

Exhibit No: \_\_\_\_\_  
Application: A.25-09-XXX  
Witness: R. Fiola  
Chapter: 4

**PREPARED DIRECT TESTIMONY OF ROBERT FIOLA**  
**ON BEHALF OF SOUTHERN CALIFORNIA GAS COMPANY**  
**AND SAN DIEGO GAS & ELECTRIC COMPANY**  
**(LARGE ELECTRIC GENERATION/COGEN FORECAST)**

September 30, 2025

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1 **CHAPTER 4**

2 **PREPARED DIRECT TESTIMONY OF ROBERT FIOLA**  
3 **(LARGE ELECTRIC GENERATION/COGEN FORECAST)**

4 **I. PURPOSE**

5 The purpose of my direct testimony is to present a portion of the forecast of natural gas  
6 demand for electric generation (EG) customers for the Cost Allocation Proceeding (CAP) period  
7 (2027 - 2029) for Southern California Gas Company (SoCalGas) and San Diego Gas & Electric  
8 Company (SDG&E). My testimony covers the portion of the EG market comprised of: (1)  
9 utility electric generation (UEG) customers; Southern California Edison Company (SCE);  
10 SDG&E; the cities of Anaheim, Burbank, Colton, Corona, Glendale, Pasadena, Riverside, and  
11 Vernon; the Los Angeles Department of Water and Power (LADWP); and the Imperial Irrigation  
12 District (IID); (2) exempt wholesale generation (EWG) customers; and  
13 (3) SoCalGas and SDG&E large cogeneration customers with generating capacity greater than  
14 20 megawatts (MW).

15 **II. EG FORECAST METHODOLOGY**

16 Due to the complex interaction of the electric supply and electric demand components,  
17 the EG natural gas demand forecast of the UEG, EWG, and large cogeneration customers is  
18 based on an analysis of the operation of power plants in the Western United States electric  
19 market using a production cost model. This method was used in both the 2024 CAP  
20 Application<sup>1</sup> and the 2024 California Gas Report. This forecast uses the PLEXOS model  
21 (Model) developed by the software provider Energy Exemplar, Inc. The Model evaluates, in  
22 detail, the least-cost dispatch of the electricity supply to meet system demand on an hourly basis

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<sup>1</sup> Application (A.) 22-09-015.

1 and provides results of generation unit output, including fuel burn. The major inputs used in the  
2 Model are discussed below.

### 3 **A. Electricity Demand**

4 The electric demand forecast for California used in the Model is from the California  
5 Energy Commission's (CEC) California Energy Demand Forecast Update, 2024 – 2040, adopted  
6 January 2025.<sup>2</sup> This energy demand forecast was developed as part of the CEC's Integrated  
7 Energy Policy Report process. The mid energy demand forecast with Additional Achievable  
8 Energy Efficiency (AAEE) Scenario 3 and Additional Achievable Fuel Substitution (AAFS)  
9 Scenario 3 Programmatic was selected as the energy demand forecast. For the remainder of the  
10 Western Electricity Coordinating Council (WECC), I used the electric demand forecasts within  
11 the PLEXOS database.<sup>3</sup> CEC develops these forecasts by collecting data from various sources  
12 including demand forecasts filed by utilities with the Federal Energy Regulatory Commission  
13 (FERC).

### 14 **B. Availability of Hydroelectricity**

15 Limited multi-year water storage in California and the Pacific Northwest (PNW) makes  
16 annual hydroelectric generation dependent on each year's snowpack run-off. The PLEXOS  
17 database uses the 15-year average hydro conditions. Because the hydroelectric generation  
18 exhibits a year-to-year random variability, the forecast assumes that the availability of  
19 hydroelectricity generation in California and the PNW will be equal to the 15-year average.

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<sup>2</sup> Refer to the CEC report: CEC, *2021 Integrated Energy Policy Report*, available at:  
<https://www.energy.ca.gov/publications/2021/2021-integrated-energy-policy-report>.

<sup>3</sup> The Model covers the entire WECC region: 14 western states, 2 Canadian provinces, and Northern Baja Mexico. The power simulation encompasses the entire WECC footprint. CEC provided data for all the states and provinces. I updated the electricity demand for California only, with CEC's electricity demand forecast.

