

Pacific Gas & Electric SB 410 Powering Up Californians Act Assessment

June 13, 2025



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working world



June 13, 2025

Pacific Gas & Electric

To Narbir Hothi of Pacific Gas & Electric:

We have completed our first biannual report assessing Pacific Gas and Electric's ("PG&E" or "the Company") energization processes, timelines and costs, as described in Senate Bill 410 Powering Up Californians Act ("SB 410"). Our engagement was performed in accordance with our engagement letter ("Contract") dated June 7, 2024 and change order executed on July 3, 2024, and our procedures were limited to those described in that letter. After our Contract was executed, the CPUC issued Decision 24-07-008 and Decision 24-09-020, which contained several tasks and requirements that are inconsistent with the Contract currently executed with EY. As such, EY and PG&E are working closely on a change order to validate the scope of our work aligns with the additional requirements included in D.24-07-008 and D.24-09-020 for future reports.

Our findings and observations resulting from our procedures are limited to those identified as of this report date and provided throughout the report. Additional information received will be updated in the subsequent 2025 report.

As noted in our statement of work, the engagement is performed under standards promulgated by the American Institute of Certified Public Accountants ("AICPA").

This report is intended solely for the information and use of the Company's management. The Company may disclose this assessment report, or discuss information relating to the Services, with any governmental authority, agency or regulator ("Regulator") with jurisdiction over the Company; provided that the Company provides EY with advanced written notice of such disclosure. The Company acknowledges and agrees that: (i) EY's Services were not performed, and our report was not prepared, for any Regulator, and (ii) any such disclosure to a Regulator is for informational purposes only and not for any third party's use and/or benefit.

Very truly yours,

Ernst + Young LLP

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I. Executive summary

Background

In February 2024, a request for proposal was issued seeking a consultant to assess PG&E's energization projects in accordance with the SB 410 Powering Up Californians Act ("SB 410"), as codified in the California Public Utilities Code Sections 930-939.5. Ernst and Young LLC ("EY" or "we") was selected as the third-party consultant to provide these services. The contract was executed on June 7, 2024, and a change order was executed on July 3, 2024.

SB 410, signed into law on October 7, 2023, and related Rulemaking (R.) 24-01-018¹, aim to streamline the process for customer energization requests, addressing delays faced by customers of large electric investor-owned utilities (IOUs) when seeking new or upgraded electric service. SB 410 mandates the California Public Utilities Commission ("CPUC") to establish average and maximum target energization timelines and create a reporting mechanism for customers when these targets are not met to expedite California's electrification efforts to help achieve the state's carbon neutrality goals by 2045.

EY assessed PG&E's business practices and procedures for energizing new customers, as well as PG&E's timeline calculations, list of energization projects, and costs associated with energization projects to determine if they were reasonably and prudently incurred.

- **Operational Assessment** - Within this section, we describe the current population of energization projects identified by PG&E, including our assessment of PG&E's timeline calculations for obtaining such information. We analyzed PG&E's customer demand growth calculations for its energization program for 2025 and 2026. Additionally, we reviewed PG&E's historical funding forecasts and authorized funding related to energization projects in the General Rate Case (GRC) and provided insights into funding trends and their impacts for meeting future growth.
- **Financial Assessment** - Within this section, we describe the population of energization projects from January 2021 - June 2024 as captured in PG&E's books and records. We performed analytical procedures on this population in addition to a statistical sample of orders. Each order is intended to represent an energization project (with some variation). As a result, we are testing a statistically valid sample of orders to understand the nature of the work. We further selected expenditures within those orders to understand if the financial information is accurate, prudent and reasonable.

Limitations and assumptions of the assessment

Our work was performed based on the information provided to us by the Company and statements made by Company personnel as of this report date. EY performed factual analyses and procedures and documented the findings and results from such analyses and procedures.

¹ On January 30, 2024, The CPUC issued Order Instituting Rulemaking (R.) 24-01-018, to serve as a venue for the Commission to implement certain provisions of Senate Bill (SB) 410 and Assembly Bill (AB) 50.

Our procedures do not constitute an “audit,” “review” or “compilation” of the Company’s financial statements, as those terms are defined by the AICPA for financial statement audits, nor do we provide any form of assurance on the financial statements as a whole.² Additionally, our engagement cannot be relied upon to disclose errors, irregularities, or illegal acts including fraud or defalcations that may exist.

EY performed the assessment in accordance with the consulting professional standards in the Statement on Standards for Consulting Services (“SSCS”) established by the AICPA. Furthermore, our approach is designed to achieve the principles of the National Association of Regulatory Utility Commissioners’ (“NARUC”) Rate Case and Audit Manual (2003) in an effective and efficient manner. As noted in the manual, we relied on the commonly understood concepts of “prudence” and “reasonableness” when reviewing expenses and corresponding adjustments proposed. The manual states the purpose of applying these concepts is to “determine a revenue requirement and customer rates that are just, fair, reasonable, and sufficient.”

The Company may disclose this assessment report, or discuss information relating to the Services, with any governmental authority, agency or regulator (“Regulator”) with jurisdiction over the Company; provided that the Company provides EY with advanced written notice of such disclosure. The Company acknowledges and agrees that: (i) EY’s Services were not performed, and our report was not prepared, for any Regulator, and (ii) any such disclosure to a Regulator is for informational purposes only and not for any third party’s use and/or benefit.

Our procedures were limited as a result of the following factors:

- In July 2024, the CPUC issued Ratemaking Decision (D.24-07-008) and in September 2024, the CPUC issued the Energization Time Periods Decision (D.24-09-020). These decisions contained several tasks and requirements that are inconsistent with the contract and scope of work currently executed with EY. EY has been in discussion with PG&E to accommodate these items. EY, PG&E and the Energy Division subsequently aligned on the requirements to be addressed in the draft April 30, 2025, report.
- In addition, certain information is not available at the time of this report to complete all of our planned procedures. Our assessment is multi-year, and we will continue to update our observations in future reports, as more information becomes available. Consequently, this report does not cover all the tasks included in the decisions, and we are unable to provide finalized observations or conclusions at this time. Further details regarding the reconciliation of regulatory decision tasks and the EY report are provided in Appendix A below.

II. Operational assessment

Timeline calculations

PG&E’s Biannual Energization Report

Overview

² AICPA, AU §508

As stated in SB 410, the third-party auditor shall assess “the electrical corporation’s performance in meeting energization time periods established by the commission pursuant to this article.” R.24-01-018, established by the CPUC to implement SB 410 requirements, requires PG&E to adopt energization targets and timelines and track utilities compliance with those requirements. On September 12, 2024, the CPUC issued a decision, D.24-09-020, establishing target energization time periods and a reporting template for the large investor-owned utilities in California to report their progress on a biannual basis, with the first report to be submitted on March 31, 2025.

On March 31, 2025, PG&E filed its first Biannual Energization Report pursuant to Decision 24-09-020 (referred to as “the March 2025 Biannual Report” or “the Report”). The Report provided data for customer energization requests submitted from January 31, 2023, to December 31, 2024.

Approach

EY leveraged PG&E’s March 2025 Biannual Report to assess the timelines for Electric Rule 16, Electric Rule 29 and Electric Rule 15/16, as well as the accuracy of the information within the Report, according to the methodology established by the Company³. Using the project level detail in the Energization Data Reporting Template⁴, we reperformed calculations of the reported average energization metrics and selected a sample of completed projects to analyze. From our sample of completed projects, we established start and end dates for each energization phase by extracting data from the Company’s SAP and Salesforce data. Then, we recalculated the timeline for each energization phase, and recalculated the Customer Calendar Days, PG&E Calendar Days, and the End-to-End Energization Cycle Calendar Days, using the Company’s defined methodology.

Procedures

EY performed testing procedures as follows:

1. Obtain the March 2025 Biannual Report and the supporting Energization Data Reporting Template.
2. Perform a mathematical recalculation of the Electric Rule 16, Electric Rule 29 and Electric Rule 15/16 energization metrics disclosed in the March 2025 Biannual Report using the Energization Data Reporting Template.
3. Using the Energization Data Reporting Template,
 1. Identify completed projects that have start and end dates for each energization phase.
 2. Identify completed projects that have zero total PG&E calendar days.
 3. Compare, by project, calendar days in Phases 7 and 8 to the total PG&E calendar days to identify unusual patterns, such as, projects with total PG&E calendar days that are less than the calendar days stated for Phase 7 and Phase 8.
 4. Follow up on items identified and document observations.
4. Select a judgement sample of 25 completed projects from the Energization Data Reporting Template and perform the following for each project:

³ Please note: EY did not review design effectiveness of the methodology for this reporting period, and we make no comment on appropriateness of this methodology.

