

**SAN DIEGO GAS & ELECTRIC COMPANY  
SOUTHERN CALIFORNIA GAS COMPANY  
PIPELINE SAFETY & RELIABILITY PROJECT (PSRP)  
(A.15-09-013)  
(DATA REQUEST SIERRA CLUB-SDG&E-02)**

**Date Requested: April 8, 2016  
Date Responded: April 22, 2016**

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**PRELIMINARY STATEMENT**

1. These responses and objections are made without prejudice to, and are not a waiver of, SDG&E's and SoCalGas' right to rely on other facts or documents in these proceedings.
2. By making the accompanying responses and objections to these requests for data, SDG&E and SoCalGas do not waive, and hereby expressly reserves, its right to assert any and all objections as to the admissibility of such responses into evidence in this action, or in any other proceedings, on any and all grounds including, but not limited to, competency, relevancy, materiality, and privilege. Further, SDG&E and SoCalGas makes the responses and objections herein without in any way implying that it considers the requests, and responses to the requests, to be relevant or material to the subject matter of this action.
3. SDG&E and SoCalGas will produce responses only to the extent that such response is based upon personal knowledge or documents in the possession, custody, or control of SDG&E and SoCalGas, as set forth in the California Public Utilities Commission ("Commission or CPUC") Rules of Practice and Procedure. SDG&E and SoCalGas possession, custody, or control does not include any constructive possession that may be conferred by SDG&E's and SoCalGas' right or power to compel the production of documents or information from third parties or to request their production from other divisions of the Commission.
4. A response stating an objection shall not be deemed or construed that there are, in fact, responsive information or documents which may be applicable to the data request, or that SDG&E and SoCalGas acquiesces in the characterization of the premise, conduct or activities contained in the data request, or definitions and/or instructions applicable to the data request.
5. SDG&E and SoCalGas expressly reserves the right to supplement, clarify, revise, or correct any or all of the responses and objections herein, and to assert additional objections or privileges, in one or more subsequent supplemental response(s).
6. SDG&E and SoCalGas will make available for inspection at their offices any responsive documents. Alternatively, SDG&E and SoCalGas will produce copies of the documents.
7. Publicly available information and documents including, but not limited to, documents that are part of the proceeding record, newspaper clippings, court papers, and materials available on the Internet, will not be produced.

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**GENERAL OBJECTIONS**

1. SDG&E and SoCalGas object to each instruction, definition, and request to the extent that it purports to impose any requirement or discovery obligation greater than or different from those under the CPUC Rules of Practice and Procedure, Statutes, and the applicable Orders of the Commission.
2. SDG&E and SoCalGas object to each request that is overly broad, unduly burdensome, or not reasonably calculated to lead to the discovery of admissible evidence.
3. SDG&E and SoCalGas object to each instruction, definition and data request to the extent that it seeks information protected from disclosure by the attorney-client privilege, deliberative process privilege, attorney work product doctrine, or any other applicable privilege. Should any such disclosure by SDG&E and SoCalGas occur, it is inadvertent and shall not constitute a waiver of any privilege.
4. SDG&E and SoCalGas object to each instruction, definition and data request as overbroad and unduly burdensome to the extent it seeks documents or information that are readily or more accessible to Sierra Club from Sierra Club's own files, from documents or information in Sierra Club's possession, or from documents or information that SDG&E and SoCalGas previously released to the public or produced to Sierra Club. Responding to such requests would be oppressive, unduly burdensome, and unnecessarily expensive, and the burden of responding to such requests is substantially the same or less for Sierra Club as for SDG&E and SoCalGas.
5. SDG&E and SoCalGas object to each instruction, definition and data request to the extent that it seeks the production of documents and information that were produced to SDG&E and SoCalGas by other entities and that may contain confidential, proprietary, or trade secret information.
6. To the extent any of Sierra Club's data requests seek documents or answers that include expert material, including but not limited to analysis or survey materials, SDG&E and SoCalGas object to any such requests as premature and expressly reserves the right to supplement, clarify, revise, or correct any or all responses to such requests, and to assert additional objections or privileges, in one or more subsequent supplemental response(s) in accordance with the time period for exchanging expert reports set by the Commission.
7. SDG&E and SoCalGas incorporate by reference every general objection set forth above into each specific response set forth below. A specific response may repeat a general objection for emphasis or some other reason. The failure to include any general objection in any specific response does not waive any general objection to that request. Moreover, SDG&E and SoCalGas do not waive their right to amend any responses.

