

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



July 29, 2022

Ms. Carla Peterman
Executive Vice President, Corporate Affairs
Pacific Gas and Electric Company
77 Beale Street
San Francisco, CA 94105

VIA EMAIL: Carla.Peterman@pge-corp.com

**SUBJECT: Pacific Gas & Electric Company
2021 Risk Spending Accountability Report Review**

Dear Ms. Peterman:

The California Public Utilities Commission (CPUC) received the 2021 Risk Spending Accountability Report (RSAR), which Pacific Gas and Electric Company (PG&E, The Utility) filed on March 31, 2022. Energy Division (ED) completed a review of this report.

CONCLUSIONS

The report complies with the guidance outlined in the CPUC's Safety Model Assessment Proceeding (S-MAP) Decision (D.) 19-04-020. The Utility presented imputed adopted, actual spending and units for its reportable general rate case (GRC) programs related to safety, reliability, and maintenance.

PG&E applied the selection criteria for its GRC programs according to D.19-04-020 and included the information required for programs selected for an explanation.¹ The Utility also provided work unit information for programs in which the forecasted cost was derived from unit costs.

PG&E's 2021 RSAR showed an overall 27.0 percent overspending for capital and a 54.4 percent overspending for Operations and Maintenance (O&M). The report details significant overspending (155.7 percent) in Electric Distribution O&M. This report also details a striking similarity to the previous year's underspending in Corporate Services (-97.3 percent) and Human Resources (-51 percent) offsetting a similarly significant capital overspending in Electric Distribution (31 percent) and Shared Services (61.6 percent).²

As with the last few years of reporting, the spending variance in 2021 is like the overspending in the 2020 and 2019 reports, particularly with major work categories related to wildfire management activities. For instance, the O&M category Major Emergencies overspent by \$112 million or 324%, and the O&M category Emergency Preparedness overspent by \$142 million or 207%. On the

¹ RSAR p 1-5.

² RSAR pp 3-2 and 3-3.

capital side, Preventive Maintenance Overhead overspent by \$231 million or 117% and Pole Replacement by \$305 million or 280%.³

ED concludes that PG&E generally met the requirements for this filing. The Utility complied with notice requirements in D.19-04-020, as it was served on the ED Tariff Unit (edtariffunit@cpuc.ca.gov), CPUC's Safety Policy Division, Safety Enforcement Division, and the Public Advocate's Office. PG&E reported spending for its programs related to safety, reliability, and maintenance to conform with D.19-04-020.

ED found that, in general, PG&E complied with requirements to provide variance explanations, authorized work units and program descriptions. ED staff found that PG&E provided authorized and actual work units, when programs had units from the GRC, but did not always provide an explanation when programs did not contain units.⁴ Additional details concerning PG&E's explanations are provided in Attachment A. PG&E provided timely responses to requests for information from CPUC staff.

See [Attachment A](#) for staff review and analysis of selected programs.

D.19-04-020 provides for a method for parties to comment on the report. No party to A.15-05-002/003/004/005 or any of the other proceedings to which PG&E filed their RSAR commented on the report.

RECOMMENDATIONS

PG&E provided explanations and descriptions for the programs or projects in the report⁵ but should improve its efforts to include detailed explanations and list activities in its 2022 report – particularly when work units are not available. Beyond this, and in keeping with the recommendations listed in the ED Review of PG&E's 2020 RSAR, PG&E should follow what the CPUC adopts in Order Instituting Rulemaking (R.)20-07-013, the Order Instituting Rulemaking to Further Develop a Risk-Based Decision-Making Framework for Electric and Gas Utilities.⁶

PG&E should refer to the framework in D.19-04-020, Ordering Paragraph 10 in preparing and submitting future RSARs, including the RSAR for GRC 2022 due on March 31, 2023. PG&E should also file and serve its 2022 RSAR in the most recent proceeding in which costs are imputed (PG&E GRC, A.18-12-009) as well as the 2020 Risk Assessment and Mitigation Phase (RAMP; A.20-06-012) with copies provided to the CPUC's Safety Policy Division, Safety Enforcement Division and Public Advocates Office. The report should include information on how parties can file comments in the most recent open GRC/RAMP proceeding, with copies of the comments mailed to ED Tariff Unit. The report should request parties identify the submissions upon which they are commenting. All comments must follow the RSAR Filing and Review Schedule. PG&E should provide the 2022 RSAR to ED Tariff Unit by emailing the report to edtariffunit@cpuc.ca.gov.

³ D.19-04-020, pp 39, 42-43 and Attachment 2.