⁴ The Energization Data Reporting Template is an Excel attachment filed with their March 2025 Biannual Report.

- a. Agree start date and end date of each energization phase to the Company's query of SAP and Salesforce. Agree a selection of the start dates and end dates in the query to SAP and/or Salesforce.
- b. Recalculate the timeline for each energization phase.
- c. Recalculate the Customer Calendar Days, PG&E Calendar Days, and the End-to-End Energization Cycle Calendar Days, based on the Company's defined methodology.
- d. Identify and report any outliers and/or discrepancies.

Observations to date

The following information summarizes our understanding of the data contained within PG&E's Report and methodology for obtaining such data:

- Table 1 below is a summary of the average energization timelines for completed projects included in the Report, which the Company defines as new business applications submitted between January 31, 2023, and December 31, 2024 that were completed by March 20, 2025. The average timelines do not include projects that were not completed by March 20, 2025, or applications that were cancelled or rejected. Based on the data received, approximately 41%⁵ of the applications submitted between January 31, 2023, and December 31, 2024 were completed by March 20, 2025; therefore, the timelines presented in Table 1 below represent less than half of the applications submitted between January 31, 2023 and December 31, 2024.

Table 1 - PG&E's energization metrics reported*

Description	Electric Rule 16	Electric Rule 29	Electric Rule 15/16	Main Panel Upgrades**
Total Projects Submitted 1/31/23 - 12/31/24 and Completed Through 3/20/25	5,882	56	3,104	21,632
Average Energization PG&E Calendar Days***	122.45	119.79	119.14	50.99
Average End-to-End Energization Calendar Days****	306.97	466.66	320.59	61.38
Percent of Completed Jobs Under Maximum Energization Days	97.90%	96.40%	96.40%	59.00%

* PG&E's Biannual Energization Report Pursuant to Decision 24-09-020, dated March 31, 2025, pdf pages 6 and 7.

** Main Panel Upgrade projects are captured under annual blanket orders making it difficult to delineate the required energization phase structure. See Section 3C of the March 2025 Biannual Report for more details.

*** Average number of days it takes PG&E to complete the steps in the energization process under its control.

**** Average number of days from the start date of an energization request (date the customer's application is deemed complete) to the date the customer's request is energized.

- The Company utilized the following methodology for capturing and reporting the energization metrics in Table 1:
 1. Phase Responsibility:
 - PG&E Time is attributed to the following operational phases:

⁵ PG&E Biannual Energization Report Pursuant to Decision 24-09-020, dated March 31, 2025, pdf page 6.

- Phase 2: Engineering & Design
 - Phase 4: Utility Dependencies
 - Phase 6: IOU Site Readiness
 - Phase 7: Construction
 - Phase 8: Service Energization
 - Customer Time is limited to the following phases:
 - Phase 1: Customer Intake⁶
 - Phase 3: Customer Dependencies
 - Phase 5: Customer Site Readiness
2. PG&E's methodology principles:
- Customer Overlap in Phases: When a customer phase coincides with a PG&E phase (e.g., a customer-related process occurs simultaneously with a PG&E process) that overlapping time is exclusively categorized as customer time and not attributed to PG&E time. The result is that shared time is not double counted. As mentioned above, we make no comment regarding whether this methodology is appropriate.
 - Concurrent PG&E Phase Work: In cases where PG&E undertakes multiple overlapping phases concurrently (e.g., two PG&E processes happen at the same time), those overlapping days are not counted multiple times. Instead, they are aggregated as a single day within the total PG&E time count. The result is that overlapping time is not double counted. As mentioned above, we make no comment regarding whether this methodology is appropriate.
 - The Company reported a total of 8,919 completed projects. The Company recognizes that its current systems of record (SAP and Salesforce) did not track all the required start and end dates needed for the energization timelines. In addition, the Company identified data gaps and outlier data that impacted the energization timelines. Below are data gaps and outlier data⁷ that impacted the metrics in Table 1:
 1. IOU Site Readiness (Phase 6) is measured by the time between the Requested Inspection Date and the actual First Inspection Date. The Company has stated that IOU Site Readiness was not a data point it required Company personnel to capture in its systems of record prior to Decision 24-09-020, dated September 12, 2024. The Company stated that it cannot recreate the missing historical IOU Site Readiness data. As a result, IOU Site Readiness data was only available for 21⁸ of 8,919 completed projects included in the metrics in Table 1. The Company has stated it has developed and launched a new Salesforce tool to track this time.⁹ The Company stated that as Company personnel are trained and the utilization of this new tool grows, the availability of Site Readiness data for energization projects will increase. Design and

⁶ While PG&E attributed Phase 1 as Customer Time, Phase 1 days are not included in the calculation of Customer Calendar Days or Customer Business Days.

⁷ For a complete list and description of reporting gaps, see Section 3 to the PG&E Biannual Energization Report Pursuant to Decision 24-09-020, dated March 31, 2025.

⁸ PG&E Biannual Energization Report Pursuant to Decision 24-09-020, dated March 31, 2025, pdf page 9.

⁹ EY has not assessed the new salesforce tool at the time of this report.

operating effectiveness of the newly implemented process, controls and tools will be assessed as part of future reports.

2. The Service Energization phase (Phase 8) is measured by the time between construction complete and meter set. Because of the format differences, the Company stated it is unable to consistently pull meter set data into the project timeline data. In addition, the Company indicated that there were instances where meter set data was not maintained in an electronic format, i.e., it was only available in manual documentation. The Company has stated that it cannot recreate the missing historical meter set data. As a result, meter set data was only available for 3,339¹⁰ of 8,919 completed projects included in the metrics in Table 1. For projects where a meter set date was not retrievable, the Company substituted the construction completion date to signal project completion.

The Company indicated that it is working to develop an automated process to merge meter data and project timeline data. In addition, the Company stated it is evaluating the need to issue guidance to internal job owners on accurate and timely capture of meter set data. The Company anticipates that these enhancements will allow for more complete meter set data for projects that require a meter to be installed. The Company stated that future enhancements to meter set data may result in an increase to total PG&E responsible time. Enhancement status will be reassessed as part of future reports.

It is important to recognize that not all new business projects will require the installation of a new meter; therefore, there will continue to be projects that have no meter set date. Examples include a customer requesting additional load, a main panel upgrade, or an electric vehicle charging project where a meter already exists. In this situation, the construction completion date is used to signal project completion. In addition, the Company stated that there could be projects with meter set dates that occur much later than the completion of the energization construction phase. For example, the Company stated that the meter set dates for an energization project related to a new strip mall could be substantially later than the completion of the energization construction phase because tenants will move into the newly constructed strip mall over an extended period. In this instance, the set date of the first meter in the strip mall is used to signal project completion.

3. Main Panel Upgrade (MPU) projects are reported separately from the standard tariff projects because they do not follow the typical energization process from intake to meter set via a PG&E order. At this time PG&E captures these projects under annual blanket orders and as such cannot provide detailed energization timelines. Additionally, these orders may include other work in support of an MPU, for example:

¹⁰ PG&E Biannual Energization Report Pursuant to Decision 24-09-020, dated March 31, 2025, pdf page 9.

weather heads, new meters, or relocation. PG&E's MPU reporting does not include the vast majority of the required reportable fields due to the internal order and notification structure they use to track Main Panel projects. The timelines reported represent total PG&E calendar days without detailed accounting of customer time. PG&E expects that future reporting will include more robust and accurate timelines with detailed phase information for both Customer, PG&E, and when applicable, Agency time.

