manager, Compliance Division
Office of Energy Infrastructure Safety

Re: **PG&E's Response to the Draft Report of Crowe LLP's (Crowe) audit of PG&E's 2019 and 2020 Wildfire Mitigation Plan expenditure**

Dear Mr. Tomassian:

We appreciate the opportunity to review and respond to the draft report of Crowe's audit of PG&E's 2019 and 2020 Wildfire Mitigation Plan (WMP) expenditures. We have been actively engaged with Crowe since August of 2020 to provide responses to their inquiries as efficiently and effectively as possible and met on a regular cadence during the discovery process. Crowe received their last data response in May of 2021, produced their draft to PG&E on August 20, 2021, and held an exit interview with us on August 26, 2021.

In their draft report, Crowe identifies eight findings they believe to be significant or have the potential to be significant deficiencies in the tracking of WMP expenditures. To the extent the identified deficiencies do include actions we can take or are already taking to improve our tracking of expenditures for the initiatives within the WMP, we acknowledge so in our responses to the findings. However, several of the deficiencies identified have already or will be addressed by the Commission in established proceedings to review the costs to operate and maintain the utility system at just and reasonable rates. We believe that these conclusions are based on a misunderstanding of utility forecasting and ratemaking, which we address in our responses. Our responses to each of the eight findings are attached.

Thank you for the opportunity to provide formal responses to the findings of Crowe's audit. Should there be any questions regarding these responses, please do not hesitate to contact Wade Greenacre at Wade.Greenacre@pge.com or 415-500-1739.

Sincerely,

//s//

Matt Whorton
Director, Business Finance Electric Operations and Engineering & Strategy
Pacific Gas and Electric Company

cc: Erik Nylund, Crowe LLP
Aaron Coen, Crowe LLP
Caroline Thomas Jacobs, Energy Safety
MaryBeth Farley, Energy Safety
Wade Greenacre, Pacific Gas and Electric Company

PACIFIC GAS AND ELECTRIC COMPANY

RESPONSE TO CROWE AUDIT

ATTACHMENT 1

SEPTEMBER 3, 2021

PG&E RESPONSE FINDING 1

FINDING 1 OVERHEAD COSTS IN WILDFIRE MEMORANDUM ACCOUNTS ARE ALREADY INCLUDED IN 2017 GENERAL RATE CASE APPROVED COSTS FOR 2017 TO 2019

Condition:

PG&E included overhead costs ("overheads") in its Fire Risk Mitigation Memorandum Account (FRMMA) and Wildfire Mitigation Plan Memorandum Account (WMPMA) between 2018 and 2020. These overheads also were covered in cost projections approved by the CPUC in the 2017 General Rate Case (2017 GRC) and are therefore not incremental. Overhead costs include operational management and support, fleet, material burden, building services, information technology (IT) devices and payroll taxes. PG&E would not have removed these costs in its 2017 GRC as the WMP was realized after the 2017 GRC.

Criteria:

The purpose of the Fire Risk Mitigation Memorandum Account (FRMMA) is to record, pursuant to Senate Bill (SB) 901 (Public Utilities Code Section 8386 (j)), incremental costs of fire risk mitigation work that is not otherwise recovered in PG&E's adopted revenue requirements. Such costs shall include, but are not limited to, expense and capital expenditures for: advanced system hardening and resiliency; expanded automation and protection; improved wildfire detection; enhanced event response capacity, and vegetation management activities. Costs recorded to the FRMMA will not include costs approved for recovery in PG&E General Rate Cases (GRCs) or recovered through PG&E's Catastrophic Event Memorandum Account (CEMA), Fire Hazard Prevention Memorandum Account (FHPMA) or other cost recovery mechanisms including the memorandum account approved as part of PG&E's annual Wildfire Mitigation Plan, as set forth in SB 901 (Public Utilities Code Section 8386 (e)).

The purpose of the Wildfire Mitigation Plan Memorandum Account (WMPMA) is to record, pursuant to Senate Bill (SB) 901 (Public Utilities Code Section 8386.4 (a)) and the Wildfire Mitigation Plan (also known as the Wildfire Safety Plan) approved by the Commission, incremental costs incurred to implement an approved wildfire mitigation plan that are not otherwise recovered in PG&E's adopted revenue requirements. Such costs may include expense and capital expenditures for activities including but not limited to: operational practices, inspection programs, system hardening, enhanced vegetation management, enhanced situational awareness, public safety power shutoffs, and alternative technologies. Costs recorded to the WMPMA will not include costs approved for recovery in PG&E General Rate Cases (GRCs) or recovered through PG&E's Catastrophic Event Memorandum Account (CEMA), Fire Hazard Prevention Memorandum Account (FHPMA), Fire Risk Mitigation Memorandum Account (FRMMA), or other cost recovery mechanisms.

Cause:

PG&E's GRC forecast is activity-based. PG&E therefore does not represent the total cost of overheads for all work PG&E performs related to the GRC. The GRC includes the portion of PG&E's total costs that are associated with GRC activities. While PG&E may have envisioned recovering some of its overheads through other funding

mechanisms, and thus reduced its 2017 GRC forecast to account for these other known sources, in 2017, PG&E would not have reduced its GRC forecast of overheads to account for wildfire mitigation activities as PG&E's WMP was not approved until 2019.

Effect:

Total overhead costs included in PG&E FRMMA and WMPMA accounts equaled $13.24M between January 1, 2018 and September 30, 2020. Examples of cost categories with overhead costs already captured in the approved GRC include:

- Benefits Overhead ($2,140,127)
- Building Service Overhead ($473,173)
- Capitalized A&G ($3,230,228)
- Fleet Overhead ($1,786,895)
- Minor Material Overhead ($2,051,024)
- Operating Mgt & Support – Electric ($2,670,900).

Recommendation:

PG&E should not be compensated for overhead costs assigned to the wildfire memorandum accounts between 2018 and 2020 as they are not incremental.

Management Response:

Crowe asserts that overheads and straight-time labor recorded to WMPMA and FRMMA are not incremental to the GRC as they were already contemplated in the GRC. In so doing, Crowe presumes straight-time and overhead costs are effectively fixed, identified and discretely recovered across PG&E's various cost recovery avenues. This is inaccurate. Due to its activity-based forecasting, PG&E does not discretely forecast specific cost categories or staffing levels, regardless of the makeup of that work. In addition, the wildfire costs PG&E is requesting in its applications are wholly new. As expressed in PG&E's testimony in its 2020 Wildfire Mitigation and Catastrophic Events (WMCE) filing:

> The wildfire … costs for which we seek recovery in this application were not included in PG&E's 2017 GRC forecast. The following section describes our activity-based methodology for forecasting and recording costs for recovery through rates, which is foundational to the incrementality of the activities for which we seek recover in this application.
>
> The recovery mechanism for a particular PG&E activity is determined by the activity scope. Activity-based forecasts create cost estimates, scopes, and schedules for work which are not tied to particular departments or staff. As an example, we forecast asset maintenance activities based on the anticipated volume and complexity of work that is required to safely maintain the system in compliance with established policies and requirements. At the time the forecast is created, the resources to execute the work are not specified. The maintenance work is either completed with internal PG&E employees or contracted vendors, and the forecasted