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**QUESTION 1:**

In the Direct Testimony of Travis Sera, p. 8, Mr. Sera lists the remediation activities performed on Line 1600 to repair defects discovered in the course of in-line inspection, including “10 cylindrical replacements,” “39 repair bands,” and “84 grind repairs.”

- a) Did performing these repairs result in any interruption of gas service to any customers?
- b) If yes, please state for each service interruption:
  - i) the length of time service was interrupted, and
  - ii) the total number of customers whose service was interrupted.
- c) If no, please explain how interruptions to service were avoided.
- d) Please identify the witness responsible for this answer.

**RESPONSE 1:**

- a. No
- b. N/A
- c. Repairs were relatively minor in nature and were completed during a period when all other transmission elements were operating normally and gas system demand was low enough that the continuous flow of Line 1600 could be interrupted without impacting overall deliverability. During the repairs, customers received service from the north and south of the isolated section.
- d. SoCalGas’ Gas Transmission Operations department

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**QUESTION 2:**

In the Direct Testimony of Travis Sera, p. 10, Mr. Sera writes, “The Line 1600 PIR score has been adjusted using a multiplication factor to reflect the existence of hook cracking in the flash-welded seam.

- a) What was the PIR score for Line 1600 before it was adjusted using a multiplication factor?
- b) What is the multiplication factor used to adjust the PIR score for Line 1600?
- c) Please explain SDG&E’s rationale for choosing this specific multiplication factor. (For example, if the PIR score was adjusted by a multiplication factor of 2, please explain why “2” was thought to be appropriate, rather than “3” or “1.5”.)
- d) Please provide any applicable reference materials or regulatory guidance that influenced SDG&E’s choice of the specific multiplication factor.
- e) Please identify the witness responsible for this answer.

**RESPONSE 2:**

- a) The PIR score for Line 1600 before it was adjusted using a multiplication factor was 279.
- b) The multiplication factor of 1/0.8 was used to adjust the PIR score for Line 1600.
- c) To consider the presence of anomalies in Line 1600’s electric flash welded seam, a joint factor of 0.8 was selected as a reasonable conservative factor for risk score adjustment consistent with the factor in CFR § 192.113 for pipe designated as “Other” when a joint factor cannot be determined.
- d) See the specification for “Other” in CFR § 192.113 – Longitudinal joint factor (E) for steel pipe.
- e) Travis Sera

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**QUESTION 3:**

Page 41 of the Amended Application states:

The Ruling (at 16) also requires the Applicants to provide ... “ten-year historic daily and annual maximum volumes through Line 1600.” SDG&E does not measure throughput by individual pipeline on its system. System throughput measured at Rainbow Metering Station showing the combined daily throughput for Line 1600 and Line 3010, for the 2011-2014 time period, is provided in Appendix E.

However, in Question 11 of TURN’s first data request to SDG&E (SDG&E-TURN-01), TURN requested “Daily flows on Line 1600.” In response, SDG&E’s provided an Excel spreadsheet and stated, “daily throughput ... are available in the attached spreadsheet.”

- a) Please explain how data on “daily throughput” for Line 1600 was provided to TURN if, as stated on page 41 of the Application, “SDG&E does not measure throughput by individual pipeline on its system.”
- b) Please provide the Excel spreadsheet provided to TURN in response to data request TURN-SDG&E-01 titled “TURN DR11A.”

**RESPONSE 3:**

- a. While it is accurate that SDG&E does not measure throughput by individual pipeline for the majority of pipelines on its system, as of May 2011, it does have metered deliveries into Line 1600 at the custody transfer point with SoCalGas (Rainbow Meter Station). And in fact, that was the data that was provided in Appendix E of the Amended Application.

This data represents only volumes delivered into Line 1600 at the Rainbow Meter Station. Line 1600 has two other unmetered interconnects with rest of the SDG&E system south of the Rainbow Meter Station which impact its transported volumes.

