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| **Project Title:** | Electricity and Gas Demand Forecast |
| **TN #:** | 263248 |
| **Document Title:** | PG&E 2025 IEPR Natural Gas Demand- Supporting Documents Narrative |
| **Description:** | PG&E's narrative addressing the additional reports and supporting attachments the CEC requests as part of the 2025 IEPR Gas files |
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| **Organization:** | PG&E |
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California Energy Commission
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**SUPPORTING DATA**
**Natural Gas Demand and Rate Forecasting Forms**

Per the California Energy Commission's (CEC) Forms and Instructions to submit the gas related IEPR Forms, parties are requested to provide an electronic file containing data for Forms one, two, and three using the questions listed below.

Pacific Gas and Electric Company (PG&E) provides the following answers to the questions posed in the Forms and Instructions with the accompanying supplemental attachments and links below.

**1. *A description and map of the gas utility service area and, if different, the area for which the gas utility forecasts demand.***

For a map of the gas service area and accompanying documentation, please refer to PG&E's tariff book at https://www.pge.com/tariffs/assets/pdf/tariffbook/GAS_PRELIM_A.pdf (Sheet 8), along with the description provided in Rule 2, at the following link: https://www.pge.com/tariffs/assets/pdf/tariffbook/GAS_RULES_2.pdf.

The Electric and Gas service area maps were last updated in 2014 with Advice 3531-G/4535-E (November 17, 2014) and Advice 3531-G-A/4535-E-A (December 15, 2014) to add the eligible zip codes to the map information.

**2. *Historical data set used to identify the temperature for the extreme peak day.***

We attach the workbook *Question 2 Supplemental_PG&E_2024 Cal Gas Report Temperature Data,* as well as direct the CEC to the previously-submitted Historical Temperature Data Set for PG&E 2023 IEPR Gas Demand Forms (TN# 250245 on docket 23-IEPR-03), for the historical data set used to identify the temperature for the extreme peak day. The attachment contains new data from April 2022-April 2024. Extreme peak day temperature calculations were based on historical values from January 1, 1950, to May 1, 2024. The data used is system-wide composite temperatures, which are the weighted averages of six weather stations throughout PG&E's service territory. The 'Data' tab contains the composite temperature: average, wind speed, HDDW65 (wind adjusted heating degree days at 65° Fahrenheit), and wind adjusted core temperature.

**3.** ***A presentation of the demographic and economic assumptions that underlie the forecast, including assumptions about geographic changes in the service area or movement of customers to or from other utilities.***

PG&E does not assume any geographic changes in the company's service area. The demographic and economic assumptions that underlie the forecast come primarily from Moody's analytics, which provides updated forecasts for household population and employment outlook several times a year. These values have been included in PG&E's response for Form 1.8. This forecast was generated using information available in spring 2024.

**4.** ***Forecasted demand for each year of the forecast, accounting for conservation reasonably expected to occur, beginning with the year in which the forecast is submitted.***

Form 1, specifically Forms 1.1, 1.2, 1.5, and 1.10, include the forecasted demand for each year of the forecast and accounts for conservation reasonably expected to occur. Forecasts of energy demand are contained in Forms 1.1 and 1.2 and forecasts of peak demand, which are produced with less granularity, are contained in Form 1.5. Because there is not a natural "zero point" for energy efficiency, we provide a forecast of incremental efficiency gains; this is contained in Form 1.10.

Conservation includes steps taken to cause less energy to be used than would otherwise be the case. These steps may involve improved efficiency, avoidance of waste, reduced consumption, etc. They may involve installing equipment (such as a controller to optimize energy use), modifying equipment (such as making a boiler more efficient), adding insulation, changing behavior patterns, etc.

**5.** ***Plausibility, sensitivity, and alternative economic scenario analyses.***

Sensitivity of the forecast to economic and demographic assumptions varies between customer categories. Core customers – residential and small business – are most sensitive to population and employment values. However, this sensitivity is still not high, and these drivers tend to be fairly stable in the long run. Such customers tend to be less price sensitive. More sensitive to prices are the industrial customers, and most sensitive of all to prices are electric generators, whose decision to run at all is determined by the spark spread between electricity prices and gas costs.