> cost does not include internal employee salaries. The resources to complete the work ultimately are assigned closer in time to the execution of the work.
>
> PG&E's forecasts typically present an aggregate cost for an activity without capturing the specific components of cost, labor, overheads, materials, etc. [including straight time]. PG&E's headcount and support functions are not captured by any particular recovery mechanism, such as the GRC. Moreover, PG&E's methodology for forecasting is not so granular that materials or distinct allocations are explicitly identified in the forecast.
>
> We use an activity-based forecast to ensure proper cost recovery through the appropriate mechanism. Our forecasts are not associated with specific employees or departments; instead they are based upon volumes of work, regardless of how the work is executed or by whom. Because PG&E staff and organizations often support work across multiple rate cases and regulatory accounts, this methodology provides flexibility to use internal and external resources as necessary to execute the work.[1]

Furthermore, overheads should be charged based on cost-causation principles. Cost drivers are defined by NARUC as "a measurable event or quantity which influences the level of costs incurred and which can be directly traced to the origin of the costs themselves." The activities performed within these accounts include cost drivers for the following overheads, and therefore these overheads should be charged to the accounts:

- Benefits Overheads
- Building Service Overheads
- Capitalized A&G
- Fleet Overhead
- Minor Material Overhead
- Operating Mgt & Support – Electric

Disallowing these overheads has the potential to overburden other parts of the business and therefore could overburden certain customers over others.

In addition, virtually none of the work done in FRMMA and WMPMA existed in 2015 when the 2017 GRC was filed from which the 2019 imputed GRC costs come. As explained in the 2020 WMCE:

> FRMMA and WMPMA: Following recent devastating wildfires in California, the Legislature passed SB 901, which called for utilities to create a Wildfire Mitigation Plan (WMP). PG&E submitted our 2019 WMP [Wildfire Mitigation Plan] to the CPUC as required in R. 18-10-007. Mitigation work performed pursuant to our 2019 WMP for which recovery is sought here was tracked in the FRMMA or WMPMA and the work generally occurred in 2019.
>
> As part of our 2019 WMP, we have instituted new programs, activities, and increased work volumes, which are incremental and not part of the GRC or any other rate case. The 2017 GRC, which covers 2017-2019, used 2014 recorded

[1] See PG&E's 2020 WMCE Testimony, pp.8-3 to 8-4

amounts as the "base year" and was filed in 2015 before we substantially reassessed our wildfire mitigation work in 2018.[2]

Therefore, all costs associated with this new work, straight-time labor, overheads, etc. should be considered part and parcel of the cost needed to perform the work, as PG&E further explained in its 2020 WMCE application:

> Costs for each of the work categories included in this application are incremental to the amounts authorized by the 2017 GRC Decision on one of the following bases.
>
> 1) New Activities
>
> Wildfire events in 2017 and 2018, and legislation implemented in response to them, led us to implement new programs that were neither contemplated by nor part of our requests in the 2017 GRC.
>
> 2) Increased Work Volumes
>
> Developments in 2017 and 2018 led us to significantly expand programs that were originally included in the 2017 GRC Decision. For example, some programs saw a dramatic increase in units of work completed over adopted amounts. This application seeks recovery for only costs of the incremental work completed above and beyond what was specifically authorized in or imputed from the 2017 GRC Decision.[3]

The incrementality of these expenditures also was validated by an independent third-party auditor. PG&E retained Ernst & Young (E&Y) to audit its 2019 wildfire costs for incrementality. E&Y determined that PG&E's costs submitted in the 2020 WMCE for FRMMA/WMPMA were wholly incremental to PG&E's GRC costs. Further, the fact that PG&E substantially overspent its 2019 GRC adopted costs demonstrate, again, that all OH/ST included in the GRC had been spent. Indeed, as E&Y stated in the audit

> Based on our holistic analyses, the company appears to have overspent its 2019 imputed balance by approximately $2.2 billion. We noted within the RSAR data that of the approximately $2.2 billion in overspend, $1.6 billion is attributed to the Memorandum Accounts. Additionally, the Company appears to have overspent its GRC above and beyond the amount of the Memorandum Accounts by a total of approximately $600 million.[4]

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[2] See PG&E's 2020 WMCE Testimony, p.8-7

[3] See PG&E's 2020 WMCE Testimony, pp.8-7 to 8-8

[4] See PG&E's 2020 WMCE Testimony, pp.8-AtchA-27

PG&E RESPONSE FINDING 2

FINDING 2 STRAIGHT TIME LABOR COSTS IN WILDFIRE MEMORANDUM ACCOUNTS ARE ALREADY INCLUDED IN 2017 GENERAL RATE CASE APPROVED COSTS FOR 2017 TO 2019

Condition:

PG&E included $10.66M of straight time labor costs in its Fire Risk Mitigation Memorandum Account (FRMMA) and Wildfire Mitigation Plan Memorandum Account (WMPMA) between 2018 and 2020. This straight time labor cost also was covered in cost projections approved by the CPUC in the 2017 General Rate Case (2017 GRC) and is therefore not incremental.

Criteria:

The purpose of the Fire Risk Mitigation Memorandum Account (FRMMA) is to record, pursuant to Senate Bill (SB) 901 (Public Utilities Code Section 8386 (j)), incremental costs of fire risk mitigation work that is not otherwise recovered in PG&E's adopted revenue requirements. Such costs shall include, but are not limited to, expense and capital expenditures for: advanced system hardening and resiliency; expanded automation and protection; improved wildfire detection; enhanced event response capacity, and vegetation management activities. Costs recorded to the FRMMA will not include costs approved for recovery in PG&E General Rate Cases (GRCs) or recovered through PG&E's Catastrophic Event Memorandum Account (CEMA), Fire Hazard Prevention Memorandum Account (FHPMA) or other cost recovery mechanisms including the memorandum account approved as part of PG&E's annual Wildfire Mitigation Plan, as set forth in SB 901 (Public Utilities Code Section 8386 (e)).

The purpose of the Wildfire Mitigation Plan Memorandum Account (WMPMA) is to record, pursuant to Senate Bill (SB) 901 (Public Utilities Code Section 8386.4 (a)) and the Wildfire Mitigation Plan (also known as the Wildfire Safety Plan) approved by the Commission, incremental costs incurred to implement an approved wildfire mitigation plan that are not otherwise recovered in PG&E's adopted revenue requirements. Such costs may include expense and capital expenditures for activities including but not limited to: operational practices, inspection programs, system hardening, enhanced vegetation management, enhanced situational awareness, public safety power shutoffs, and alternative technologies. Costs recorded to the WMPMA will not include costs approved for recovery in PG&E General Rate Cases (GRCs) or recovered through PG&E's Catastrophic Event Memorandum Account (CEMA), Fire Hazard Prevention Memorandum Account (FHPMA), Fire Risk Mitigation Memorandum Account (FRMMA), or other cost recovery mechanisms.