4. The Company removed outlier data. Outlier data includes items such as data entry errors, measurement anomalies, and extreme deviations from typical values. Below are the outliers identified in the Report:
 - Customer Site Readiness (Phase 5): In instances where negative day aging¹¹ occurred within the site readiness phase, PG&E removed those data points to avoid skewing averages. Negative aging within the site readiness phase could occur due to data entry errors or other anomalies within the job process.
 - Completed Jobs Without Task Data: PG&E identified and excluded a subset of jobs from its reporting and analysis processes. The Company stated that those jobs, although marked as complete in its system, lack meaningful task-specific data necessary for accurate and comprehensive evaluation. Sixty-nine (69)¹² jobs were excluded from the population of completed projects used to determine the metrics in Table 1.
 - Residential EV Upgrades: Residential electric vehicle upgrades are captured under MATs 161 and 162 at PG&E. The Company has excluded them from the Report because the typical energization process from Intake through Energization does not take place for the vast majority of these projects. Most EV upgrade projects only encounter the Design phase and are considered complete once a design review has been completed.¹³
 - Streetlights: Streetlights are categorized under MAT 160 at PG&E. Per a joint agreement with the other Investor-Owned Utilities (IOUs) in California, work involving streetlights has been excluded from the Report.¹⁴

Below are our observations identified as a result of the procedures performed:

1. As identified in the March 2025 Biannual Report, the Company's systems of record (SAP and Salesforce) did not allow for tracking of all start and end dates for each of the energization phases. We observed that 7 of the 8,919 completed projects listed in the Energization Data Reporting Template had start and end dates for all 8 of the energization phases. The Company has stated that it cannot capture or recreate the missing start and end dates. Because start and end dates are not available for all completed projects, the energization metrics in the March 2025 Biannual Report do not represent a baseline measurement of PG&E's energization timelines. The Company has stated that it is designing process

¹¹ Negative day aging occurs when the start date of a phase is after the end date of the phase. The Company indicated that negative aging within a phase could be caused by data entry errors or other anomalies within the job process.

¹² PG&E Biannual Energization Report Pursuant to Decision 24-09-020, dated March 31, 2025, pdf page 25.

¹³ Although these MATs were excluded from the Report, MATs 161 and 162 are still eligible for SB 410 funding.

¹⁴ Although this MAT was excluded from the Report, MAT 160 is still eligible for SB 410 funding.

enhancements and technological improvements that, when fully implemented, will allow it to capture more complete and accurate timeline data. For new projects requested after the full implementation of the process and technological improvements, PG&E expects the timeline data to get better. However, there are projects that were started before the issuance of Decision 24-09-020 that were not completed by March 20, 2025, the date the Company compiled the March 2025 Biannual Report. Therefore, there may be completed projects included in subsequent biannual reports that do not have start and end dates for each of the energization phases.

2. We observed that 156 of the 8,919 completed projects were initiated by customers after the adoption of Decision 24-09-020 on September 12, 2024. None of the 156 projects had start and end dates for all 8 of the energization phases. As indicated above, the Company stated it is currently designing processes and technological improvements that, when fully implemented, will allow it to capture more complete and accurate timeline data.
3. We observed that the energization metrics in the March 2025 Biannual Report (summarized in Table 1 above) differed¹⁵ from the Energization Data Reporting Template. The Company explained that the energization metrics in the March 2025 Biannual Report were compiled as of March 20, 2025, and the Energization Data Reporting Template was compiled as of March 28, 2025. Because the underlying projects are moving through the energization phases, data is constantly changing. Therefore, we would expect data to change each time it is pulled from the source systems. The Company is working to create a static report for the biannual reporting process.
3. As described in the March 2025 Biannual Report, when a customer phase coincides with a PG&E phase (e.g., a customer-related process occurs simultaneously with a PG&E process) that overlapping time is exclusively categorized as customer time and not attributed to PG&E time. During our testing, we also identified that the Company excludes overlapping Agency time¹⁶ and overlapping customer-initiated re-design time from PG&E time. Both of these overlapping criteria reduce PG&E's time in their Report.
4. As described in the March 2025 Biannual Report, in instances where negative day aging occurred within the customer site readiness phase¹⁷ (Phase 5), PG&E removed those data points to avoid skewing averages that otherwise would have artificially lowered PG&E's timelines, which means an energization phase with negative aging is counted as zero days in the timeline calculation. 935 of the 8,919 completed projects had instances of negative day aging.
5. We identified two completed projects that had zero total PG&E Calendar Days. These two projects demonstrate that the assumptions used in PG&E's calculation may total days that are not representative of actual PG&E effort. For one of these two completed projects, both the total Customer Calendar Days and the total PG&E Calendar Days were zero. This is the result

¹⁵ Electric Rule 16 total project count was different by 79 (1% difference). Electric Rule 15/16 total project count was different by 44 (1% difference). Electric Rule 16 Average End to End Energization Calendar Days were different by .15 days (less than 1%). Electric Rule 15/16 Average End to End Energization Calendar Days were different by 1.56 days (less than 1%).

¹⁶ Agency time is third party activities. Activities include joint pole intent, land services, environmental services, encroachment permit, and Federal Aviation Administration (FAA).

¹⁷ During EY's sample testing, we also observed negative days in the customer intake phase (Phase 1) and the construction phase (Phase 7). The Company removed the negative days.

of customer phases overlapping with PG&E phases and/or missing dates. In addition, Customer Calendar Days exclude Phase 1.

6. We identified 11 of the 8,919 completed projects that had total PG&E Calendar Days less than PG&E Calendar Days for Phase 8 - Service Energization. Four of these projects were captured in our sample testing. For those 4 projects, total PG&E Calendar Days were less than the PG&E Calendar Days for Phase 8 because Customer Phase 5 dates overlapped PG&E Phase 8 dates.
7. We identified 643 of the 8,919 completed projects that had total PG&E Calendar Days less than the PG&E Calendar Days for Phase 7 - Construction. Eleven of those projects were captured in our sample testing. For those 11 projects, the Company explained that total PG&E Calendar Days were less than PG&E Calendar Days for Phase 7 for a variety of reasons, including:
 - a) The Company included incorrect total PG&E Calendar Days in the Energization Data Reporting Template due to a program logic error. PG&E has also stated they have corrected the program logic, which we will test in future reports.
 - b) Overlapping Agency time reduced total PG&E Calendar Days.
 - c) Customer Phase 5 dates overlapped PG&E Phase 7 dates.
8. We noted that for eight projects in our sample, when the end date for an energization activity was erroneously recorded as a date later than the meter set date, that later date was captured as the project end date for purposes of calculating the End-to-End Energization Calendar Days. Using the later date as the project end date overstates the End-to-End Energization Calendar Days. PG&E has stated they have corrected this error, and we will analyze that in future reports.
9. We noted that for eight projects in our sample, the Company determined that the dates were entered into SAP incorrectly. The Company stated that they will be issuing additional guidance to internal job owners on accurate and timely capture of job task dates to improve the data entry process.
10. We identified errors in the calculation of PG&E Calendar Days and End to End Calendar Days for two projects that were related to housing subdivisions during our sample testing. In instances when the request for service is a housing subdivision, building permitting data can cause errors in the timeline calculations due to energization phase overlaps. The Company stated that it is working to develop a process to resolve this error.
11. We identified five projects within our sample where PG&E Calendar Days for a completed project reported in the Energization Data Reporting Template was incorrect. The Company stated that in early April 2025, it identified errors in the program logic used to calculate PG&E Calendar Days and has since updated the program to correct the errors. The Company has stated that 155 completed projects in the March 2025 Biannual Report were impacted by the logic error.
12. The Company continues to gather support and answer requests related to our testing of the energization timelines. We will provide any updates and additional findings in our next report.

Energization requests from prior three years

Overview

As stated in SB 410, the third-party auditor shall assess the “electrical corporation’s customer energization requests for the previous three years.” R.24-01-018 requires PG&E to adopt energization targets and timelines and track a utility’s compliance with those requirements. As part of the proceeding, the CPUC requested historical information from each of the three electric IOUs to determine statewide energization targets. On September 12, 2024, the CPUC issued decision D.24-09-020, establishing target energization time periods. Please note, the CPUC target energization time periods were not established during the historical period assessed in this section (2021-2023); however, D.24-09-020 definitions and requirements were used as guidance for assessing historical numbers in this section.

Approach

EY obtained energization requests from the last 3 years (2021-2023) to assess the timelines for Electric Rule 16, Electric Rule 29 and Electric Rule 15/16, as well as the accuracy of the information within the workpaper, according to the methodology established by the Company.

Procedures

EY performed testing procedures as follows:

1. Obtain the supporting workpapers containing energization project timelines from 2021 to 2023.
2. Assess the integrity of the data provided to us.
3. Perform walkthroughs with stakeholders to understand the overall calculation logic and methodology for identifying energization projects.
4. Perform a mathematical recalculation of the Electric Rule 16, Electric Rule 29 and Electric Rule 15/16 energization projects provided in the workpaper support based on the methodology defined by PG&E.