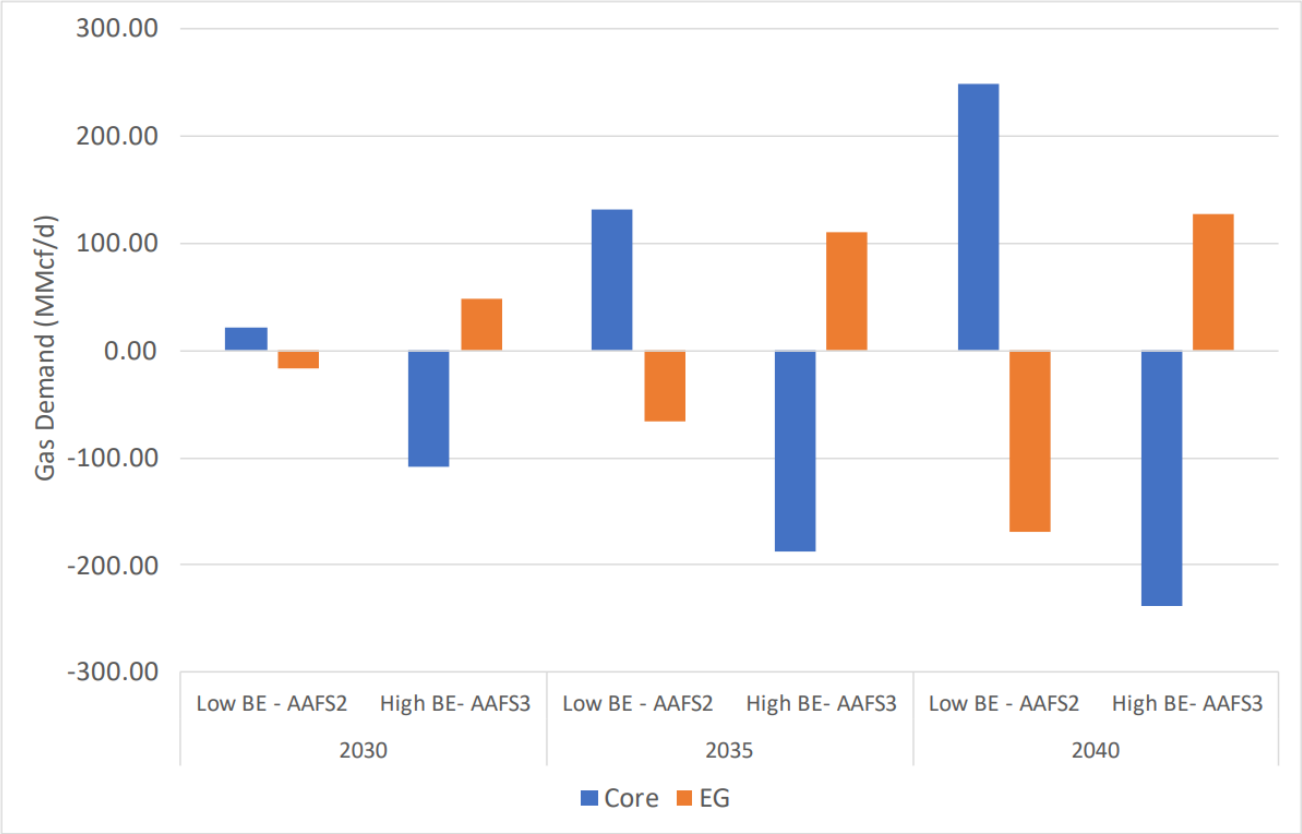
PG&E did not run alternative economic scenarios. The plausibility of the scenario presented here depends, in the short run, on the stability of the price outlook for price-sensitive load and in the long run on the continuation and success of policy initiatives such as energy efficiency and building electrification. In the long run, these dominate the effect of plausible alternative economic scenarios.

Although not specifically a plausibility, sensitivity, or alternative economic scenario analysis, PG&E did discuss some key factors of uncertainty impacting the Core and Electric Generation (EG) customer classes in the 2024 California Gas Report[*]. These include an estimated change in throughput on these two classes in selected years. Estimates utilize the AAFS 2 and AAFS 3 scenarios published by the CEC in the 2023 IEPR for the PG&E Planning Area. Core changes represent changes to the PG&E Gas Service Area forecast and changes to EG represent

[*] 2024 California Gas Report, pages 50-55

changes in market-responsive throughput for electric generation customers connected to PG&E's natural gas system. The figure is pasted below. Additional key drivers of EG uncertainty discussed include import availability, location of renewable resources and the impact of CAISO transmission system limitations, and hydroelectric generation in both California and the Pacific Northwest.