- b. Please see attached:



TURN DR11A.xlsx

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**QUESTION 4:**

On page 2, lines 10-11, of the Direct Testimony of Daniel Bisi, Mr. Bisi writes that “Line 1600 is a 16-inch natural gas transmission pipeline that provides approximately 10 percent of SDG&E’s capacity.” Mr. Bisi also states on page 2, lines 14-15, that Line 3010 “provides approximately 90 percent of SDG&E’s capacity.”

Page 41 of the amended Application states, “SDG&E does not measure throughput by individual pipeline on its system.”

- a) Was the determination that Line 1600 provides 10 percent of SDG&E’s capacity while Line 3010 provides 90 percent of SDG&E’s capacity based on historical volumes transported through Line 1600 and Line 3010?
  - i) If no: Please explain what data SDG&E used to determine Line 1600 provides 10 percent of capacity while Line 3010 provides 90 percent of capacity.
  - ii) If yes: please explain how SDG&E determined the historical volumes transported through Line 1600 and Line 3010 if SDG&E “does not measure throughput by individual pipeline.”
- b) Please identify the witness responsible for this answer.

**RESPONSE 4:**

- a) No
  - i. No data was used to determine the 90/10 split between Line 1600 and Line 3010. The percent contributions of Line 3010 and Line 1600 relate to how much supply is delivered by both pipelines when the SDG&E system is operating at capacity, and not to historical volumes transported on either pipeline.
  - ii. N/A
- b) David M. Bisi

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**QUESTION 5:**

On page 41 of the amended Application, SDG&E states, “System throughput measured at Rainbow Metering Station showing the combined daily throughput for Line 1600 and Line 3010, for the 2011-2014 time period, is provided in Appendix E.”

On page 7 of the Direct Testimony of Daniel Bisi, lines 11-12, he states that “SDG&E daily average demand [is] 369 MMcfd.”

- a) Please provide the data in Appendix E as an Excel spreadsheet.
- b) Please confirm that as shown in Appendix E, the combined daily throughput for Lines 1600 and Line 3010 from 2011 to 2014 ranged from 0.00 MMcfd to 128.56 MMcfd.
- c) Please explain how SDG&E daily demand, which Mr. Bisi stated averages 369 MMcfd, is met if combined daily throughput on Lines 1600 and 3010 never exceeded 128.56 MMcfd.

**RESPONSE 5:**

- a. Please refer to Response 3b of this data request.
- b. That is incorrect.
- c. Appendix E only contained delivered volumes to Line 1600 as explained in Response 3a of this data request.

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**QUESTION 6:**

In Data Request Sierra Club-SDG&E-01, Sierra Club provided a copy of the Sempra Energy March 2014 Analyst Conference presentation for verification. Please provide the full slide presentation for the Sempra Energy 2015 Analyst Conference. If there was more than one Analyst Conference presentation in 2015, please provide a copy of each presentation.

**RESPONSE 6:**

Attached is the full slide presentation for the Sempra Energy 2015 Analyst Conference.



SRE Analyst  
Conference (03-26-1!



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**QUESTION 7:**

In response to Question 3 to Sierra Club-SDG&E-01, SDG&E replied that the combined daily throughput of Line 1600 and Line 3010 identified in Appendix E of the Amended Application had exceeded the maximum capacity of Line 3010.

- a. Please provide the date and amount of each such exceedance.

**RESPONSE 7:**

Since Appendix E of the Amended Application is the volume delivered into only Line 1600, as explained in Response 3a of this data request, the attached spreadsheet lists the dates and amount of each exceedance since 2011 on which the combined daily throughput of Line 3010 and Line 1600 exceeded the 530 MMcfd capacity of Line 3010 as provided in Response 2 to Sierra Club-SDG&E-01.



Sierra Club DR 02  
Q7.xlsx

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**QUESTION 8:**

In response to Question 7 to Sierra Club-SDG&E-01, SDG&E replied that there are two pipelines, Line 3600 and Line 3012, which extend from Santee to the Otay Mesa metering station. The map titled “SDG&E Gas System Map” on page 2-3 of the PEA does not identify Line 3012. Please provide a map showing all existing transmission lines in the SDG&E gas system.

**RESPONSE 8:**

Line 3012 is depicted on the map titled “SDG&E Gas System Map” on page 2-3 of the PEA; it is called “other transmission pipeline.” Attached is a map showing all existing backbone transmission lines in the SDG&E gas system.