Observations to date

1. From 2021-2023, PG&E did not have a defined process and system to consistently track and monitor all relevant Energization timeline data fields. As stated in PG&E’s March 2025 Biannual Report, PG&E recognizes that its current systems of record (SAP and Salesforce) do not track all required fields needed to perform timeline calculations, which means there are data gaps, especially within historical data. PG&E acknowledged past inefficiencies and started implementing process improvements to comply with the requirements from the Energization Time Periods Decision, D.24-09-020. Some improvements noted to date in PG&E’s rebuttal testimony¹⁸:
 - a. In late 2023, PG&E identified that more than half of customer applications did not result in a completed project due to customers cancelling the project. In response,

¹⁸ PG&E’s rebuttal, “Pacific Gas and Electric Company’s (U 39 E) Motion to Revise 2025 and 2026 Energization Cost Caps,” in response to Rulemaking 24-01-018, dated October 4, 2024.

PG&E improved the application portal's screening tools and required customers to submit documents prior to application submission.

- b. PG&E is continuing to redesign the collection of project information and documents, as well as PG&E-customer engagement, prior to customers completing their application.
 - c. When new business customers submit their applications, PG&E's engineers create internal orders, job packages, and estimates for the work. PG&E is continuing to work on improved visual management and operating reviews to reduce the wait time for designs and estimates. PG&E started improving its job-package-preparation and estimating processes in 2024, which included creating job-package checklists and enhancing training for engineers.
 - d. In 2023, the New Business team initiated a customer-outreach campaign to address delayed applications. Active applications were rerouted to PG&E's Service Planning organization to initiate the next steps. If PG&E was unable to reach a customer within 90 days, the application was cancelled, which freed up resources to focus on active applications.
 - e. In 2024, PG&E established the New Business Project Management Office (NB PMO) to provide oversight over the New Business program and execution of the New Business workplan.
2. PG&E pulled the data of energization projects from 2021-2023 using the same logic and methodology as their March 31, 2025 report. Please refer to "Observations to date" in "PG&E's Biannual Energization Report" section for additional information on data gaps identified to date.

PG&E has indicated that they will continue to refine and update their processes and systems to capture and calculate timelines going forward. EY will provide additional information in future Energization reports.

Performance in meeting internal time periods

Overview

SB 410 states the third-party auditor shall assess the "electrical corporation's performance in meeting its internally established energization time periods over the prior 10 years or longer, as necessary."

Approach

EY assessed whether the Company had established internal energization time periods over the last 10 years and assessed the Company's performance in meeting its internally established energization time periods, as applicable.

Procedures

EY performed testing procedures as follows:

1. Performed walkthroughs with key stakeholders to inquire about PG&E's policies and procedures and whether they had internal time goals for completing energization projects.
 - a. During our walkthroughs with the Company, it came to our attention that PG&E did not have internally established energization time periods, which is why we were unable to perform the rest of our planned procedures for this requirement.

Observations to date

PG&E did not have defined internal energization time periods prior to the issuance of the September 2024 decision establishing target energization time periods, D.24-09-020.

In addition, as stated in PG&E's March 2025 Biannual Report, PG&E recognizes that its current systems of record (SAP and Salesforce) do not track all required fields needed to perform timeline calculations, which means there are data gaps, especially within historical data.

Customer demand growth forecast

Overview

SB 410 states the auditor shall assess "the electrical corporation's projections of customer demand growth included in the electrical corporation's distribution plan, including growth in new customers and growth in demand from existing customers." In addition, it states, "The third-party auditor shall evaluate the electrical corporation's current and future energization performance and make recommendations as to whether the electrical corporation is adequately meeting and anticipating customer demand."

EY requested insight from Energy Division on their interpretation of "current and future energization performance" and Energy Division responded with the following clarification: "Energy Division believes that this builds on the previous assessments that the CPUC and EY have done in A.21-06-021 and R.24-01-018, including timelines, customer demand, staffing, and funding levels."

Approach

EY assessed PG&E's key assumptions and inputs in their electrical projections of customer demand growth, including growth in new customers and growth in demand from existing customers. Customer demand growth is closely linked with Company staffing, "energization performance" and capital funding plans, which means EY will be assessing customer demand growth holistically with the other related sections within this report: timelines, staffing and funding levels. We will continue to update our assessment of customer demand growth and current and future performance in future reports.

Procedures

EY performed testing procedures as follows:

1. Obtain an understanding of the Company's process for developing the forecast.
2. Identify key factors/inputs upon which the forecast was developed.
3. Obtain sources of information that the Company used in formulating the forecast.
4. Trace key assumptions to the internal sources to determine whether the indicated source of information was used.
5. Perform a mathematical recalculation of the forecast.
6. Inquire about Company's process improvements for developing the forecast.

Observations to date

The Company estimates customer demand growth using the following:

- Known Work: This is the number of applications deemed complete ("ADC") and represents the number of energization applications from customers that have not been completed at the time of the forecast. The Company obtains this information from its SAP system, which is its system of record.
- Forecast of New Work (also called "Steady State ADC"): This is the forecast of new energization requests. The forecast is based on total historical ADC as obtained from the Company's SAP system. The Company uses a 4-year historical average of orders deemed complete and applies a 3-year historical average cancellation rate to arrive at the Forecast of New Work. The Company then makes assumptions of how much of the Steady State ADC will be completed in each forecast year; the Company does this by using historical service requests, which is obtained from SAP.

EY recalculated the Company's 2025 and 2026 customer demand growth forecast that was disclosed in the response to data request EstablishEnergizationTimelinesOIR_DR_TURN_008-Q008 using data sources provided by the Company. The total forecasted customer demand growth for 2025 and 2026 was 38,175 ADCs. This differs from the total forecasted customer demand growth of 39,477 ADCs that was reported in Winget Declaration Attachment C, Table C-4. The Company has stated that the forecast in Winget Declaration Attachment C, Table C-4, assumed that the Steady State ADC would be completed within the calendar year it was forecasted, meaning it did not account for customers requesting energization in a later year. The Steady State ADC in EstablishEnergizationTimelinesOIR_DR_TURN_008-Q008 considers customers requesting energization in a later year.

Observations noted to date:

- EY recommends that PG&E should assess the design effectiveness of its customer demand growth forecasting process (including the need to use a more granular forecast) for the following reasons:
 - As stated above, the Company uses total historical ADC to forecast Steady State ADC. At this time, it does not contemplate increased or decreased volumes based on legislation impacts.

- PG&E's current forecast is not granular. The Company stated they are developing a new bottoms-up Steady State ADC forecasting process that utilizes historical ADC by MAT and job size. Because job size is a driver of unit cost, PG&E believes this new forecasting process will allow the Company to improve their forecast of energization costs. EY will review the new Steady State ADC forecasting process after it is implemented.
- PG&E filed its 2027 rate case on May 15, 2025 which included the updated forecast for customer demand growth. EY will assess this forecast in the next Biannual report.

Additional considerations

When requesting recovery of energization costs in base rates, the Company forecasts customer demand growth because anticipated customer demand drives the energization costs the Company expects to incur. While the forecast of customer demand growth and the associated energization costs is necessary for developing a test year in a rate case, the Company's method of recovering energization costs is designed to allow the Company to only recover actual energization costs incurred.

Specifically, the Company currently recovers only a portion of its eligible energization costs in base rates. Our understanding is that the Company has obtained CPUC approval in D.24-07-008 to record the difference between actual eligible energization costs and the amount of energization costs recovered in base rates in a memorandum account, up to the annual cap amount. At some point in the future, the Company will request recovery of energization costs recorded in the memorandum account through a mechanism outside of base rates. The Company's recovery of energization costs through the combination of base rates and the memorandum account is designed to allow the Company to recover the total actual energization costs incurred, subject to a reasonableness review.

Table 2 - Illustrative example of recovery of energization costs

Line #	Description	Amount
1	Total energization costs incurred in 2026	\$ 10,000,000
2	Energization costs authorized in base rates in 2026	\$ 4,000,000
3	Energization costs not recovered in base rates (Line 1 - Line 2). This amount is deferred to the memorandum account, if it's below the annual cap amount authorized in D.24-07-008.	\$ 6,000,000
4	Under recovered energization costs deferred to the memorandum account are recovered through a rate mechanism outside of base rates.	\$ 6,000,000
5	Net Recovery¹⁹	\$ -

¹⁹ For capital costs, interim revenue requirements will be recovered, but only up to the revenue requirements cap authorized in D.24-07-008. After 2027, energization related capital expenditures will be recovered through the GRC.

Qualified staffing levels and future staffing projections

Overview

SB 410 states that the auditor shall assess “the electrical corporation’s qualified staffing levels and future anticipated staffing needs to meet projections for customer demand growth, including the ability of the electrical corporation to sufficiently build its workforce.” In addition, it states that the third-party auditor shall evaluate the “electrical corporation’s current and future energization performance and make recommendations as to whether the electrical corporation is ... adequately training and retaining an adequate workforce.”