⁴ D.19-04-020, p 39 "Where information on risk mitigation program work units authorized and performed is not available, the IOUs must work with ED staff and, as needed, the TWG to appropriately identify these programs and must include in the RSAR general explanations for the lack of inclusion of work unit information for such programs."

⁵ See D.19-04-020 for reporting requirements (p 47) including variance criteria (p 43) and implementation of Public Utilities Code 591 (p37).

⁶ On July 18, 2022, the CPUC issued a proposed decision that contains a list of ED recommendations meant to improve and clarify the RSAR format. See <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M494/K608/494608119.PDF>

Carla Peterman

July 29, 2022

Page 3

If you have any questions or comments, please contact Kevin Flaherty at (415) 703-3842 or kevin.flaherty@cpuc.ca.gov or Jordan Smith at (916) 894-5717 or Jordan.smith@cpuc.ca.gov.

Sincerely,

A handwritten signature in black ink that reads "Leuwam Tesfai". The signature is written in a cursive, slightly slanted style.

Leuwam Tesfai

Deputy Executive Director for Energy and Climate Policy/
Director Energy Division

Enclosure: ATTACHMENT A – Staff Risk Spending Accountability Report Review

cc: Mary Gandesbury, Pacific Gas and Electric
Lauren Hudson, Pacific Gas and Electric
Bruce Kaneshiro, Energy Division
Franz Cheng, Energy Division
Elizabeth La Cour, Energy Division
Service Lists for A.15-09-001, A18-12-009 and A.20-06-012

ATTACHMENT A

Staff Risk Spending Accountability Report Review

STAFF ANALYSIS OF SELECTED PROGRAMS

ED staff made recommendations, such as listing government mandates and explaining the degree to which individual activities contributed to the variances for safety, reliability, or maintenance activities. The results of these inquiries may be found in the sections below. Please note that the Major Work Category (MWC) and Major Activity Type (MAT) abbreviations below were often the only annotation differentiating some line items.

Gas Expense

ED staff reviewed the Gas Expense programs and do not have any noteworthy comments.

Gas Capital

Gas Meter Protection – Capital (MAT 27A)

Spending for this program was \$2.9 million compared to an imputed adopted cost of \$17.3 million, an under expenditure of approximately -83%.

This program provides protection to gas meters primarily through the installation of bollards or barrier posts to protect meters from damage by vehicles. In some instances, conditions do not allow for a bollard or barrier post. In these cases, the gas service may be re-run from the main or the meter may be relocated. Gas service re-running and meter relocation is a capital expense.

In the 2020 GRC, PG&E estimated that 5% of meter protection locations would be re-run or relocated. However, in 2021 the number of abnormal conditions that would necessitate this work was significantly under the 5% rate assumed. As a result, less capital meter protection work was performed than estimated.

ED staff concluded this rationale partially explains the under expenditure, but does not adequately explain why the under expenditure was so high. It is also unclear if this condition in 2021 was an anomaly or if the amount of capital work will continue to be lower than forecasted in the 2020 GRC. PG&E should elaborate if this reduction is part of a trend, and if so, how this trend will affect the imputation of this work in its 2022 RSAR.

Cathodic Protection System New/Replace (MAT 50P)

Spending for this program was \$19.6 million compared to an imputed adopted cost of \$8.9 million, an over expenditure of approximately 120%.

This work relates to mitigating the effects of corrosion on metallic gas distribution pipelines. PG&E attributes the higher cost to the program to the conversion of this work to contractors. This conversion was largely driven by the retirement of key PG&E construction personnel that supervised the in-house workstream and held the required C-57 California Water Well Drilling Contractor license required for this type of work. Due to the departure of these employees, PG&E did not have any employees that met the required years of experience needed to obtain the C-57 license.

ATTACHMENT A
Staff Risk Spending Accountability Report Review

While it would have been best if PG&E had explained how they intended to address this skill gap in its internal workforce, ED staff concluded this rationale was a reasonable explanation for the over expenditure. However, in its 2022 RSAR, PG&E should explain whether there were any costs shifted from other programs to address this forecasting error. PG&E should also strive to provide better descriptions of the assumptions used to forecast labor for a program like this

Electric Expense

Read & Investigate Meters (MWC AR, MAT not assigned)

Spending for this program was \$9.4 million, despite an imputed adopted cost of \$0.

This work includes activities for field resources performing manual meter reading activities and the systems, administration, and clerical support necessary to effectively perform these activities. This program relates to safety, reliability, or maintenance because it supports the proper functioning of PG&E's metering infrastructure necessary to reliably deliver timely and accurate customer billing.