SDG&E Gas  
Transmission Line Map

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**QUESTION 9:**

Page 40 of the March 21, 2016 Amendment to the CPCN Application provides a table titled “SDG&E Long-Term Demand Forecast” and identifies 1-in-35 Year and 1-in-10 Year Cold Day Demand through the 2035-2036 Operating Year. Following this table, page 41 states that “Annual average forecast data can be found in the 2014 California Gas Report.” Page 108 of the referenced Gas Report states that, for SDG&E, “non-EG gas demand is projected to remain virtually flat between 2013 and 2035.” On page 4, the Gas Report concludes that “California natural gas demand, including volumes not served by utility systems, is expected to decrease at a modest rate of 0.2 percent per year from 2014 to 2035.”

- A. Given that the cited Gas Report finds flat, if not slightly declining demand, please provide the supporting data and set forth the calculations that resulted in increased demand estimates for Core customers in the SDG&E Long-Term Demand Forecast on page 40.
- B. Please set forth the witness responsible for this answer.

**RESPONSE 9:**

- A. The 2014 California Gas Report (CGR) statements referenced by Sierra Club in Question 9 above are not directly comparable to the forecast contained in the table “SDG&E Long-Term Demand Forecast” on page 40 of SDG&E and SoCalGas’ March 21, 2016 Amended Application. SDG&E’s core demand is quite different than California’s state-wide demand for every type of customer and also SDG&E non-electric generation (EG) demand, which also includes all SDG&E non-core customers that are not EG. In addition, the table contains the forecasts for daily demand under cold daily conditions while the 2014 CGR-referenced statements pertain to forecasts for annual demand at average annual weather conditions.

In the following, please find an explanation of the methodology used in the “SDG&E Long-Term Demand Forecast” table.

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### **1-in-35 Cold Day Core Forecast Methodology**

In developing the 1-in-35 and 1-in-10 Cold Day Demands (also known as the 1-in-35 and 1-in-10 peak day forecasts), SDG&E and SoCalGas relied on the core peak day forecast it developed for their 2016 Triennial Cost Allocation Proceeding (TCAP).<sup>1</sup> In that proceeding, consistent with existing methodology, SDG&E/SoCalGas used the End Use Forecaster model<sup>2</sup> to develop annual forecasts assuming normal weather<sup>3</sup> for three core market segments (residential, core commercial, and core industrial) based on an average annual heating degree day (HDD) scenario of 1,303 HDDs.<sup>4</sup>

Demand for natural gas can be considered to be composed of two components: (i) a baseload component or non-weather-sensitive component that does not vary with the weather and (ii) a weather-sensitive component that does vary with the weather. The peak day gas demand forecast involves forecasting each of these two components separately and then adding up the components. This was done for each of the residential, core commercial, and core industrial market segments. The overall core peak day forecast was calculated as the sum of the peak day forecasts for these market segments plus the peak day forecast for the Natural Gas Vehicle (NGV) market segment.

#### **Residential**

For the residential market segment, the level of consumption resulting from one additional HDD (gas-consumption-sensitivity-to-HDD parameter) was quantified via regression analysis of historical data. Multiplying this parameter by 1,303 HDDs led to an estimate of annual weather-sensitive consumption under average weather conditions. This weather-sensitive consumption component was then subtracted from the End Use Forecaster-based total consumption (combined baseload and weather-sensitive consumption) forecast to arrive at the annual baseload forecast.

Having obtained the annual baseload forecast, SDG&E/SoCalGas then developed a monthly baseload forecast by applying the percentage of annual consumption attributable to each

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<sup>1</sup> The 2016 TCAP application, testimony and workpapers are available at: <https://www.socalgas.com/regulatory/A15-07-014.shtml>. All references to testimony and workpapers in the footnotes below are to SDG&E and SoCalGas' 2016 TCAP.

<sup>2</sup> For details on End Use Forecaster model, see the Workpapers to the Prepared Direct Testimony of Gregory Teplow at 156-172. See also the Workpapers to the Prepared Direct Testimony of Rose-Marie Payan at 50-119.

<sup>3</sup> For details about the forecasts, see the Workpapers to the Prepared Direct Testimony of Gregory Teplow at 161 for the residential market. See also the Workpapers to the Prepared Direct Testimony of Rose-Marie Payan at 91 and 116 for core commercial and core industrial sectors.