EY requested insight from Energy Division on their interpretation of “current and future energization performance” and the Energy Division responded with the following clarification: “Energy Division believes that this builds on the previous assessments that the CPUC and EY have done in A.21-06-021 and R.24-01-018, including timelines, customer demand, staffing, and funding levels.”

Approach

EY assessed PG&E’s current energization practices and procedures related to staffing, as well as key assumptions and inputs for determining staffing projections. To reduce energization timelines in compliance with SB 410, PG&E is required to develop forecasts to meet current demand, address the backlog of projects and sufficiently plan for future demand growth within its energization program, all of which requires sufficient staffing.

Staffing is closely linked with customer demand growth and “energization performance”, which means EY will be assessing staffing holistically with the other related sections within this report: timelines, customer demand growth and funding levels. We will continue to update our assessment of staffing and current and future performance in future reports.

Procedures

EY performed testing procedures as follows:

1. Conduct walkthroughs with PG&E stakeholders on staffing procedures and projection methodologies.
2. Assess relevant policies.
3. Identify key inputs upon which the forecast was developed.
4. Obtain sources of information that the Company used in formulating the forecast.
5. Compare projection methodology to customer demand growth.

Observations to date

PG&E’s current workforce planning process includes the HR Solutions and Services Department to work with each line of business (LOB) to develop their workforce plans. The LOBs determine the

workforce they will need to perform the required work, balancing use of contractors and third parties with PG&E employees. These forecasts are adjusted and updated as new or changed work priorities and funding levels are established.

Our observations are as follows:

1. During the course of the proceeding, PG&E developed an updated plan to address immediate demand and eliminate the backlog before 2026. The current plan utilizes a mix of internal and external resources, with a heavier reliance on more expensive contractor resources. PG&E has indicated the following in their rebuttal testimony²⁰:
 - a. Energization projects are increasing in size, scope and complexity, requiring PG&E to build more system reinforcements and upgrades to serve new electric loads safely and reliably.
 - b. Contractor resources are comprised of large crew sizes, which are better staffed and able to handle larger projects.
 - c. Assigning larger projects to contract crews frees up internal crews to pivot to emergencies when needed.
 - d. Hiring permanent staff to address a temporary backlog is not cost-effective over the long term, and it requires the purchase of additional vehicles, equipment, tools, etc.
 - e. Onboarding and training internal resources will delay the completion of forecasted and backlog work.
2. To assess the sufficiency of PG&E's staffing plan in meeting forecasted demand and backlog of applications, we have assessed the most current timeline data in PG&E's first biannual report. As noted in that section, we have identified some observations within that subset of data. A large portion of those projects reported in PG&E's first biannual report were executed prior to the updated staffing plan. As we continue to test more projects in the future, we will update our observations on the sufficiency of PG&E's current staffing plan.
3. Utility staffing projections are closely tied to customer demand growth forecasts, which are expected to undergo updates. Please refer to our observations outlined in the "Customer demand growth" section above.
4. In addition, PG&E is still working on their staffing projections for the upcoming 2027 GRC. We will continue to assess the sufficiency of PG&E's staffing levels and projections as more information comes to light.

Forecasted and authorized funding

Overview

SB 410 states the auditor shall assess:

²⁰ PG&E's rebuttal, "Pacific Gas and Electric Company's (U 39 E) Motion to Revise 2025 and 2026 Energization Cost Caps," in response to Rulemaking 24-01-018, dated October 4, 2024.

- “Funding requested by the electrical corporation to support energization requests for the previous three years in the general rate case or any other proceeding, and the efficacy of those previous requests in meeting customer demand.”
- “Commission authorized funding for the electrical corporation to support energization for the previous three years, future authorized funding, and authorized changes to the electrical corporation’s business practices or structures to improve its ability to respond to changing customer demand.”

In addition, it states that the third-party auditor shall evaluate the “electrical corporation’s current and future energization performance and make recommendations as to whether the electrical corporation is ... funded at sufficient levels to meet forecasted demand growth.”

EY requested insight from the Energy Division on their interpretation of “future authorized funding”. The Energy Division responded with the following statement, “ED interprets ‘future authorized funding’ to be funding that is already authorized but for future years (e.g., ECNBIMA 2025 and 2026 authorization) and upcoming funding requests in their GRC submission.”

Approach

In addition to the analyses of customer demand growth projections, we analyzed PG&E’s energization funding requests and commission authorized funding over the past three years (2021-2023) and compared funding requests and authorized numbers to actual PG&E spend during that period. This analysis highlights PG&E’s historical forecasting and funding patterns and their alignment with SB 410 requirements.

SB 410 also requires a future funding assessment. For 2027 and beyond, that data is not available at this time to assess PG&E’s projections. We will continue to update our assessment of funding and current and future performance in future reports.

Procedures

EY performed testing procedures as follows:

1. Review historical data on funding requests submitted by the electrical corporation through GRC to determine what funds are provided within the GRC and final decision for energization projects.
2. Conduct walkthroughs with PG&E stakeholders to understand the forecasting process.
3. Understand how GRC activities are budgeted, planned for and performed.
4. Analyze the funding levels in relation to actual spend using historical data (2021-2023).
 - a. At the time of our report, we were not able to compare funding to actual spend for 2024, given our population cutoff was June 2024 and PG&E is still finalizing their books for year end.

Observations to date

Our understanding of PG&E's historical forecasting factors is provided below:

1. PG&E used current estimates and historical averages as key inputs for requested funding in the 2020 and 2023 GRC.

Table 3 - PG&E's 2020 GRC forecasting factors

MWC	PG&E's forecasting factors
06	- Based on projects and engineering estimates - Used a 3-year average
10	Based on Rosen Consulting Group (RCG) Model
16	- Based on historical trends - Based on RCG Model
46	Based on projects and engineering estimates

We have observed the following to date:

1. PG&E spent \$1B more than forecasted and \$1.2B more than authorized for energization-related MAT codes from 2021-2023. Due to the timing of the 2023 GRC, which included recorded amounts through 2020, the 2021 - 2023 overspend has not been recovered. The 2021-2023 overspend for O&M expenses (MWC EV in Table 5) has not and will not be recovered. For capital expenditures (MWC 06, 10, 16 and 46 in Table 5), the 2021-2023 overspend is included in the Company's 2027 GRC application, which includes recorded capital expenditures through 2024. See tables below.

Table 4 - Historical funding by MWC (in 1000s)

MWC	Total Forecast 2021-2023*	Total Actuals 2021-2023**	Total Variance
06	\$288,110	\$415,951	(\$127,841)
10	\$435,324	\$518,905	(\$83,581)
16	\$1,684,965	\$2,502,674	(\$817,709)
46	\$139,862	\$106,512	\$33,349
EV	\$13,878	\$44,350	(\$30,471)
Total	\$2,562,139	\$3,588,392	(\$1,026,253)

Note: Totals in this table include eligible and partially eligible MAT codes as outlined in Ratemaking Decision (D.24-07-008) and assessed during financial analytics procedures.

*Forecasted amounts represent requested amounts in "reply brief with escalation update".

** Actuals are based on EY's starting population provided by PG&E at the beginning of the project and do not include MAT 46A.

Table 5 - Authorized funding by MWC (in 1000s)

MWC	Total Authorized 2021-2023	Total Actuals 2021-2023*	Total Variance 2021-2023
06	\$276,362	\$415,951	(\$139,590)

10	\$421,076	\$518,905	(\$97,829)
16	\$1,597,037	\$2,502,674	(\$905,637)
46	\$131,948	\$106,512	\$25,435
EV	\$39,992	\$44,350	(\$3,673)
Total	\$2,466,414	\$3,588,392	(\$1,121,293)

Note: Totals in this table include eligible and partially eligible MAT codes as outlined in Ratemaking Decision (D.24-07-008) and assessed during financial analytics procedures.

*Actuals are based on EY's starting population provided by PG&E at the beginning of the project and do not include MAT 46A.

2. In the 2023 GRC, PG&E forecasted \$3.9B in 2024-2026 for energization-related activity, and authorized amounts were \$3.1B which is within \$500K of actual spend from 2021-2023 of \$3.6B.
 - a. As evidenced by D.24-07-008, there is a general recognition that current funding is not sufficient to cover the backlog of projects. Therefore, the CPUC authorized PG&E to establish the Electric Capacity and New Business Interim Memorandum Account (ECNBIMA) to record energization costs pursuant to SB 410, and to include revenue requirements resulting from capital additions recorded within the ECNBIMA in its Annual Electric True Up Advice letters that serve as the ratemaking mechanism for granting interim rate recovery for such costs, subject to a reasonableness review in PG&E's next GRC. Through the memorandum account, PG&E will track revenue requirements associated with incremental spend above amounts authorized in the last GRC, within the allowable maximum incremental revenue requirement stated in D.24-07-008. We will analyze actual spend in future reports.