In the 2020 GRC, all metering costs were requested together in one chapter within the Customer Care exhibit. Field Metering work moved from Customer Care to Electric Operations in 2018. This switch occurred shortly before the 2020 GRC was filed and was not captured to match PG&E's accounting.

ED staff concluded this rationale was a reasonable explanation for the expenditure. PG&E should explain in its 2022 RSAR the original imputed cost in Customer Care and compare the reallocation amount to the variance in the original program. Also, future instances involving a change in accounting methods should include references to the original MWCs and MATs and compare the variances.

Inspection Projects (MAT BFH)

Spending for this program was \$27.3 million, despite an imputed adopted cost of \$2.8 million, an over expenditure of 876%.

This work includes patrols and inspections of overhead (OH) and underground (UG) electric distribution facilities per General Order (GO) 165 in wildfire areas. This includes infrared inspections, testing and inspections of line equipment, special patrols and inspections, and other work associated with electric distribution system maintenance.

In response to ED's data request, PG&E explained that the work volume exceeded what its internal inspectors could complete in 2021. PG&E was required to augment its internal inspector workforce with contractor resources to align with work volumes. Workforce planning in the 2020 GRC did not include the increased frequency of inspections in High Fire Threat Districts (HFTD), work that did not exist prior to 2020. In addition, PG&E described changes to its tracking and inspection system; moving away from paper-based tracking to using mobile devices that are capable of capturing more information, including photographs. The new mobile devices require an inspector to fill out a checklist with 75-100 questions per inspection site. PG&E explained that the mobile devices add time to the process.

Regarding the increased workload in HFTDs, ED concluded this was a reasonable explanation for the increased workload and the need to supplement internal employment resources with contractors.

ATTACHMENT A Staff Risk Spending Accountability Report Review

The volume and complexity of inspection work in HFTDs is considerably greater than when PG&E's 2020 GRC was filed in 2018.

PG&E also cites the adoption of new mobile devices and onerous, time-consuming processes to operate them as a significant cause for the increased workload and over expenditure. ED staff does not agree that this is a reasonable explanation. The introduction of new mobile devices and processes should streamline work, not make it more cumbersome. Considering the increased workload and the high wildfire stakes involved, PG&E should re-evaluate its inspection procedures to ensure a more streamlined and efficient process.

In addition, the increase in work volume and adoption of a more cumbersome inspection system does not fully explain the gross underestimate in the imputed cost. In its current GRC, PG&E should describe what it will do to better estimate future imputed costs in this work category.

Operate and Maintain Substations – Electric Distribution Substation Management (MAT GCG)
Spending for this program was \$9.7 million compared to an imputed adopted cost of \$1.5 million, an over expenditure of 541%.

This work relates to the preventative maintenance, corrective maintenance, and operations at substation facilities. The work includes activities such as testing, overhauls, maintenance of emergency and other equipment, repair of failed equipment, and vegetation management, among other tasks.

In response to ED's data request, PG&E cited TD-3322B-065 dated May 8, 2019, which relays a change in California Public Resources Code Section 4291 requiring 100 feet of defensible space in and around electric substations located in Tier 2 and Tier 3 HFTDs. Because of this, vegetation management requirements were expanded from previously planned mitigations for defensible space. In some cases, the 100 feet may include property not owned by PG&E. To comply with the requirement, PG&E must negotiate with property owners and/or obtain necessary permits to clear vegetation.

ED staff concludes that the legal requirements for defensible space in HFTDs expanded significantly, resulting in the over expenditure. PG&E should explain in their 2022 RSAR how this enhanced vegetation management requirement, the increased workload, and resulting complexity will affect future planning and imputed estimates for this category.

Electric Capital

Electric Distribution Install/Replace Overhead Poles – Overloaded Pole Replacements (MAT 07O)
Spending for this program was \$19.4 million, despite an imputed adopted cost of \$0.

This program includes the replacement of electric distribution poles. The program enhances overall system safety by replacing poles identified as overloaded or nearing the end of their in-service life, prior to premature failure.

In response to ED's data request, PG&E initiated a new pole loading program in 2018 in response to the 2017 GRC Settlement, where PG&E agreed to develop a program to identify overloaded poles. MAT 07O was created to track the pole replacement work. This program was not created prior to submitting the 2020 GRC, so the work and expense were not forecasted.