<sup>4</sup> An HDD is defined as the maximum of  $\{(65 - \text{Ambient Temperature}), 0\}$  to capture heating need when ambient temperature falls below 65 degree Fahrenheit. 1,303 HDDs represent the 20-year average of annual HDDs for the years 1995-2014. For details on weather design criteria underlying load forecast, see the Prepared Direct Testimony of Gregory Teplow at 6-7. See also the Workpapers to the Prepared Direct Testimony of Gregory Teplow at 89-93.

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month, derived using historical monthly consumption data. Because December is when peak daily demand typically occurs, the average daily baseload forecast for the month of December was used as the baseload component forecast for the 1-in-10 and 1-in-35 peak day scenarios. To derive the weather-sensitive consumption component forecasts for the 1-in-10 and 1-in-35 peak day scenarios, SDG&E/SoCalGas multiplied the gas-consumption-sensitivity-to-HDD parameter (discussed above) by the HDDs under each peak day scenario (20.7 and 22.3 for the 1-in-10 and 1-in-35 peak day scenarios, respectively).<sup>5</sup> These were added to the December baseload forecast to arrive at the residential peak day consumption forecast.

### **Core Commercial and Core Industrial Markets<sup>6</sup>**

For the core commercial and core industrial markets, the baseload consumptions were taken as the lowest monthly consumptions during the most recent complete year at the time of the forecast (year 2014). Multiplying these monthly baseload consumptions by 12 resulted in the annual baseload consumption estimates for year 2014. The ratio of year 2014 actual consumptions to the estimated year 2014 baseload consumptions were then applied to the average year forecasts calculated by the End Use Forecaster to determine the annual baseload forecasts. Dividing the annual baseload forecasts by 12 created the monthly baseload forecasts. Lastly, the peak day baseload forecasts were calculated as the average daily December baseload forecasts.

The gas-consumption-sensitivity-to-HDD parameters for the core commercial and core industrial markets were calculated as ratios of consumption to HDDs. These ratios were calculated as below:

$$HDD \text{ sensitivity parameter} = \frac{dec \text{ cons} - dec \text{ base cons}}{dec \text{ HDD}}$$

- dec cons: December, 2014 recorded consumption
- dec base cons: Baseload consumption for December
- dec HDD: 20 Yr Avg of December HDDs (1995-2014)

For the 1-in-10 and 1-in-35 peak day scenarios, SDG&E multiplied the gas-consumption-sensitivity-to-HDD parameters by the HDDs under each peak day scenario (20.7 and 22.3 for the 1-in-10 and 1-in-35 peak day scenarios, respectively). These were added to the peak day baseload forecasts to arrive at the core commercial and core industrial peak day consumption forecasts.

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<sup>5</sup> See the Prepared Direct Testimony of Gregory Teplow at 7-8. See also the Workpapers to the Prepared Direct Testimony of Gregory Teplow at 94-155.

<sup>6</sup> See the Prepared Direct Testimony of Rose-Marie Payan at 8-9. See also the Workpapers to the Prepared Direct Testimony of Rose-Marie Payan (SGD&E) at 52-119.

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**Natural Gas Vehicles**

The Natural Gas Vehicle (NGV) core market segment is not affected by heating degrees. No adjustment for heating degrees was made for this market segment. For the NGV core market segment, the average daily December forecast<sup>7</sup> was used as the peak day forecast in order to be consistent with the other core market segments.

For the entire core, the resulting 1-in-35 peak day forecasts through year 2020 in can be found in the Workpapers to the Prepared Direct Testimony of Bruce Wetzel, page 50, column J, rows 98-103. The relevant btu conversion factor of 1.0351 is on page 48, column G, row 3, of the same document. The correct conversion from MMcf as used in the “SDG&E Long-Term Demand Forecast” table to Mth as provided in the referenced work is:

$$MMcf = \frac{Mth}{10 * btu\ conversion\ factor}$$

- B. SDG&E and SoCalGas’ Demand Forecasting Group is responsible for this response.

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<sup>7</sup> See the Prepared Direct Testimony of Rose-Marie Payan at 8-9. See also the Workpapers to the Prepared Direct Testimony of Rose-Marie Payan (SDG&E) at 120-128.