Cause:

PG&E's GRC forecast is activity-based. PG&E therefore does not represent the total cost of straight time labor for all work PG&E performs as part of the GRC. The GRC includes the portion of PG&E's total costs that are associated with GRC activities. While PG&E may have envisioned recovering some of its straight time labor through other funding mechanisms, and thus reduced its 2017 GRC forecast to account for these other known sources, in 2017, PG&E would not have reduced its GRC forecast of

straight time labor to account for wildfire mitigation activities as PG&E's WMP was not approved until 2019.

Effect:

Total straight time internal labor costs included in PG&E FRMMA and WMPMA accounts equaled $10.66M between January 1, 2018 and September 30, 2020. Examples of internal labor categories with straight time labor costs already captured in the adopted GRC include:

- Electric Activity Charge – Type A ($2,184,622)
- Estimating – internal ($3,916,284)
- Indirect labor – electric ($2,142,489)
- Paid time off ($1,281,446).

Recommendation:

PG&E should not be compensated for its straight time labor costs assigned to the wildfire memorandum accounts between 2018 and 2020 as they are not incremental.

Management Response:

Please see the response to Question 1 for PG&E's explanation of straight time labor costs being incremental.

PG&E RESPONSE FINDING 3

FINDING 3 THREE CAPITAL COST AREAS RECORDED IN WILDFIRE MITIGATION MEMORANDUM ACCOUNTS SHOULD NOT BE CONSIDERED INCREMENTAL COSTS BASED ON THEIR SIMILARITY TO 2017 GRC-FUNDED AMOUNTS

Condition:

We identified three capital cost areas, totaling $35,912,300, included in the database provided by PG&E to Crowe, which were coded to wildfire mitigation memorandum accounts where the costs should not be considered incremental as they were for general work areas that should have been completed as part of the 2017 GRC:

- MWC 59 – Install animal abatement (2019 through year to date 2020); $21,661,980 (coded to FRMMA). For context, we found the following:
  - The 2017 GRC projected animal abatement capital costs in MWC 08, but no actual amounts were recorded by PG&E into this MWC for 2017 through 2020. The 2017 GRC projected animal and bird guards in MWC 49, but no actual amounts were recorded by PG&E into this MWC for 2017 through 2020.
  - The 2017 GRC projected $6.3M of animal abatement capital costs for 2017 to 2019 in MWC 48 (based on completing 30 substations per year between 2017 and 2019 at $70,000 per substation). At the time the 2017 GRC was prepared, PG&E indicated that the need for animal abatement was decreasing as 1) over 120 had been mitigated and 2) engineering standards factor in new animal abatement measures. PG&E subsequently recorded $5.32M of actual animal abatement costs between 2017 and 2020 as funded by the 2017 GRC in MWC 48, $982,000 below the 2017 GRC projection. We could identify only 22 sites where PG&E conducted animal abatement substation work between 2017 and 2020 with estimated average costs of $241,000 per substation. This is well over the original $70,000 unit cost contemplated in the 2017 GRC.
  - In its WMCE application, PG&E indicated that PG&E performed incremental substation animal abatement work, which was captured in MWC 59. The WMCE identified that in 2019, 55 substations needed animal replacements, and upgrades were made at 19 sites, with the remaining 36 substations planned for 2020. The WMCE identified also that in 2019, 16 substation assets needed just-in-time replacements, and 4 were completed while 12 remained for 2020. Total animal abatement costs incurred in the WMCE for 2019 were $9.4M at an average cost of $411k per substation, more than six times the original 2017 GRC estimate.
  - The above data shows that PG&E underspent on its 2017 budget and fell well below its target completion of 30 animal abatement substation upgrades per year from 2017 to 2019 based on much higher unit cost per substation. PG&E then subsequently has requested incremental recovery of similar animal abatement work through the WMCE application at a significantly higher per unit cost.
- MWC 07 – Pole management/replacement (2019 through year to date 2020); $4,359,160 (coded to the FRMMA)

- MWC 49 – Fuse replacements, line sensors (2019 through year to date 2020); $9,891,160 (coded to FRMMA)

Cause:

As there is no retroactive true up of adopted GRC costs and the actual spend levels at the MWC level, PG&E was not obligated to complete these specific GRC funded wildfire mitigation efforts to the levels originally projected in the 2017 GRC.

Effect:

These capital costs categories are very similar to those capital cost categories adopted in the 2017 GRC and are therefore should be treated like any other 2017 GRC cost "overrun". Also due to the increased cost per unit identified above for MWC 59 (animal abatement), there is a shifting of the much larger unit cost into the FRMMA for which PG&E is seeking incremental recovery for as part of the WMCE.

Recommendation:

PG&E should not be compensated for these $35,912,300 in wildfire mitigation capital expenditures requested as part of the WMCE application and consider these costs as costs non-incremental costs incurred in excess of 2017 GRC adopted imputed amounts.

Management Response:

The memorandum accounts referenced above function to provide a mechanism to address the unpredictable nature of the wildfires in California. These accounts are consistent with the cost recovery practices established by the California Public Utility Commission, as outlined below in the PG&E Advice Letter 5419-E approved by the CPUC's Energy Division. The letter states that:

1) FRMMA (wildfire memorandum account) will track costs incurred for fire risk reduction that are not otherwise covered in the utility's revenue requirement.

2) Public Utilities Code Section 8386 states: "Each electrical corporation shall establish a memorandum account to track costs incurred for fire risk mitigation that are not otherwise covered in the electrical corporation's revenue requirements."

The volume of costs contemplated in the 2017 GRC were forecast using available information and are unpredictable by nature. Not considering wildfire costs as incremental or "non-incremental" is contrary to utility cost recovery practices established by the California Public Utility Commission.

The costs under review in this audit are incremental because the activities are entirely new activities not included in prior GRCs. Demonstrative of this conclusion, the 2017 GRC (which covered 2017-2019) used 2014 recorded amounts as the "base year" and was filed in 2015, several years before PG&E substantially reassessed its wildfire mitigation work in 2018 to implement new programs like enhanced vegetation management (EVM) to respond to wildfire mitigation requirements under Senate Bill 901, enacted in September 2018.

Crowe identifies the following programs as potentially non-incremental because they are similarly named to prior-existing programs: (1) Animal Abatement, (2) Pole Management/Replacement, and (3) Fuse Replacements and Line Sensors. Although the programs are similarly named, they are substantially different or are driven by enhanced inspections, which is a wholly new program and mechanism for identifying work. Therefore, the programs are incremental.

The following table and bullet points below provide additional information explaining the incrementality of these programs as recorded in the FRMMA/WMPMA.