**FIGURE 6 – CHANGE IN NORTHERN CALIFORNIA CORE AND NON-CORE EG DEMAND UNDER 2023 IEPR BE SCENARIOS**




**6 & 7. A *description of each conservation activity carried out by the utility and those proposed for future implementation, as well as estimation of the additional cost-effective conservation potential and the impact of possible methods to achieve this potential.***

Public Utilities Code Sections 454.56(a) require the CPUC, in consultation with the CEC, to identify potentially achievable cost-effective natural gas efficiency savings and to establish efficiency targets for gas corporations to achieve. Within CPUC Rulemaking R. 13-11-005, Commission staff regularly utilize an "Energy Efficiency Potential and Goals Study" to both identify this potential as well as to recommend gas corporations' goals be set according to the study's results.

The PG&E Energy Efficiency Portfolio pursues cost-effective natural gas efficiency savings as established in the most recent Potential and Goals Study and as adopted in accordance with the above regulations. PG&E achieves these savings through a portfolio of voluntary as well as building code and appliance standard customer programs across the customer sectors within our service territory. The voluntary programs offer ratepayer

funded incentives, rebates, and financing to improve customer facilities, electrify building loads, and modify operations to increase energy efficiency. Our state and national building code and appliance standards work offers leadership and support for regulatory and policy revisions to improve energy efficiencies through statutes. Following additional CPUC guidance provided within R. 13-11-005 and its successor R. 25-04-010, the PG&E Energy Efficiency Portfolio procures most of these programs and offerings, which are designed and delivered by third-party providers. PG&E's Energy Efficiency Business plan application (A.22-02-005) describes the vision for PG&E's future energy efficiency activities, including the guiding principles, goals, and strategies for implementing the energy efficiency portfolio for 2025 and beyond.

**8.** ***Most recent report submitted under California Public Utilities Commission General Order 112-F Section 123.***

PG&E submitted Gas Distribution and Transmission System Annual Reports to PHMSA and SED on March 5, 2025 and, as required by CPUC General Order 112-F Section 123, submitted a copy of those reports to the CPUC. Attached are the following 2024 Annual Reports:

- Question 8 Supplemental_PG&E_CY2024_PHMSA Form F 7100.1-1 (Gas Distribution System)
- Question 8 Supplemental_PG&E_CY2024_PHMSA Form F 7100.2-1 (Gas Transmission System) for PG&E
- Question 8 Supplemental_PG&E_CY2024_PHMSA Form F 7100.2-1 (Gas Transmission System) for StanPac
- Question 8 Supplemental_PG&E_CY2024_PHMSA Form F 7100.2-3 (Type-R Gas Gathering)
- Question 8 Supplemental_PG&E_CY2024_PHMSA Form F 7100.3-1 (LNG)
- Question 8 Supplemental_PG&E_CY2024_PHMSA Form F 7100.4-1 (UNGSF)
- Question 8 Supplemental_PG&E_CY2024_CPUC GO-112-F Annual Report, submitted March 7, 2025[†]

**9.** ***Detailed forecast workpapers.***

We attach the workpapers from the 2024 California Gas Report since the forecast component of these forms is the same:

- Question 9 Supplemental_PG&E_2024 CGR Workpaper Master PUBLIC
- Question 9 Supplemental_ PG&E_2024 CGR Annual and Monthly PG&E On-System Demand Forecast

**10.** ***A description of financial variables and assumptions used to derive the natural gas price forecasts.***

In the 2024 California Gas Report, PG&E, SoCalGas, and SDG&E utilized gas prices provided by S&P Global Commodity Insights in February 2024. S&P Global refers to this forecast as its "February 2024 Natural Gas Long-Term Market Outlook". The commodity price data provided in PG&E's response to forms 1.6 and 3.1 come from this market outlook. Although PG&E does not have access to the proprietary models used by S&P Global to produce these price forecasts, the vendor provided PG&E with the following Confidential presentations when prompted by PG&E for details supporting their methodology. These documents describe the larger market conditions present when S&P Global produced this forecast as well as their Natural Gas Forecast Modeling system.

[†]Note: General Order 112F Annual Report is in .xlsx format.

- Question 10 Supplemental _ PG&E_North American Natural Gas LongTerm Outlook February 2024_CONF
- Question 10 Supplemental _ PG&E_Integrated modeling and analysis of North American natural gas power and power markets_CONF