Table 6 - Forecasted GRC spend by MWC (in 1000s)

MWC	Total Forecast 2024-2026*	Total Authorized 2024-2026	Actual Spend 2021-2023**
06	\$527,031	\$397,003	\$415,951
10	\$542,227	\$444,490	\$518,905
16	\$2,632,994	\$2,098,204	\$2,502,674
46	\$239,879	\$191,179	\$106,512
EV	\$0	\$44,961	\$44,350
Total	\$3,942,131	\$3,175,837	\$3,588,392

Note: Totals in this table include eligible and partially eligible MAT codes as outlined in Ratemaking Decision (D.24-07-008) and assessed during financial analytics procedures.

*Forecasted amounts represent requested amounts in "reply brief with escalation update". Totals in this table include eligible and partially eligible MAT codes as outlined in Ratemaking Decision (D.24-07-008) and assessed during financial analytics procedures.

** Actuals are based on EY's starting population provided by PG&E at the beginning of the project and do not include MAT 46A.

3. As noted in other sections above (Refer to "Customer Demand Growth Projections" and "Staffing" sections), it is recognized that PG&E needs to refine its forecast methodology and

assumptions for energization-related activities to meet future demand growth and reduce overspend. PG&E's projection methodologies rely heavily on historical data which does not address the unprecedented rise in energization requests. Additionally, PG&E should consider future legislation in its forecasts for the upcoming GRC proceeding. A new bottom-up approach to forecasting customer demand is currently under development. We will review this new forecasting process upon its completion and continue to evaluate the adequacy of the requests as further information becomes available.

III. Financial assessment

Analysis of energization costs

Overview

SB 410 does not contain a requirement for the auditor to assess energization costs. However, this became an updated requirement during proceeding R.24-01-018, which was established by the CPUC to implement SB 410 requirements. On July 11, 2024, the CPUC issued D.24-07-008, authorizing a ratemaking mechanism for energization projects pursuant to SB 410. D.24-07-008 states the auditor shall assess the following:

- Ordering Paragraph 14: "All energization costs allowed under the annual cap in this decision shall also be verified by the required audit..."
- Ordering Paragraph 26: "PG&E's annual expended costs for energization authorized in D.23-11-068..."
- Ordering Paragraph 9, which references section 10.7: "Evaluate the relevancy, reasonableness and prudence of any expense relating to the planning, construction or operation of the corporation's plant"; "Assessing relevancy and allowability of MAT"; and "Assess whether a project is energization related and needed".
- D.24-07-008 also requires an analysis of costs tracked in the ECNBIMA for energization costs that exceed the costs authorized in D.23-11-069.²¹

Approach

We analyzed the gross population of approximately \$4.5B of costs from January 1, 2021, to June 30, 2024.²² We segregated the population into "projects" by order number and performed analytics across the population.

From the total gross population, we applied a statistical sampling methodology²³ and identified a sample of orders totaling \$871M to test in more detail. The purpose of designing a stratified sample is to increase the efficiency and precision through a smaller sample compared to a simple random

²¹ We will assess memorandum account spend in future reports.

²² Please note, this first report only analyzed base spend. We analyzed cost data by pulling specific time periods. As of June 2024, PG&E did not exceed authorized amounts. We will test memorandum account spend in the next report.

²³ Refer to Appendix B for more detail.

sample. During this process, the population of \$4.5B is converted into the sampling population and then divided into groups called strata. The samples selected are weighted to reflect the sampling rates for each of the different strata.

Our testing approach included analyzing a sample of orders to assess energization projects from project initiation to close-out to determine whether orders were reasonably and prudently incurred and related to energization activities, as defined by SB 410 and proceeding R.24-01-018. We also selected a sample of transactions to test actual order costs against invoices, contracts, purchase orders and other potentially relevant contemporaneous information.

Table 7 - Energization population from January 2021 - June 2024

Major Work Category ("MWC")	Population Total	Selection Amount
06	\$511,663,181	\$103,807,788
10	\$691,689,145	\$32,010,552
16	\$3,134,616,235	\$701,241,765
46	\$138,688,510	\$17,742,274
EV	\$50,843,984	\$16,749,707
Total	\$4,527,501,055	\$871,552,087
Population adjustments ²⁴	\$1,278,171,186	
Total adjusted population²⁵	\$3,249,329,869	\$871,552,087

Analytics

We analyzed the population of costs and performed the following analytics to identify activities that appear unusual, unreasonable, or unrelated to energization activities, as defined by SB 410, as follows:

1. Analyzed description fields within the SAP data, such as "CE Desc" and "Order Desc," to identify activities that appear unusual, unrelated or ineligible to energization activities, consistent with the directives from D.24-07-008.
2. Analyzed the distribution of costs per MWC and MAT to identify trends for analysis.
3. Analyzed the average costs per order within each MAT to identify potential outliers.

Based on the results of our analytics, we identified 3 MAT codes and 11,077 orders that should be adjusted out of our starting population, totaling \$1.3B, as of the date of this report.²⁶ The \$1.3B identified to date are not recommended accounting exclusions. Our starting population was

²⁴ PG&E's starting population was overinclusive, knowing the proceeding was still open and new guidance was coming out. During the course of our testing and data analytics, we identified costs totaling \$1.3B that should be adjusted out of the starting population, as of this report date. These findings are not recommended accounting exclusions, rather, this detail is reported so that users can reconcile to the starting population collected from SAP.

²⁵ PG&E's starting population for the financial analysis inadvertently did not include MAT 46A.

²⁶ Refer to the population adjustments in Table 7 above.

overinclusive, knowing the proceeding was still open and new guidance was coming out, such as D.24-07-008.

Procedures

We tested a statistical sample of orders totaling \$871M to assess whether appropriate project management policies and procedures are being followed during the project lifecycle, from project initiation to close-out, including specified outputs and management approvals at each stage.

EY performed the following testing steps for orders as follows:

1. Held walkthroughs with key stakeholders to understand the project lifecycle and project management procedures and controls in place.
2. Requested supporting documentation for sample of orders selected.
3. Analyzed project plans, designs and estimation summaries obtained from SAP to assess whether orders were sufficiently documented prior to execution.
4. Analyzed supporting documentation to assess whether projects were sufficiently documented and executed in accordance with plans. This included:
 - a. Evaluating whether assets constructed were defined and sufficiently documented.
 - b. Assessing documentation of any changes to planned procedures and estimates, as well as assessing the reason for those changes.
5. Analyzed AsBuilts and Construction Completion packages, which are comprehensive records detailing the purpose, design, and execution of construction work, to assess whether projects were related to energization activities, as defined by SB 410.
6. Evaluated project details to understand the type of work that was performed and assets that were constructed to assess whether projects were related to energization activities.
 - a. Evaluated project purpose, type (commercial, residential, etc.), capacity requirements, permitting requirements, third party involvement, locations and timing.

From our statistical sample of orders totaling \$871M, we made transaction selections to test whether costs related to the orders were reasonably and prudently incurred and related to energization. To test costs at the transactional level, we developed testing criteria, discussed below. Results of the procedures performed, relevant observations, and suggested exclusions were recorded in the case files for each transaction.

EY detailed testing steps for order expenditures were as follows:

1. Reconciliation of SAP data to supporting documentation:
 - a. Analyzed the underlying documentation to determine whether an invoice from a third party was provided.
 - b. Compared the invoice amount, vendor name, and other relevant identifiers to the relevant fields of SAP data to test whether vendor names were consistent, and dollar amounts agreed.
 - c. If an invoice or the underlying support was lacking sufficient information or was illegible, it was noted that additional documents or confirmations were needed to support the transaction amount.

2. Reasonableness testing:

- a. Performed analyses to determine if a transaction was reasonably and prudently incurred for the services provided by recalculating unit prices under each cost category (e.g., labor, equipment, materials, per diem, reimbursable expenses) and comparing those unit prices to prices charged by other vendors performing similar services. Where we did not have benchmarking data from other vendors performing similar services, other publicly available information including GSA Schedules, publications, public rate filings, etc. were considered. Where outliers were identified, additional documentation was requested. Additional procedures performed and the results of those procedures were documented within the relevant case files.
- b. Analyzed invoices, receipts, and other third-party support to determine whether vendors billed for items that are prohibited by PG&E's employee expense policy, such as alcohol, tobacco, or personal products and services.