Scope of Work	MWC	MAT	Cost Recovery Mechanism	Incremental Work requirements
Substation animal abatement	48	48X	2017 GRC	N/A
	59	59F	FRMMA/WMPMA	Replacements resulting from enhanced inspections in tier 2 and tier 3 HFTDs, using an enhanced inspection checklist that focused on wildfire specific elements
Electric Distribution Pole Management	07	All	2017 GRC	N/A
	07	07D, 07O	FRMMA/WMPMA	Replacements resulting from enhanced inspections in tier 2 and tier 3 HFTDs, using an enhanced inspection checklist that focused on wildfire specific elements
Fuse replacements and line sensor	49	49I, 49C	2017 GRC	N/A
Non-exempt fuse replacement	2A	2AP	FRMMA/WMPMA	Replacement of existing primary line equipment such as fuses and cutouts with equipment that has been certified by CAL FIRE as low fire risk

- Animal Abatement – Wildfire memo account-eligible substation capital costs were booked to MAT code 59F. This work was completed after being tagged in connection with the enhanced inspection program, which is an incremental program to the 2017 GRC. That is, but for the enhanced inspection program inspections, the MAT code 59F animal abatement work would not have been identified or completed. In contrast, animal abatement work funded in MWC 48 through the 2017 GRC involves substations not in HFTDs, and involved only specific substation

equipment types. The animal abatement tag work booked to MAT 59F involved multiple scopes of substation capital work not funded or completed in MWC 48:

- Animal abatement
- Other Capital Replacement (Insulators, battery, bushings, combustible stairs, breakers replacements)

Animal abatement and replacement of the aforementioned equipment types has been determined to be an ignition threat at the substation.

In addition, PG&E experienced higher than forecasted unit cost for this work primarily due to two driving factors (1) change in best practices/standards requiring custom design materials and (2) increased scope to encompass more asset types requiring abatement (i.e., switches)

- Pole Management/Replacement – This is work that also was completed after being tagged in connection with the enhanced inspection program, which is an incremental program to the 2017 GRC. That is, but for those inspections this pole management/replacement work would not have been identified or completed.

  This work refers to the identification and replacement of broken, damaged, or decayed distribution equipment, including conductors, connectors, crossarms, insulators, transformers, and poles. Because of the more aggressive wildfire mitigation measures included in our 2019 WMP, unit volume significantly increased over what was originally forecasted in the 2017 GRC for Tier 2 and Tier 3 HFTD areas causing PG&E to incur significantly more in capital expenditures for this work in 2019 in Tier 2 and Tier 3 HFTDs.

- Fuse Replacements – As stated in 2020 WMCE application testimony:

  > Replacement of Non-Exempt Equipment refers to the replacement of existing primary line equipment such as fuses and cutouts with equipment that has been certified by CAL FIRE as low fire risk and therefore exempt from vegetation clearance. This replacement work eliminates overhead line equipment and devices that may generate exposed electrical arcs, sparks or hot material during their operation. In the 2017 GRC, PG&E forecasted a modest amount to do that routine work. In 2018, we significantly expanded the program to replace fuses.

The incrementality of these expenditures also was validated by an independent third-party auditor. PG&E retained Ernst & Young (E&Y) to audit its 2019 wildfire costs for incrementality. E&Y determined that PG&E's costs submitted in the 2020 WMCE for FRMMA/WMPMA were wholly incremental to PG&E's GRC costs. Further, the fact that PG&E substantially overspent its 2019 GRC adopted costs demonstrate, again, that all OH/ST included in the GRC had been spent. Indeed, as E&Y stated in the audit

> Based on our holistic analyses, the company appears to have overspent its 2019 imputed balance by approximately $2.2 billion. We noted within the RSAR data that of the approximately $2.2 billion in overspend, $1.6 billion is attributed to the Memorandum Accounts. Additionally, the Company appears to have overspent

its GRC above and beyond the amount of the Memorandum Accounts by a total of approximately $600 million.[1]

[1] See PG&E's 2020 WMCE Testimony, pp.8-AtchA-27

PG&E RESPONSE FINDING 4

FINDING 4 PG&E IDENTIFIED $799 MILLION IN CAPITAL COSTS IN EXCESS OF GRC ADOPTED IMPUTED AMOUNTS FOR 2017 TO 2020 WHICH PG&E SHOULD NOT LATER CLAIM AS INCREMENTAL COSTS

Condition:

In the 2017 GRC, the CPUC adopted capital costs of $4.688B for the 2017 to 2019 period. In the supporting database provided by PG&E to Crowe, PG&E coded a total of $5.326B of capital costs for the 2017 to 2019 period as GRC-funded, $542M above the adopted 2017 GRC amount. **Exhibit C-10** in **Appendix C** summarizes this excess spending.

In the 2020 GRC, the CPUC adopted capital costs of $2.217B for 2020. In the supporting database provided by PG&E to Crowe, PG&E coded a total of $2.475B of capital costs for the 2017 to 2019 period as GRC-funded, $257M above the adopted 2020 GRC amount. **Exhibit D-2** in **Appendix D** summarizes this excess spending.

Criteria:

The purpose of the Wildfire Mitigation Plan Memorandum Account (WMPMA) is to record, pursuant to Senate Bill (SB) 901 (Public Utilities Code Section 8386.4 (a)) and the Wildfire Mitigation Plan (also known as the Wildfire Safety Plan) approved by the Commission, incremental costs incurred to implement an approved wildfire mitigation plan that are not otherwise recovered in PG&E's adopted revenue requirements. Such costs may include expense and capital expenditures for activities including but not limited to: operational practices, inspection programs, system hardening, enhanced vegetation management, enhanced situational awareness, public safety power shutoffs, and alternative technologies. Costs recorded to the WMPMA will not include costs approved for recovery in PG&E General Rate Cases (GRCs) or recovered through PG&E's Catastrophic Event Memorandum Account (CEMA), Fire Hazard Prevention Memorandum Account (FHPMA), Fire Risk Mitigation Memorandum Account (FRMMA), or other cost recovery mechanisms.

Cause:

PG&E capital costs exceeded adopted imputed 2017 GRC amounts in several areas, including for example:

- MWC 7 - Electric Distribution Install/Replace Overhead (OH) Poles, $344M above adopted imputed amount
- MWC 10 - Electric Distribution Work Requested by Others (WRO) General, $123M above adopted imputed amount
- MWC 17 - Electric Distribution Routine Emergency, $164M above adopted imputed amount
- MWC 59 - Electric Distribution Substation Emergency Replacements, $90M above adopted imputed amount

- MWC 2A - Electric Distribution Preventative Maintenance (EDPM) OH, $129M above adopted imputed amount PG&E capital costs exceeded adopted imputed 2020 GRC amounts in several areas, including for example:

PG&E capital costs exceeded adopted imputed 2020 GRC amounts in several areas, including for example:

- MWC 7 – Electric Distribution Install/Replace Overhead (OH) Poles, $137M above adopted imputed amount
- MWC 17 – Electric Distribution Routine Emergency, $64M above adopted imputed amount
- MWC 49 – E Dist Reliability Circuit/Zone, $44M above adopted imputed amount.