ATTACHMENT A
Staff Risk Spending Accountability Report Review

ED staff recognize that program was formally established after filing of the 2020 GRC. However, ED staff noted that other programs (such as System Hardening Wildfire Resiliency Projects), was formally established after the 2020 GRC filing, but was still included in the filing. ED staff recommend PG&E provide more detailed explanations when a program's scope of operations is expanded and list any new mandates which precipitated the work.⁷

Electric Distribution Overhead Asset Replacement – System Hardening Wildfire Resiliency Projects (MAT 08W)

Spending for this program was \$319.5 million compared to an imputed adopted cost of \$822.2 million, an under expenditure of -61%.

This work includes rebuilding and reframing overhead electric distribution lines, including the installation of covered conductor, non-wood electric distribution poles, and conversion of overhead to underground. It also includes performing other reliability and system hardening improvement work such as replacing conductors and obsolete switches. The program rebuilds electric distribution lines in HFTDs as part of PG&E's Community Wildfire Safety Program.

In response to ED's data request, PG&E initially developed its list of prioritized projects in 2021 using its Wildfire Distribution Risk Model, Version 1 (WDRM1). However, before work started, PG&E updated and improved its risk model to WDRM2. This change caused the system hardening and undergrounding work initially planned in 2021 to pause while PG&E developed a new prioritized list of projects. In the meantime, PG&E continued work on other risk mitigation work. PG&E states that using the new WDRM2 model allows the company to select and prioritize the highest priority circuits for its system hardening program. At the end of three years, PG&E states that it will true-up the program and return any unspent wildfire mitigation funding to ratepayers.

ED staff concludes this rationale does not adequately explain why work was paused during the new model development. It also raises questions about why a list of priority projects was developed by one model, that model upgraded to a new one, and the original list of projects were replaced with a new list all within the same year. Though new model may better prioritize projects, significant time and resources were consumed in re-work.

Build IT Applications & Infrastructure (MWC 2F, MAT not assigned)

Spending for this program was \$49.6 million compared to an imputed adopted cost of \$17.4 million, an over expenditure of 285%.

This program includes costs to design, develop, and enhance applications, systems, and infrastructure technology solutions. It provides tools intended to help provide up to date, complete, and accurate information to enable the coordination of work and asset data across all work streams.

In response to an Energy Division data request, PG&E stated that the needed technology investments to support wildfire mitigation efforts caused the actual costs to exceed imputed costs. The imputed amount was underestimated because they were made years before purchasing the technology investments.

⁷ See <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M494/K608/494608119.PDF> attachment A p, 2

ATTACHMENT A
Staff Risk Spending Accountability Report Review

ED staff concluded this rationale was reasonable explanation for the over expenditure, especially considering the increased need for these technology investments due to increased wildfire mitigation work. In its 2022 RSAR, PG&E should explain if these technology investments are a one-time cost, or if they will be an ongoing expense.

Electric Distribution Substation Capacity – Electric Distribution Substation General Install/Replace (MAT 46A)

Spending for this program was \$9.6 million compared to an imputed adopted cost of \$32.5 million, an under expenditure of -70%.

This under expenditure was primarily due to the cancellation of the Llagas Energy Storage Project, a joint effort between PG&E and Tesla. After PG&E had already incurred costs of \$2.3 million, the sale and transfer agreement between PG&E and Tesla was terminated on February 18, 2022. Portions of this equipment have already been installed on site. PG&E can use this already installed equipment for new capacity.

ED staff concluded this rationale was a reasonable explanation for the under expenditure. In its 2022 RSAR, PG&E should provide additional context about the reason for the cancellation of the transfer agreement and if there are any lessons learned that can be applied to other similar projects.

Electric Distribution Substation Transformer Replacements – Electric Distribution Substation Replace Transformer (MAT 54A)

Spending for this program was \$37.7 million compared to an imputed adopted cost of \$5.7 million, an over expenditure of 566%.

This program includes replacing transformers at substations that have the highest risk of failure. It also includes maintaining an adequate supply of emergency transformer stock and mobile transformers for emergency response.

In response to ED's data request, PG&E stated that it initially suspended activities on most in-flight proactive replacement projects. PG&E later determined that it would be more cost effective to finish the in-flight projects, as completing them later could potentially lead to much higher unit costs or stranded investments over time. As a result, PG&E adjusted its plans by funding more in-flight transformer replacements than contemplated when PG&E prepared its 2020 GRC forecast.

While ED staff find this to be a reasonable explanation for the over expenditure for the 2022 review, it is recommended that reasons for the low activity forecast (e.g., inflight projects) should be included. Likewise, PG&E should elaborate on if this work type will resume suspension once all in-flight transformer replacements projects are complete. PG&E should report on how this decision will affect future imputed cost estimates.