3. Accuracy of recording

- a. We compared transaction detail to order level detail, including locations, project descriptions, dates, etc., to determine whether the invoice is appropriately charged to the correct order.
 - i. Analyzed the date range for services provided within the invoices, receipts, and other support and documented whether the services took place during the project scope period.
 - ii. Analyzed the location of services within the invoices, contracts, and other support and documented whether the services occurred in locations specified in the order packets.

4. Relevancy of transaction to SB 410:

- a. Analyzed the information provided in the invoice, contract, and other support to determine whether the activity recorded appears to be related to energization activity, as defined by SB 410 and D.24-07-008. We relied on Company policies and other guidance from PG&E described below to help identify the nature and timing of energization activities in addition to guidance detailed in the related proceeding, R. 24-01-018:
 - i. The ratemaking mechanism decision, D.24-07-008, provided guidance around what activities were eligible for recovery in the memorandum account and what activities were not.
5. For observations requiring further consideration, additional procedures were performed. In some instances, transactions can be either partially or fully unsupported. On a case-by-case basis, the dollar amount that did not fully meet the testing requirements was calculated and recommended for exclusion.

Observations to date

As of the date of this report and as a result of the procedures described above, we have identified approximately \$24K within the sampled orders that is recommended for exclusion. This amount was then extrapolated to the entire population to arrive at a total recommended exclusion of \$1.5M. See Appendix B for more information on the extrapolation methodology.

Below is a list of preliminary observations as of the date of this report:

1. Not related to SB 410: Identified one instance where an order for an in-kind replacement was incorrectly charged to an energization order, totaling \$487.
2. Does not align to contract: We have identified eight instances of costs within our sample population where rates billed were higher than the agreed upon rates in the contract, totaling \$3.9K.
3. Not reasonable/prudent: We have identified fourteen instances of costs within our sample population that do not appear reasonable or prudent, such as high rates, billing errors, improper billing of premium or double-time on non-holiday weekdays before hitting minimum straight time hours, unsupported subcontractor charges, and labor billed in excess of timesheet records. Identified amounts total \$15K.
4. Canceled orders: We have identified three samples within our testing population that were canceled. These orders should be removed, totaling \$4.8K.

Table 8 - Exclusions to date

Observation Reason	Identified Amounts	Total Extrapolated Amount
Not Related to SB 410	\$487	\$151,742
Does not align to contract	\$3,912	\$674,145
Not reasonable/prudent	\$15,032	\$520,570
Outside of order location	\$89	\$145,164
Canceled Order	\$4,760	\$4,760
Total exclusions to date	\$24,280	\$1,496,380

We will continue to test energization costs (from July 2024 on) consisting of both base and incremental spend and update this list with any additional exclusions identified in future reports.

IV. Appendix A - Mapping of auditor requirements to EY report

As noted in the executive summary, decisions within the energization proceeding dictated that the auditor should perform specific tasks. Many of these tasks were not contemplated in the current contract between PG&E and EY. EY is actively working with PG&E on a contract change order to include these additional requirements. Additionally, several of these tasks require data that is not available at this time. EY will continue to request and test more data as it becomes available. This assessment is a multi-year assessment where each report will build upon the last. Metrics not included in this report will be included in future reports.

#	Required Metrics	Reference	In current report?	Location Discussed in Report	Page
1	Energization Requests for Previous Three Years	SB 410 938 (a)(3)(A)	Yes	Energization requests from prior three years	11
2	Customer Demand Growth Projections in Distribution Plan	SB 410 938 (a)(3)(B)	Yes	Customer demand growth forecast	14
3	Qualified Staffing Levels	SB 410 938 (a)(3)(C)	Partial	Qualified staffing levels and future staffing projections To assess sufficiency of staffing levels, the most current timeline data assessed from PG&E's first biannual report included projects that were completed before the implementation of the updated staffing plan. As we continue to test more projects in the future, we will update our observations on the sufficiency of the current staffing plan.	17
4	Future Anticipated Staffing Needs	SB 410 938 (a)(3)(C)	Partial	Qualified staffing levels and future staffing projections PG&E's staffing projections are closely tied to customer demand growth forecasts, which are expected to undergo updates. In addition, PG&E is currently working on their staffing projections for the upcoming	17

				2027 GRC. We will continue to evaluate as additional information becomes available.	
5	Energization Funding Requests for Previous Three Years	SB 410 938 (a)(3)(D)	Yes	Forecasted and authorized funding	18
6	Commission Authorized Funding for Energization from Previous Three Years and Authorized Changes to Improve Energization Business Practices and Structures	SB 410 938 (a)(3)(E)	Yes	Forecasted and authorized funding	18
7	Future Authorized Energization Funding	SB 410 938 (a)(3)(E)	Partial	Forecasted and authorized funding For 2024-2026, we assessed forecasted and authorized amounts and compared to historical actuals. The cost data is not available at this time to compare to true actuals for that time period. PG&E is still developing and/or updating their forecasts for their upcoming 2027 GRC. Therefore, that data is not currently available for assessment.	18
8	Performance in Meeting CPUC-Established Energization Time Periods	SB 410 938 (a)(3)(F)	Yes	Timeline calculations	4
9	Performance in Meeting Internal Energization Time Periods	SB 410 938 (a)(3)(G)	Yes	Performance in meeting internal time periods	13
10	Other Metrics to Support Thorough Evaluation of Energization Performances (31)	Specific metrics provided by Energy Division.	No	Not a requirement of SB 410 or D.24-07-008. EY and PG&E are working on a contract change order, and we will plan to address these metrics, to the extent the data is available, in future reports.	n/a

		938 (a)(3)(H)			
11	Evaluation of Current Energization Performance	SB 410 938 (a)(4)	Yes	Operational assessment (All sections)	4
12	Evaluation of Future Energization Performance	SB 410 938 (a)(4)	No	Customer demand growth forecast PG&E is still developing and/or updating their forecasts for their upcoming 2027 GRC. Therefore, that data is not currently available for assessment.	n/a
13	Training and Retaining an Adequate Workforce	SB 410 938 (a)(4)	No	Not included in our Contract. Our quality standards do not permit us to report anything not included in our Contract. EY and PG&E are working on a contract change order.	n/a
14	Biannual Reports to the Commission	SB 410 938 (a)(5)	Yes	Executive summary All sections of this report.	All
15	Financial Analysis of base costs	D.24-07-008 Ordering Paragraph No. 14	Yes	Financial assessment	22
16	Financial Analysis Specific to Memorandum Account costs	D.24-07-008 Ordering Paragraph No. 26	No	We analyzed cost data by pulling specific time periods. As of June 2024, PG&E did not exceed authorized amounts. We will test memorandum account spend in the next report.	n/a
17	Verify and Report Number and Scope of Energization Projects	D.24-07-008 Ordering Paragraph No. 21	Partial	Requirement was issued in July 2024 after EY's Contract was signed; therefore, this requirement was not included in our Contract. However, certain procedures already performed in other sections address this topic.	4, 22 (Table 7 footnote and analytics section)

				PG&E's Biannual Energization Report Financial assessment - As part of our financial analysis, we performed data analytics across the population and identified costs not related to SB 410. Additional analyses and/or metrics will require a contract change order.	
18	Recommendation to Which Types of Projects Are Similar Enough for Meaningful Average Costs or Costs Correlated with Known Data	D.24-07-008 Ordering Paragraph No. 21	No	Requirement was issued in July 2024 after EY's Contract was signed; therefore, this requirement was not included in our Contract. Our quality standards do not permit us to report anything not included in our Contract. EY and PG&E are working on a contract change order.	n/a
19	Distributed Energy Resource Management Systems (DERMS) Report to be sent to auditor no later than January 1 and July 1 of each year and in its next GRC	D.24-07-008 Ordering Paragraph No. 24	No	Requirement was issued in July 2024 after EY's Contract was signed; therefore, this requirement was not included in our Contract. Our quality standards do not permit us to report anything not included in our Contract. EY and PG&E are working on a contract change order.	n/a
20	Dynamic and Demand Flexibility Rates Report to be sent to auditor no later than January 1 and July 1 of each year	D.24-07-008 Ordering Paragraph No. 25	No	Requirement was issued in July 2024 after EY's Contract was signed; therefore, this requirement was not included in our Contract. Our quality standards do not permit us to report anything not included in our Contract. EY and PG&E are working on a contract change order.	n/a

V. Appendix B - Statistical report

**Pacific Gas and Electric Company
2024
Energization order
Sampling and estimation report**

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Introduction

The purpose of the Pacific Gas and Electric Company (PG&E) 2024 energization order sampling study was to estimate the total error amount for the PG&E energization order population related to the total order cost from fiscal year (FY) 2021 through 2024. This report focuses exclusively on the statistical sampling and estimation methodology of the study. Decisions about the review process and the sample determinations are not part of this report.