Effect:

Given the similarity of these cost areas to those captured via the wildfire mitigation memorandum account, there is the potential for these costs to later be claimed as incremental in a subsequent proceeding.

Recommendation:

PG&E's $799M in capital costs should not be considered incremental given that PG&E coded them to planning orders that were to be completed as part of the 2017 GRC. These costs should not be later requested as incremental costs in future wildfire mitigation balancing accounts.

Management Response:

PG&E reads this condition to mean that PG&E should track all costs in a way to ensure they are recovered in the proper mechanism. PG&E does so by tracking costs in individual orders and planning orders. For any new activity, new orders are created and tagged with the appropriate recovery mechanism. In the case of wildfire costs, new orders were tagged with a Master Funding ID (MFID) of "Other" and Balancing Account Receiver Cost Center (BARCC) for FRMMA/WMPMA. Those are the orders that were requested for recovery in the 2020 WMCE. Costs booked to orders that were tagged with MFID of "GRC" are not being sought for cost recovery in the GRC. As stated in PG&E's 2020 WMCE testimony:

> To adhere to the activity-based forecasting methodology described above, and to ensure that Wildfire mitigation costs are properly accounted for, all costs for which we seek recovery in a cost recovery application are tracked in distinct orders that are tagged with identifiers different from those that are included in our GRC or other cost recovery mechanisms. This is applicable to all costs incurred, and, as such, all costs captured in these orders are incremental to other recovery mechanisms' revenues.
>
> All PG&E orders are linked to distinct regulatory filings. The costs and forecasts for activities associated with the GRC are only included in the GRC filing process, and, similarly, the costs and forecasts for activities associated with a specific memo account like FRMMA or WMPMA are only included in the filing process for that memo account. Because of this linkage, any forecasted or recorded cost is

> addressed through a single regulatory process. This distinct order-tracking methodology ensures that duplicative recovery is avoided.[1]

The 2020 WMCE testimony referenced above explains that PG&E's internal accounting system differentiates between WMCE and GRC costs, and GRC costs are not requested outside the GRC process. Additionally, as part of the GRC process, expenses over or underspent are typically not trued up; however, capital costs are trued up in the subsequent GRC filing.

To note, starting with the 2020 GRC, if any GRC costs for certain wildfire MWCs that overlap the WMPMA and FRMMA are below the imputed amounts, PG&E will reduce its recovery of incremental costs consistent with the methodology for ensuring incrementality (referred to as "filled the bucket") introduced in the 2023 GRC. These include costs that are not part of the WMBA recovery mechanism. A description of this method is included in PG&E's 2023 GRC testimony

> To further confirm and demonstrate that PG&E is only seeking recovery of incremental costs recorded in the WMPMA and FRMMA, PG&E developed and implemented a methodology that ensures that 2020 GRC imputed adopted amounts are fully utilized. As explained below, it simply involves reducing PG&E's FRMMA and WMPMA cost-recovery request for certain activities (identified by MAT code) by the amount of any unspent GRC imputed adopted funds for those particular activities. PG&E refers to the methodology to determine incrementality as the "fill the bucket" methodology. PG&E believes this methodology provides a straightforward, quantifiable way to demonstrate that costs recorded to the FRMMA and WMPMA and requested here are incremental.[2]

Additionally, in the Exit Interview on August 26, 2021, Crowe expressed their understanding that the RSAR only includes GRC activity, and therefore, all the costs reviewed during the audit are GRC costs. That is an incorrect understanding. The RSAR reports all costs, including those recovered in the GRC and those tracked and recorded in other discovery mechanisms. Indeed, the 2020 RSAR states that it includes non-GRC costs from the FRMMA and WMPMA.[3]

The incrementality of these expenditures also was validated by an independent third-party auditor. PG&E retained Ernst & Young (E&Y) to audit its 2019 wildfire costs for incrementality. E&Y determined that PG&E's costs submitted in the 2020 WMCE for FRMMA/WMPMA were wholly incremental to PG&E's GRC costs. Further, the fact that PG&E substantially overspent its 2019 GRC adopted costs demonstrate, again, that all OH/ST included in the GRC had been spent. Indeed, as E&Y stated in the audit

> Based on our holistic analyses, the company appears to have overspent its 2019 imputed balance by approximately $2.2 billion. We noted within the RSAR data that of the approximately $2.2 billion in overspend, $1.6 billion is attributed to the Memorandum Accounts. Additionally, the Company appears to have overspent

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[1] See PG&E's 2020 WMCE Testimony, p. 8-9

[2] See PG&E's 2021 GRC Testimony, p. 2-atchA-11

[3] See PG&E's 2020 RSAR, p. 1-3 lines 10-14

its GRC above and beyond the amount of the Memorandum Accounts by a total of approximately $600 million.[4]

[4] See PG&E's 2020 WMCE Testimony, pp.8-AtchA-27

PG&E RESPONSE FINDING 5

FINDING 5 INCREMENTAL 2020 VM COSTS COULD NOT BE SUPPORTED BECAUSE: 1) SEVERAL SOURCES IDENTIFY DIFFERENT GRC ADOPTED VM COSTS, AND 2) ACTUAL VM COSTS SIGNIFICANTLY EXCEEDED GRC ADOPTED VM COSTS

Condition:

We found two areas of concern related to determining which 2020 Vegetation Management (VM) expenses are incremental and should be captured in the Vegetation Management Balancing Account (VMBA). These two areas are as follows:

1. Variation in PG&E's understanding of the total 2020 VM amount adopted by the CPUC as part of the 2020 General Rate Case (GRC). Depending on the source documents we reviewed, we found significant variability in this adopted 2020 VM cost.
2. PG&E's actual 2020 VM spend levels significantly exceeded the 2020 VM amounts adopted by the CPUC in the 2020 GRC.

Regarding Item #1 above, as shown in the table below, we identified four sources with four different figures representing total GRC adopted 2020 VM costs as follows:

A. $548M, identified in the Table 3-1 of the 2020 Risk Spending Accountability Report (2020 RSAR), submitted March 31, 2021

B. $607M, identified in several places within Exhibit 4 to the 2020 GRC (assumed to be the final CPUC approved amount)

C. $866M, identified in Table 3-3 of the 2020 RSAR

D. $1.236B, identified by PG&E in response to our data requests for this project.

The variation between the lowest and highest 2020 VM adopted figure is $688M ($1.236B less $548M).

Major Work Category (MWC)	MWC Description	Maint. Activity Type (MAT) Code	Program Description	A. 2020 Imputed Adopted GRC Amount (Source: 2020 RSAR, Table 3-1) ($1,000s)	B. 2020 GRC Amount (Source: 2020 GRC; Exhibit 4 Table 1-6. Table 2A-10, Table 7-3, Table 7-5, Table 7-6) ($1,000s)	C. 2020 Imputed Adopted GRC Amount (Source: 2020 RSAR, Table 3-3) ($1,000s)	D. 2020 GRC Amount (Source: PG&E Response to Crowe Data Request) ($1,000s)
HN	E Dist Tree Trim Bal Acct		Routine Distribution	$548,012	$229,286	$548,012	$693,148
IG	Various Balancing and Memo Accounts	IGI	Tree Mortality	$0	$0	$0	$91,927
IG	Various Balancing and Memo Accounts	IGJ	Enhanced Vegetation Management	$0	$378,106	$318,742	$451,390
Total				$548,012	$607,392	$866,754	$1,236,466

PG&E did not provide an explanation for the differences between the different 2020 GRC adopted figures noted in the above table.