1           **C.      Generation Capacity**

2           The generator operating characteristics used in the Model are based on values provided  
3 by CEC.

4           In this forecast, the generating resource additions follow the adopted 2023 Preferred  
5 System Plan (PSP), which also assumes compliance with the Mid-Term Reliability (MTR)  
6 Decision 21-06-035. The PSP portfolio includes approximately 8,400 MW of new energy  
7 storage resources by 2027 and 10,000 MW by 2029. The PSP portfolio also includes  
8 approximately 9,600 MW of new renewable resources by 2027 and 17,600 MW by 2029.

9           In both SoCalGas and SDG&E service areas, there are no additional gas-fired generating  
10 resources. The once through cooling (OTC) plants with total capacity of 2,905MW are expected  
11 to retire by 12/31/2026. They are the Alamitos, Huntington Beach, and Ormond Beach plants.  
12 The Redondo Beach plant retired in 2023. California has adopted an aggressive PSP to meet a  
13 stringent greenhouse gas (GHG) target of 30 million metric ton (MMT) by 2030. While  
14 California load-serving entities (LSEs) are working to meet their GHG goals, there are  
15 uncertainties as to how much renewable power and energy storage resources will be added  
16 specifically during the CAP period. The current supply chain constraints and increased raw  
17 material costs may delay certain projects.

18           **D.      Electric Transmission**

19           The addition of large transmission projects, especially ones that interconnect Southern  
20 California with other regions and states, can have an impact on UEG and EWG demand in the  
21 service territories of both SoCalGas and SDG&E. There is no new major transmission line  
22 added in this forecast as there are no known projects expected to come online during the CAP  
23 period.

## **E. Greenhouse Gas (GHG) Cap-and-Trade Program Costs**

In response to Assembly Bill 32, the California Air Resources Board (ARB) implemented a Cap-and-Trade program for GHG emissions beginning in 2013. The forecast of natural gas demand for UEG and EWG customers assumes GHG compliance costs based on recent futures market prices of \$50-100 per metric ton of carbon dioxide equivalent (MTCO<sub>2</sub>e).

## **III. UEG, EWG, AND LARGE COGENERATION FORECAST**

The UEG, EWG, and large cogeneration forecast, based on the above discussed assumptions for the years 2027 through 2029, is shown in Table 1.

**Table RF-1: Annual EG and Large Cogeneration Forecast (MMDth)**

<i>Year</i>	<i>SDG&amp;E</i>	<i>SoCalGas</i>	<i>Total</i>
2027	26	176	202
2028	27	184	211
2029	27	189	216
Average	27	183	210

## **IV. WINTER PEAK FORECAST**

To establish the marginal demand measures presented in the direct testimony of Eduardo Martinez (Chapter 5), a winter peak day<sup>4</sup> forecast was developed for UEG, EWG, and large cogeneration natural gas demand. The winter peak demand is the coincidental peak day of the total SoCalGas and SDG&E system. The result is shown in Table RF-2.

<sup>4</sup> Winter peak day is the day in December which has the highest EG throughput of the combined SDG&E and SoCalGas system.

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**Table RF-2: Winter Coincidental Peak Day Demand (MDth/day)**

<i>Year</i>	<i>SDG&amp;E</i>	<i>SoCalGas</i>	<i>Total</i>
2027	200	749	949
2028	195	757	952
2029	216	761	977

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This concludes my prepared direct testimony.

1   **V.     QUALIFICATIONS**

2           My name is Robert Fiola. My business address is 555 West Fifth Street, Los Angeles,  
3 California, 90013. I am employed by SoCalGas as a Senior Resource Planner in the  
4 Transmission & Storage Strategy Group. My responsibilities include the development of natural  
5 gas demand forecasts for EGs in the service areas of both SoCalGas and SDG&E and evaluating  
6 various EG related projects.

7           I have a Bachelors of Science degree in Mechanical Engineering from California  
8 Polytechnic University, Pomona. I am a registered Professional Mechanical Engineer in  
9 California. I have previously worked in Gas Supply, Operations Control, Transmission and  
10 Distribution Planning departments. I have been employed by SoCalGas since 1989.

11          I have previously testified before the Commission.