Questions regarding the sampling and estimation methodology can be directed to Siyu Qing at (202) 327-7210 or Ryan Petska at (202) 327-7245.

Section I: Executive summary

A stratified sample of 157 energization orders (orders) was selected from a sampling population of 66,243 orders. Based on the results of the sample, it was estimated that the total error amount was \$1,491,621 with margins of error of \$677,453 and \$811,160 at 90 and 95 percent confidence levels, respectively.

Table 1 summarizes the estimation results.

Table 1. Estimation summary

Estimation Category	Estimated Amount	Margin of Error at 90% Confidence Level	Margin of Error at 95% Confidence Level
Total Error Amount	\$1,491,621	\$ 677,453	\$ 811,160

Section II: Population

Population

The original population contained 83,018 orders totaling \$4,527,501,055 in order cost (cost) from FY2021 through FY2024. After removing orders with zero costs, the final population consisted of 78,000 orders totaling \$4,527,501,055 in cost. The final population also contained -\$248,722,476 in negative orders (credits) which were set aside during sample design and adjusted for during estimation via a credit adjustment. Therefore, the resulting sampling population contained 66,243 orders totaling \$4,776,223,532 in cost.

A summary of the population is provided in Table 2.

Table 2. Population summary

	Total Net		Positives (Debits)		Negatives (Credits)	
	Amount	Number of Records	Amount	Number of Records	Amount	Number of Records
Original Data	\$4,527,501,055	83,018	\$4,776,223,532	70,433	\$(248,722,476)	12,585
- Zero	\$ -	5,018	\$ -	4,190	\$ -	828
Final Population	\$4,527,501,055	78,000	\$4,776,223,532	66,243	\$(248,722,476)	11,757
Sampling Population	\$4,776,223,532	66,243	\$4,776,223,532	66,243	\$ -	-

Sampling unit

The sampling unit was an individual order.

Sampling frame

The sampling frame consisted of 66,243 orders totaling \$4,776,223,532 in cost.

Section III: Sample design

Stratification

A stratified random sample design was used for the study. Stratified sample designs are highly efficient designs that often allow confidence and precision goals to be obtained with smaller samples than would be required with simple random samples. The population data was divided into groups, or *strata*, and each stratum was sampled separately, with different sampling rates to increase the efficiency of the design. During estimation, the sampled records were appropriately weighted to reflect the sampling rates for the different strata. In this study, the individual order's cost amount was used as the basis for stratification.

A certainty or take-all stratum was defined for orders with large costs relative to the rest of the data (greater than or equal to \$12,000,000). Orders in this stratum (stratum 6) were sampled at a rate of 100 percent in an effort to improve the stability of the estimate. The remaining non-certainty stratum boundaries were determined to approximately equalize the population size (Nh) multiplied by the estimated standard deviation (Sh) across the non-certainty strata.

The sample design is shown below in Table 3.

Table 3. Sample design summary

Stratum Number	Stratum Definition	Population Size	Population Cost	Sample Size	Sample Cost
1	\$0 to \$49,659.99	51,503	\$ 631,384,908	30	\$ 372,391
2	\$49,660 to \$161,515.99	9,854	\$ 871,774,694	30	\$ 2,724,419
3	\$161,516 to \$448,896.99	3,438	\$ 894,974,113	30	\$ 8,022,406
4	\$448,897 to \$1,590,881.99	1,238	\$ 915,432,028	30	\$ 23,715,999
5	\$1,590,882 to \$11,999,999.99	203	\$ 730,494,725	30	\$104,553,809
6	\$12,000,000 and above	7	\$ 732,163,063	7	\$732,163,063
Total		66,243	\$4,776,223,532	157	\$871,552,087

Section IV: Sample selection and results

Source and seed of random numbers

The function RANUNI in the statistical software, SAS, was used to generate the random numbers for sample selection. The seed used to generate the random numbers was 8301800.

Method of associating random numbers to the frame

Using the RANUNI function in SAS and the random seed mentioned above, a random number was directly assigned to each record in the original population.

Serialization of frame

Prior to generating random numbers in SAS, the population was sorted by the field, Order. The purpose of this sort was to place the file in a reproducible and verifiable order so the random number assignment was independent of an arbitrary frame sequence.

Method of selection

To select the sample, the sampling frame was sorted by stratum and the random numbers described above. Thus, the entire file was put into random order within a stratum. Then, the required number of orders per stratum was selected according to this random order. For example, the first 30 orders in this random order were selected for stratum one.

Sample results

The results of the sample review are available upon request. Table 4 provides a summary of the results by stratum.

Table 4. Sample results summary

Stratum Number	Stratum Definition	Population Size	Population Cost	Sample Size	Sample Cost	Sample Error Amount
1	\$0 to \$49,659.99	51,503	\$ 631,384,908	30	\$ 372,391	\$ 122
2	\$49,660 to \$161,515.99	9,854	\$ 871,774,694	30	\$ 2,724,419	\$ 2,675
3	\$161,516 to \$448,896.99	3,438	\$ 894,974,113	30	\$ 8,022,406	\$ 2,165
4	\$448,897 to \$1,590,881.99	1,238	\$ 915,432,028	30	\$ 23,715,999	\$ 5,034
5	\$1,590,882 to \$11,999,999.99	203	\$ 730,494,725	30	\$104,553,809	\$ 3,644
6	\$12,000,000 and above	7	\$ 732,163,063	7	\$732,163,063	\$ 5,881
Total		66,243	\$4,776,223,532	157	\$871,552,087	\$19,521

Section V: Estimation

Standard statistical methods were used to produce the estimates from the stratified sample. Differences in the probabilities of selection among strata were properly accounted for by statistical weighting. The mean per unit (MPU) estimator²⁷ was used to compute the estimated total error amount.

The MPU estimator

The MPU estimator is the weighted sum of the sample means of error amount over all strata. In stratified sampling with L strata, this can be represented as

$$\hat{Y}_{mpu} = \sum N_h \bar{y}_h,$$

²⁷ Roberts, D. M. (1978) *Statistical Auditing*, American Institute of Certified Public Accounts, Inc., New York.

where

N_h is the number of orders in stratum h ,
 $\bar{y}_h$ is the sample mean of error amount and
 $h = 1$ to L , the number of strata.

The standard error of the MPU estimate is given by

$$\hat{S}(\hat{Y}_{mpu}) = \sqrt{\sum N_h(N_h - n_h)S_{yh}^2/n_h},$$

where

$S_{yh}^2 = \sum \frac{(y_{hi} - \bar{y}_h)^2}{n_h - 1}$ is the sample variance of error amount in stratum h .

Confidence limits were calculated from the estimate plus or minus its margin of error, where the margin of error is computed as the standard error times the Student's t-value with a 90 or 95 percent two-sided confidence.

The degrees of freedom for the t-value were approximated using the Satterthwaite formula as follows:

$$n_e = \left(\sum g_h S_{yh}^2 \right)^2 / \sum \frac{g_h^2 S_{yh}^4}{n_h - 1},$$

where

$$g_h = N_h(N_h - n_h)/n_h.$$

As a result of the Satterthwaite adjustment, the t-value used in estimation was 1.672 and 2.002 for a 90 and 95 percent confidence level, respectively.

Table 5 shows the estimated total error amount and its associated precision measures.

Table 5. Estimation results summary

	Estimated Amount	Standard Error	90% Two-sided Confidence Level			95% Two-sided Confidence Level		
			Margin of Error	Lower Bound	Upper Bound	Margin of Error	Lower Bound	Upper Bound
Total Error Amount	\$1,491,621	\$405,175	\$677,453	\$814,168	\$2,169,073	\$811,160	\$680,460	\$2,302,781

Credit adjustments

The estimated total error amount was adjusted to account for the -\$248,722,476 remaining credits. The overall estimated total error amount, determined from the sample (positive amounts only), was adjusted by applying the estimated error percentage of 0.03 percent to the unmatched credits (-\$248,722,476). Therefore, the adjusted estimated total error amount was calculated as follows:

$$\$1,573,564 + (0.03\% * (-\$248,722,476)) = \$1,491,621.$$

The associated precision measures (standard error, margin of error, etc.) were adjusted in a similar fashion.

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