Regarding Item #2 above, we provide two sources of PG&E's actual reported 2020 VM costs in the table below. PG&E reported $1.279B of 2020 VM spend in the 2020 RSAR, and $1.247B of 2020 VM spend in the cost database furnished to Crowe for this project.

Using the $1.247B cost figure for actual 2020 VM costs, and depending on which of the four adopted figures in the above table is used, PG&E's actual costs exceeded the GRC adopted amount by as little as $10M and as much as $699M.

Major Work Category (MWC)	MWC Description	Maint. ActivityType (MAT) Code	Program Description	Total Actual 2020 VM Costs (Source: 2020 RSAR, Table 3-3, pages 3-8 and 3-9 and Table 7-2, page 7-3) ($1,000s)	Total Actual 2020 VM Costs (Source: PG&E Response to Crowe Data Request ($1,000s)
HN	E Dist Tree Trim Bal Acct		Routine Distribution	$736,320	$707,984
IG	Various Balancing and Memo Accounts	IGI	Tree Mortality	$87,803	$87,973
IG	Various Balancing and Memo Accounts	IGJ	Enhanced Vegetation Management	$454,705[(a)]	$451,390
Total				$1,278,828	$1,247,347

(a) Note: in the 2020 RSAR, PG&E appears to have reported the $454,705M figure twice in both Line Number 99 and Line Number 100.

Criteria:

PG&E is allowed to recover VM costs in excess of GRC adopted VM amounts in the VMBA. Consequently, actual VM costs and GRC adopted costs must be accurately determined and validated so there is no ambiguity as to which VM costs are incremental and can be recovered through the VMBA.

Specifically, as stated in Table 7-2 of the 2020 RSAR, the purpose of the VMBA is to record the difference between the actual Routine and Enhanced Vegetation Management (EVM) expenses and amounts adopted in PG&E's General Rate Case (GRC) or other base revenue proceeding.[1] The VMBA account is comprised of two subaccounts:

1. The Main Account tracks actual Routine and EVM expenses up to 120 percent of adopted amounts.[2]
2. The Reasonableness Review Subaccount tracks spending above the reasonableness threshold and actual tree mortality costs, for which there is currently no adopted amount. PG&E may file a separate application seeking approval of any costs in the Reasonableness Review Subaccount—where actual costs exceed 120 percent of the adopted amount. Upon approval, amounts will be transferred for recovery from customers.

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1 The VMBA was created in compliance with D.00-02-046. In D.20-12-005, the Commission authorized PG&E to modify the VMBA to be a two-way balancing account, with a reasonableness review requirement for spending above 120 percent of adopted amounts (reasonableness threshold). In D.20-12-005, the Commission also required PG&E to track actual costs related to tree mortality work for which there is currently no adopted amount. PG&E may amend the VMBA to include additional Vegetation Management (VM) programs.

2 Under collections in the Main Account will be determined through the Distribution Revenue Adjustment Mechanism (DRAM) in the Annual Electric True-Up (AET), or through another Tier 2 Advice Letter (AL) as authorized by the Commission. Overcollections will be returned to customers through a regularly scheduled AET or other rate change AL at the end of the rate case cycle or as otherwise authorized by the Commission.

Cause:

PG&E has identified several areas where VM costs increased beyond those originally contemplated in the 2020 GRC. These areas include:

- Unit cost increases, partially driven by SB 247 timing. The passage of Senate Bill (SB) 247 in October 2019 required all qualified line clearance tree trimmers to be paid no less than the prevailing wage rate for a first period apprentice electrical utility lineman as determined by the Director of Industrial Relations, which increased VM labor costs 49 percent starting in 2019.
- Significantly higher units completed than previous years (carryover of units from 2019 due to pause in routine VM work to complete the EVM mileage) paid on a Time and Materials (T&M) basis to complete the work.
- Cash basis to accrual transition.
- Bringing ~20k poles into compliance that previously had agreements with customers to maintain compliance. These locations were not being properly maintained by the customers and required T&M contracts beyond lump sum contracts.
- Restructuring of the safety personnel ratio to tree crews.

Effect:

The difference between the $1.247B in actual 2020 VM costs, reported by PG&E in the database furnished for this project, and the $548M of imputed adopted 2020 VM costs (identified in Table 3-1 of the 2020 RSAR) is $699M. This $699M figure represents a maximum amount of questioned costs related to this finding.

Without adequate verification as to 1) the amount and assumptions related to 2020 VM costs adopted in the 2020 GRC, and 2) whether PG&E's actual 2020 VM costs are incremental to the adopted 2020 VM baseline amounts, PG&E may recover excess 2020 VM costs in the VMBA. Further, without a focused review of the validity of the causes noted above for the increased 2020 VM costs, PG&E may recover excess VM costs in the VMBA. In either case, Energy Safety could approve incremental 2020 VM costs within the VMBA as opposed to treating these additional incurred costs as "overruns" to the 2020 VM GRC adopted values and thus as non-recoverable through the VMBA.

Recommendation:

PG&E should provide sufficient justification, documentation, and rationale as to why the $699M in 2020 VM costs should be considered incremental to the $548M in GRC adopted 2020 VM costs and thus captured in the VMBA.

Management Response:

RESPONSE:

PG&E will be filing a 2021 WMCE application by year end which is the appropriate venue for the recovery of 2020 VM costs.

PG&E would like to clarify and correct 2020 Imputed Adopted amount for Vegetation Management, MWC HN. The CPUC's final decision[3], section 7.2.5.1, adopted $548.013 million to fund both the Routine and Enhanced VM programs. Note: imputed and adopted refer to the amount related to these programs included in the final GRC decision's revenue requirement, i.e., the amount already recovered in the GRC.

The following explains the discrepancies in the table provided above and copied below for reference:

Major Work Category (MWC)	MWC Description	Maint. Activity Type (MAT) Code	Program Description	A. 2020 Imputed Adopted GRC Amount (Source: 2020 RSAR, Table 3-1) ($1,000s)	B. 2020 GRC Amount (Source: 2020 GRC; Exhibit 4 Table 1-6. Table 2A-10, Table 7-3, Table 7-5, Table 7-6) ($1,000s)	C. 2020 Imputed Adopted GRC Amount (Source: 2020 RSAR, Table 3-3) ($1,000s)	D. 2020 GRC Amount (Source: PG&E Response to Crowe Data Request) ($1,000s)
HN	E Dist Tree Trim Bal Acct		Routine Distribution	$548,012	$229,286	$548,012	$693,148
IG	Various Balancing and Memo Accounts	IGI	Tree Mortality	$0	$0	$0	$91,927
IG	Various Balancing and Memo Accounts	IGJ	Enhanced Vegetation Management	$0	$378,106	$318,742	$451,390
Total				$548,012	$607,392	$866,754	$1,236,466

- Column B in the table above references PG&E's Opening Testimony, which was its ask for funding from the Commission. Note that all the ask was in MWC HN and not in IG. The CPUC's final decision section 7.2.5.1 spells out the adopted amount as $548.013 million.

