

**EDF DATA REQUEST**  
**EDF-SCG-002**  
**SOCALGAS 2019 GRC – A.17-10-008**  
**SOCALGAS RESPONSE**  
**DATE RECEIVED: MARCH 27, 2017**  
**DATE RESPONDED: APRIL 10, 2018**

1. The following set of questions pertain to a portion of Rene F. Garcia’s revised testimony. Witness Rene F. Garcia indicates in RFG-8, lines 3-9, that gas meter readings are relayed automatically to Meter Data Management System (MDMS) and Headend (HE) back-office components, “eliminating the need for manual meter reading.”

- a. What percentage of customers have AMI-enabled meters that can relay this information automatically back to Southern California Gas Company?
- b. What percentage of daily demand is represented by the customers that have AMI-enabled meters?
- c. How often does the Meter Transmission Unit (MTU) communicate to a Data Collector Unit (DCU)?
- d. How often does a DCU communicate to the HE system?
  - (i) Does the DCU send the same data to the HE system that it receives from an MTU?
  - (ii) Is the data that the DCU sends to the HE system in the same format as that which it receives from an MTU?
- e. Does the data transmitted from the MTU include cumulative and hourly reads?
  - (i) If the answer to 1(e) is “yes,” what amount of time does the cumulative measurement cover? Relatedly, how many individual hourly reads are communicated with each measurement-related transmission?
  - (ii) If the answer to 1(e) is “no,” please describe the granularity of the MTU transmissions with respect to measurement-related transmissions.
- f. What are the data fields that are communicated between the MTU and the DCU?
  - (i) Please provide a data dictionary for each record type and within each such record, for each data field communicated between the MTU and the DCU.
    - i. What are the data fields that are communicated between the DCU and the HE system?
    - (i) Please provide a data dictionary for each record type and within each such record, each data field communicated between the DCU and the HE system.
- j. Is there a time stamp associated with the measurement-related data stored in the MTU?

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**Question 1 Continued:**

k. Is there a time stamp associated with each transmission of the measurement-related data stored in the MTU when the measurement-related data is relayed from the MTU to the DCU?

(i) If the answer to question 1(k) is “yes,” is there a separate time stamp associated with the actual transmission of the information-related data from the MTU to the DCU when such measurement information is subsequently sent from the DCU to the HE?

l. In SCGC-SEU Data Request-001, Southern California Gas Company states in its response to question 1.4.6 “it is not in scope to query AM interval data and other programs to produce a data set, the analysis has not been performed to determine if this can be done.” What is the basis for Southern California Gas Company’s assertion?

m. In SCGC-SEU Data Request-001, Southern California Gas Company states in its response to question 1.4.12 that it “expects to expand the integrated database to include other relevant data in the future.” What “other relevant data” does Southern California Gas Company anticipate including?

**SoCalGas Response 1:**

1.a. In areas where all DCU’s are installed and operational, over 97% of the MTU’s are transmitting reads back to SoCalGas.

SoCalGas objects to Questions 1b. through 1k. under Rule 10.1 of the Commission’s Rules of Practice and Procedure on the grounds that the information sought by this request is not relevant to the scope of the subject matter involved in the pending proceeding and the burden, expense and intrusiveness of this request outweighs the likelihood that the information sought will lead to the discovery of relevant and admissible evidence within the scope of the pending proceeding.

1.l. This clarification was provided in SoCalGas’ supplemental response to SCGC-SEU-001 Question 1.4.6 on March 22, 2018.

1.m. SoCalGas has not yet defined “other relevant data.”

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2. The following set of questions pertain to a portion of Rene F. Garcia’s testimony. On RFG-7, Witness Garcia has a pictorial representation of how an advanced meter operates. With respect to that “AMI Data Flow Overview,” please answer the following:

- a. Do the AMI-enabled meters reliably transmit usage data 4 times per day?
- b. If the answer to Question 2a below is “no,” please specify how many times per day the AMI-enabled meters transmit data.

**SoCalGas Response 2:**

- 2.a. In areas where all DCU’s are installed and operational, over 97% of the MTU’s are transmitting 4 times per day.
- 2.b. See response 2.a.

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3. The following set of questions pertain to a portion of Rene F. Garcia’s testimony. On RFG-8, Witness Garcia states that “while gas usage is still measured by the analog meter as it was prior to adding the AMI technology, the MTU is applied (retrofitted) to the meter to securely transmit hourly meter readings wirelessly through SoCalGas’ data communications network.” With respect to that statement, please answer the following:

a. Is it true that SoCal’s AMI-enabled meters measure the volume of natural gas passing through the meter?

(i) Is it true that SoCal’s AMI-enabled meters record for later transmission the volume per hour of gas passing through the meter?