- Column C refers to PG&E's 2020 RSAR Table 3-3. That table was not meant to be additive. In the case of MWC HN, see below, line 80 is the total spend for Vegetation Management in MWC HN and line 81 is that portion that applies to risk mitigations M16 and M8 (note that this was in MWC HN not in MWC IG)

Line No.	MWC	MWC Name	MAT	MAT Name	RAMP Risk Name	RAMP Mitigation Name	2020 GRC Testimony Reference	2020 Imputed Adopted Costs (A)
80	HN	Vegetation Management Balancing Account	N/A	Not assigned	SRM Total	SRM Total	4-7	$ 548,012.6
81	HN	Vegetation Management Balancing Account	N/A	Not assigned	RAMP Risk: WF Mitigation RAMP Risk: DOGP Mitigation	M16 - Enhanced VM M8- Enhanced VM	4-7	$ 318,742.3

[3] See: http://prccappiiswc002/Docs/GRC-2020-PhI/Final-Decisions/CPUC/2020/GRC-2020-PhI_Final-Dec_CPUC_20201203_D-20-12-005_633375.pdf

- Column D refers to PG&E's response to data request #14 Question 2e. The table PG&E provided in that response was for actual 2020 spend (included in the 2023 GRC) and not imputed form the prior rate case.

PG&E RESPONSE FINDING 6

FINDING 6 INCONSISTENT VEGETATION MANAGEMENT COST TRACKING METHODS POSE CHALLENGES FOR TRACKING INCREMENTAL ROUTINE VEGETATION MANAGEMENT COSTS

Condition:

Based on our review of actual cost operating expenditure data provided by PG&E, we observed that PG&E's routine tree trimming costs increased materially in 2020 from prior years.

Year	Total VM Costs Identified as Routine Tree Trimming Costs ($1,000s)
2017	$152,594
2018	222,645
2019	299,227
2020 (year to date)	653,746

In our review of routine VM costs, we identified that PG&E recorded costs into regions. Within each region, we noted that PG&E recorded certain routine tree timing costs to a specific location at the order level, but also used a single order number to record a large portion of presumably aggregated routine tree trimming costs. PG&E's use of a single order to record routine tree trimming costs gives the impression of potential double counting of costs with other similar costs that are recorded at the order level for a specific location.

Criteria:

The purpose of the Wildfire Mitigation Plan Memorandum Account (WMPMA) is to record, pursuant to Senate Bill (SB) 901 (Public Utilities Code Section 8386.4 (a)) and the Wildfire Mitigation Plan (also known as the Wildfire Safety Plan) approved by the Commission, incremental costs incurred to implement an approved wildfire mitigation plan that are not otherwise recovered in PG&E's adopted revenue requirements. Such costs may include expense and capital expenditures for activities including but not limited to: operational practices, inspection programs, system hardening, enhanced vegetation management, enhanced situational awareness, public safety power shutoffs, and alternative technologies. Costs recorded to the WMPMA will not include costs approved for recovery in PG&E General Rate Cases (GRCs) or recovered through PG&E's Catastrophic Event Memorandum Account (CEMA), Fire Hazard Prevention Memorandum Account (FHPMA), Fire Risk Mitigation Memorandum Account (FRMMA), or other cost recovery mechanisms.

Cause:

PG&E indicated to us that site specific orders allow for the planning and tracking of costs by region. Each region has its own unique profile where circuits are analyzed to determine the amount of tree work required and the budget is aligned accordingly (e.g., defined scope contracts, VMI, work verification). PG&E indicated to us that single large orders track the costs for work that has not been planned by region, or is system-wide, and supports the program as a whole (e.g., IT, admin/program support).

Effect:

PG&E's VM costs are not easily tracked to a specific location within a region if aggregated into a single regional tree trimming order number. Also, there is the potential for duplication of activities between aggregated orders for a region and individual orders opened for work within the region.

Recommendation:

PG&E should provide the following:

- Description of the differences between single large orders and site specific orders (by region) associated with 2020 VM costs.
- More granular presentation of routine tree trimming costs at the order level, by region and location.

Management Response:

Vegetation Management (VM) primarily tracks costs for programs at the program level and the region level. The tracking of costs is based upon how costs are incurred and how that best informs cost analysis. For example, Information Technology costs are tracked at the program level as those costs support overall operations and are not driven by a specific region. The majority of tree trimming costs are tracked at the divisional level. In limited cases, VM uses individual order numbers on specific activities, where it is necessary to enable other PG&E lines of business to charge costs, such as when a line needs to be de-energized in order to execute VM work safely. VM has successfully used the divisional level cost tracking, along with the project-level tree work detail, to structure and negotiate lump sum contract bundles with contractors for PG&E's 2021 Distribution Routine VM program. These bundles are broadly aligned with VM's divisional structure. VM recognizes the potential for duplication between aggregated orders for a region and individual orders opened for work within the region and, as such, has chosen to limit the use of individual site-specific orders to specific activities, such as when a line needs to be de-energized in order to execute VM work safely. In this way, VM seeks to simplify cost charging guidelines to the contractor and limit the risk of work being charged to more than one order.

Our financials roll up at the highest level to a planning order, which are prefaced with the number 50 or 52. This preface makes a planning order distinguishable from an actual order where costs are actually incurred. Actual orders roll up to a planning order. While actuals orders have been created by both region and division, pre-inspection (PI) and tree work costs are expensed to the region/ division in which the work occurred. Costs that are expensed to a specific location or site occurs when the work being completed is associated with specific circumstances, such as when a line needs to be de-energized in order to execute VM work safely. This work requires site specific order numbers given how the work requests/ orders gets generated.

PG&E RESPONSE FINDING 7

FINDING 7 WILDFIRE MITIGATION COST CATEGORIES PROVIDED IN WMPS DO NOT ALIGN WITH HOW WILDFIRE MITIGATION COSTS ARE CATEGORIZED AND ADOPTED AS PART OF GRCS, MAKING IT DIFFICULT TO MONITOR INCREMENTAL WILDFIRE MITIGATION COSTS

Condition:

In the past, PG&E Wildfire Mitigation Plans (WMPs) have included cost information at the following levels:

2019 Plan

- Plan section and program strategy/area (estimated-actual 2019 costs). These costs were presented separately for both capital and operating expenditures.

2020 Plan

- Wildlife mitigation activity (2019 actual spend, 2020 spend target), organized into situational awareness and forecasting, grid design and system hardening, asset management and inspections, and vegetation management and inspection. These costs were presented as combined for both capital and operating expenditures.

2021 Plan

- WMP category (2020 WMP planned, 2020 actual, 2021 planned, and 2022 planned spend). These costs were presented as combined for both capital and operating expenditures.

We find that approved PG&E WMP capital and operating costs provided at these levels alone are inadequate for purposes of reconciling these costs to those adopted as part of the GRC process. During the course of the GRC process, PG&E provides costs at the Major Work Category (MWC) and Maintenance Activity Type (MAT) levels separately for capital and operating expenditures. However, as noted above for the 2019 through 2021 WMPs costs are only provided at the general program area level or activity level, and for 2020 and 2021 WMPs the costs are aggregated for capital and operating expenditures.

Criteria:

WMP requirements are delineated in the following documents:

- 2019 WMP – D1905036 Guidance Decision on 2019 Wildfire Mitigation Plans.
- 2020 WMP – RES WSD-002 Final Guidance Resolution, and Guidance Appendices.
- 2021 WMP – 2021 WMP Guidelines Template.

Cause:

The CPUC has not required capital and operating expenditures delineated to the MWC and MAT account code levels as part of WMP content requirements Additionally, WMP

content requirements are evolving as Energy Safety gains more experience and knowledge of program needs.

Effect:

Energy Safety will have difficulty reconciling future PG&E wildfire mitigation related capital and operating expenditures approved as part of the WMPs to those funded through the GRC process.

Recommendation:

As part of the WMP process, PG&E should provide wildfire mitigation separately for capital and for operating expenditures at the MWC and MAT code levels for easier reconciliation to capital and operating costs adopted as part of the GRC process.

Management Response:

PG&E's accounting system has evolved over many decades in conjunction with the California Public Utilities Commission's rate case process and alignment with PG&E's investment plan. The 2020 Wildfire Mitigation Plan (WMP) was the first time that we were required to break down our wildfire mitigation programs into the list of initiatives as defined in the WMP, notwithstanding that not all of our programs operationally correspond to the WMP-defined initiatives. To adhere to the WMP template filing requirements, we worked to fit our programs into the list of initiatives as required by the Wildfire Safety Division (now referred to as Energy Safety) to the best of our ability by using a variety of allocation methodologies and assumptions to translate our investment plan into the format of the templates.

Energy Safety also provides updates to their templates for PG&E to fill out every year we file the Wildfire Mitigation Plan, and, as such, the 2021 WMP template was different from the 2020 WMP template. Based upon how the new templates are structured, we worked to fit our programs into these initiatives in the 2021 WMP to the best of our ability by using a variety of allocation methodologies and assumptions to translate our investment plan into the WSD defined list of initiatives.

PG&E RESPONSE FINDING 8

FINDING 8 TIME REPORTING POLICIES AND PROCEDURES SHOULD BE IMPROVED, PARTICULARLY TO ADDRESS VEGETATION MANAGEMENT TIME REPORTING CONTROLS AND OVERSIGHT

Condition:

In our inquiries related to internal controls, over the past year, PG&E employees identified 10 instances of fraud in the area of time reporting, adding to our concerns over time reporting practices. We obtained and reviewed PG&E's time reporting policy and found that it didn't provide sufficient details regarding how, whom, and when PG&E managers review and approve time entries by employees to ensure that they are coded to proper accounts, in particular to distinguish between GRC funded activities and memorandum account activities.

Additionally, we found that PG&E developed a separate time reporting system which third-party vendors working in vegetation management use to record their time. This ad-hoc system is outside of PG&E's own time/expense reporting system (Concur) and upon our inquiry it was somewhat difficult for PG&E to obtain supporting records from this ad hoc system. PG&E had created the system so that it could promptly pay its vendors as traditional PG&E invoice/payment processes took too long to pay vendors.

Criteria:

PG&E has a time reporting standard, the purpose of which is to address the rules for time reporting for PG&E non-represented employees, both nonexempt and exempt. PG&E leaders are responsible for ensuring compliance with this standard.

Cause:

Given that a large portion of PG&E's wildfire mitigation related work is programmatic and not project-specific, PG&E management may be less focused on developing policies and procedures that are directed toward reviewing/scrutinizing time charges made by PG&E employees and vendors who work on this programmatic work, in order to ensure accurate time reporting to GRC or wildfire mitigation memorandum account planning orders.

Effect:

There is the potential that work that was targeted for GRC funding, is incorrectly charged to wildfire mitigation charge codes.

Recommendation:

PG&E should enhance its documentation of time reporting policies and procedures, particularly as it relates to the vegetation management system. PG&E should include specifics regarding how account/work codes are set up and approved, how and when employees record time, how PG&E limits work order charges to only those PG&E employees working on a specific work order, and who reviews and approves this time to ensure that it is correctly coded. Additionally, we recommend that PG&E prepare a

separate policies and procedures document for the vegetation management system, including how vendors access and are set up in the system, when vendors report time/charges, which work orders/codes are accessible to vendors, which PG&E employees are approved to review vendor time/charges, and how this vendor data interfaces with PG&E's accounting system and what controls are in place to ensure its reliability.

Management Response:

PG&E provides the following clarifications between the time reporting practices of Vegetation Management Employees and Vegetation Management Contractors.

Time reporting by Vegetation Management (VM) employees:

Employees submit timesheets through the Employee Self Service (ESS) portal. Within that online tool, employees provide an order number for all hours worked. Timesheets, including worked hours and the cost assignment, are reviewed by the employees' direct supervisor. Employees and Supervisors select the appropriate order number based upon VM charging guidelines that are communicated periodically, and at a minimum annually. An excerpt from these charging guidelines is included below and indicates how PG&E uses program-based orders to capture time.

VM Employee Charging Guidelines (Timesheets):

- Charge to a divisional program order where possible and regional program orders when work is regionally based
- When work cannot be directly attributed to a program, e.g., corporate training, code your time to non-billable
- Charge time to program orders based upon the time you spend supporting these specific programs.
- Time can be charged in increments of .5 hrs, but it is not necessary to always allocate to that level of detail.
- If you are devoting significant time supporting work outside of VM. (i.e. System Hardening/ Emergency Response) reach out to your Supervisor for additional charging guidelines

Time reporting by VM Contractor Billing:

VM contractors submit unit or time-based costs directly into the Vegetation Management System (VMS). This invoice submission is supplemented with a time and materials justification form signed by PG&E, timesheets, the work request, and any receipts for pass through costs, as applicable.

All documents are validated by the Central Invoicing Team, Contract Management and local operations to ensure accuracy and that the correct order numbers are being charged. To ensure the accuracy of these orders, they are then sent to the vendors and continue to follow up before payment occurs if the errors are present.

PG&E is seeking to enhance this process, and VM has plans to undertake an internal review of policies and procedures related to employee and contractor time reporting. As

a result of this review, VM will determine and make appropriate updates to the affected policies or procedures.