(ii) Please provide the unit of volume measure of gas that the AMI-enabled meters record for transmission.

b. Do the AMI-enabled meters record the volume of gas measured by the meter during the previous hour at the top of each hour?

(i) If not, please provide the schedule of recording interval employed. That is, please provide the minute of the hour the meter records consumption, as well as how those minutes differ over the population of AMI-enabled meters.

**SoCalGas Response 3:**

SoCalGas objects to this request under Rule 10.1 of the Commission’s Rules of Practice and Procedure on the grounds that the information sought by this request is not relevant to the scope of the subject matter involved in the pending proceeding and the burden, expense and intrusiveness of this request outweighs the likelihood that the information sought will lead to the discovery of relevant and admissible evidence within the scope of the pending proceeding.

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4. The following set of questions pertain to a portion of Rene F. Garcia’s testimony. Witness Rene F. Garcia states in RFG-20, lines 6-8 that “the HE software collects and processes meter data and pressure alarms and other data needed to help AMI support groups operate and manage the AMI network.”

- a. Please provide the organizational chart for the complete list of organizational units within Southern California Gas Company that utilize data provided to the HE.
- b. Please provide the organizational chart for the complete list of organizational units within Southern California Gas Company that utilize data produced by the HE.
- c. Please identify the output of the HE system that each organizational unit within Southern California Gas Company utilizes.
- d. Please provide a data dictionary for each data field in the HE system output provided to each organizational unit within Southern California Gas Company, broken down by organizational unit.

**SoCalGas Response 4:**

SoCalGas objects to this request under Rule 10.1 of the Commission’s Rules of Practice and Procedure on the grounds that the information sought by this request is not relevant to the scope of the subject matter involved in the pending proceeding and the burden, expense and intrusiveness of this request outweighs the likelihood that the information sought will lead to the discovery of relevant and admissible evidence within the scope of the pending proceeding.

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5. The following set of questions pertain to a portion of Rene F. Garcia’s testimony. Witness Rene F. Garcia states in RFG-8 that the “MTU is a communications device that automatically and securely transmits hourly gas meter readings to our DCUs, which in turn transmit the gas meter readings to our back-office systems (e.g. MDMS and HE) and billing department” and in RFG-20, lines 8-9 that “the MDMS software is the system of record for AMI meter reads, gas usage, and MTU tamper alerts.”

- a. Please provide a data dictionary for each record type and within each record type, for each data field stored in the MDMS.
- b. Please provide a data dictionary for each record type and within each record type, for each data field transmitted by the MDMS to the billing system of the billing department.
- c. Please provide a data dictionary for the data fields tracked by the MDMS.
- d. Please provide the organizational chart for the complete list of organizational units within Southern California Gas Company that utilize data produced by the MDMS.
- e. Please identify the output of the MDMS system that each organizational unit within Southern California Gas Company utilizes, broken down by organizational unit. Please also provide a data dictionary for each output that each organizational unit within Southern California Gas Company utilizes, broken down by organizational unit.
- f. Is the Integrated Customer Data and Analytics (ICDA) the same thing as the “data warehouse”?
  - (i) If not, please provide a description of the ICDA and the data warehouse and how they differ.

**SoCalGas Response 5:**

SoCalGas objects to Questions 5.a. through 5.e. under Rule 10.1 of the Commission’s Rules of Practice and Procedure on the grounds that the information sought by this request is not relevant to the scope of the subject matter involved in the pending proceeding and the burden, expense and intrusiveness of this request outweighs the likelihood that the information sought will lead to the discovery of relevant and admissible evidence within the scope of the pending proceeding.

5.f. No, “Data Warehouse” is an industry term that refers to a central repository of data from disparate transactional systems that can be used for analysis and reporting. ICDA is a project to enhance the Integrated Customer Data Warehouse, which is a subset of Southern California Gas Company’s “data warehouse.”

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6. The following set of questions pertain to the testimony of Stacey Lee, who describes the activities of the Gas Demand Forecasting and Economic Analysis department's activities with respect to demand forecasting on page SL-31.

a. If the Southern California Gas Company group or organizational unit referred to as the Regulatory Demand Forecasting Group is not one of the organizational units within Southern California Gas Company that receives data from HE, MDMS or will use Integrated Customer Data and Analytics (ICDA), please explain in detail:

- (i) The data they employ in their forecasting,
- (ii) Their method(s) of creating forecasts,
- (iii) The tools they employ in making forecasts; and,
- (iv) Whether any of the data contained in their forecasts is inserted into any data bases of the HE, MDMS or ICDA.

**SoCalGas Response 6:**

SoCalGas objects to this request under Rule 10.1 of the Commission's Rules of Practice and Procedure on the grounds that the information sought by this request is not relevant to the subject matter involved in the proceeding or reasonably calculated to lead to the discovery of admissible evidence for this proceeding, and outside the scope of the cited testimony. Subject to and without waiving these objections, SoCalGas responds as follows: SoCalGas' Demand Forecasting Group does not directly receive data from HE and MDMS but has access to daily Advanced Meter Infrastructure (AMI) data. The Demand Forecasting Group will use ICDA subject to a determination in A.17-10-002.

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7. The following question pertains to a portion of Christopher Olmsted’s testimony. Witness Christopher Olmsted refers in Workpaper SCG-26-CWP at page 193, referring to the ICDA database that “will deliver an integrated data store that enables the future vision of Southern California Gas Company’s customer analytics.”

- a. Please provide a data dictionary for each of the fields in the data base(s) related to the following: meters, consumption, climate zones, interval usage data, time, date, actual temperature, forecasted temperature, other actual and forecasted weather attributes stored, ENVOY-scheduled natural gas receipts, ENVOY-scheduled natural gas deliveries, and, with respect to each; the location, quantity, and time period, as applicable.

**SoCalGas Response 7:**

SoCalGas objects to this request under Rule 10.1 of the Commission’s Rules of Practice and Procedure on the grounds that the information sought by this request is not relevant to the subject matter involved in the proceeding or reasonably calculated to lead to the discovery of admissible evidence for this proceeding, and outside the scope of the cited testimony.

SoCalGas further objects to this request on the grounds that the burden, expense and intrusiveness of this request outweighs the likelihood that the information sought will lead to the discovery of relevant and admissible evidence within the scope of the pending proceeding.



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8. The following question pertains to a portion of Christopher Olmsted’s testimony. Witness Christopher Olmsted states in Workpaper SCG-26-CWP at page 256 that software changes to the ENVOY application will enable providing “more timely data to customers.”

- a. Does this data identify the start and end time of the Measurement Day? If so, please identify the start and end time of the Measurement Day.
- b. If the Measurement Day is different from the North American Energy Standards Board (NAESB) Gas Day, please explain why that is the case.
- c. In SCGC-SEU Data Request-001, Southern California Gas Company states in their response to Questions 1.5.1-1.5.8 that “the proposed ENVOY enhancements are addressing the foundational architecture only...[and] the proposed enhancements will not include any of the attributes listed in this question,” including the ability of customers to trade their daily gas imbalances with other customers. Please explain why this attribute is not part of what Southern California Gas Company considers to be “foundational architecture.”
  - (i) Please provide a listing of the data elements transmitted from the AMI-enabled meters that are considered to be part of the “foundational architecture.”
  - (ii) Please provide a listing of the data elements transmitted from the AMI-enabled meters that are not part of the “foundational architecture.”

**SoCalGas Response 8:**

- a. Data from the new application will be the same data customers currently receive. The measurement day for SoCalGas is 12am – 12am pacific standard time.
- b. SoCalGas’ Measurement Collection System was set up in the early 1990’s to collect the daily measurement quantities after 12 AM Pacific Standard Time for posting on the Envoy system for use by noncore customers and their suppliers. It has and continues to be operated in this manner since its inception.
- c. SoCalGas objects to this request pursuant to Rule 10.1 of the Commission’s Rules of Practice and Procedure to the extent it seeks information that is neither relevant to the subject matter involved in this proceeding nor is reasonably calculated to lead to the discovery of admissible evidence for this proceeding. Subject to and without waiving this objection, SoCalGas responds as follows:

Reference SoCalGas Exh SCG-13, Page DKZ-22, Lines 18 – 22 and Page DKZ-25, Line 3.

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**SoCalGas Response 8 Continued:**

- i. There are no data elements being transmitted from the AMI enabled meters as part of the “foundational architecture”
- ii. Not Applicable

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9. The following question pertains to a portion of Andrew S. Cheung’s revised testimony. At ASC-21, the witness states that an increase in resources will be needed to hire a “Data Analyst responsible for proactively leveraging SoCalGas’ customer data, including SoCalGas’ Integrated Customer Data Analytics (ICDA), by performing advanced analytics and predictive data modeling to provide greater granularity on how best to address customer needs.”

- a. With respect to the ICDA, will data residing in the ICDA be available for use by the Gas Acquisition department?
- b. Assuming the ICDA and data warehouse are not the same, with respect to the data warehouse, will data residing in the data warehouse be available for use by the Gas Acquisition department?

**SoCalGas Response 9:**

- a. No, Gas Acquisition does not have access to the ICDA.
- b. No, Gas Acquisition does not have access to the Data Warehouse.