SAN DIEGO GAS & ELECTRIC COMPANY
SOUTHERN CALIFORNIA GAS COMPANY

PIPELINE SAFETY & RELIABILITY PROJECT (PSRP)

(A.15-09-013)

(4th DATA REQUEST FROM SOUTHERN CALIFORNIA GENERATION COALITION)

Date Requested: July 27, 2016
Date Responded: August 10, 2016

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 Southern California Generation Coalition (SCGC) from SCGC's own files, from documents or information in SCGC's possession, or from documents or information that SDG&E and SoCalGas previously released to the public or produced to SCGC. 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 SCGC 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 SCGC'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 4.1:

Please describe the percentage of SDG&E's electricity sales that the 2016 California Gas Report ("CGR") assumes will be provided by electricity generated by renewable resources for the years 2020, 2025, and 2030.

RESPONSE 4.1:

The 2016 CGR assumes that, on an annual average basis, all utilities in California will achieve 33% Renewables Portfolio Standard (RPS) by 2020, 42% RPS by 2025, and 50% RPS by 2030. Note that the 2016 CGR simulation assumptions and results were developed after the application (A.15-09-013) for the Pipeline Safety & Reliability Project (PSRP or Proposed Project) was filed.

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QUESTION 4.2:

In the Applicants' Amendment to Application pages 4 and 10-11, the Applicants explain that in 2011 they proactively reduced the MAOP on Line 1600 from the "historic MAOP of Line 1600" from 800 psig by 20% to the current MAOP of 640 psig.

4.2.1. Please identify the records on the basis of which the Applicants established the "historic MAOP of Line 1600" as being 800 psig.

4.2.2. Please identify the regulation which permitted those records to be used to establish the "historic MAOP" of "800 psig."

RESPONSE 4.2:

4.2.1. The maximum allowable operating pressure (MAOP) of Line 1600 was established using SDG&E's *Initial Report on Pipelines and Mains Operating at or Above 20 Per Cent of the Pipeline Material's Specified Minimum Yield Strength*, submitted to the Commission in 1968, as required by Commission Decision 73223, which adopted General Order (G.O.) 112-B.

4.2.2. The MAOP was established using 49 CFR § 192.619(c), not through a specific regulation that allowed for certain documents.

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QUESTION 4.3:

In the Amendment to Application, pages 10-11, the Applicants explain that reducing the MAOP in 2011 to 640 psig that resulted in a 39 percent Specified Minimum Yield of Strength ("SMYS") and propose lowering the pressure further so that Line 1600 will operate below 20 percent of SMYS. Furthermore, the Applicants' witness Sera says that operating the pipeline at "just under 20% of SMYS" will result in the pipeline operating at 320 psig. Sera Direct at page 25. Mr. Sera says that 20 percent of SMYS is the threshold that is recognized as the lower bound for lower stress transmission pipeline so that a reduction of pressure to 320 psig, just below 20 percent of SMYS, would result in Line 1600 being "de-rated" to being a distribution pipeline.

4.3.1. If Line 1600 were de-rated to being a distribution pipeline operating at 320 psig, 20 percent SMYS, what would be the capacity of the line to deliver gas south from the Rainbow Metering Station assuming full availability of compression at the Moreno Compressor Station and assuming that Line 1600 is operating with Line 3010 being in service.

4.3.2. If Line 1600 were de-rated to being a distribution pipeline operating at 320 psig, 20 percent SMYS, what would be the capacity of the line to deliver gas south from the Rainbow Metering Station assuming full availability of compression at the Moreno Compressor Station and assuming that that Line 1600 is operated without Line 3010 in service.

4.3.3. If Line 1600 were de-rated to being a distribution pipeline operating at 320 psig, 20 percent SMYS, what would be the capacity of the line to deliver gas south from the Rainbow Metering Station assuming compression is not available at the Moreno Compressor Station and assuming that Line 1600 is operating with Line 3010 being in service.

4.3.4. If Line 1600 were de-rated to being a distribution pipeline operating at 320 psig, 20 percent SMYS, what would be the capacity of the line to deliver gas south from the Rainbow Metering Station assuming compression is not available at the Moreno Compressor Station and assuming that Line 1600 is operating without Line 3010 in service.

RESPONSE 4.3:

4.3.1 As proposed in this Application, at 320 psig, Line 1600 would serve only as a distribution supply line and as such, would not contribute to the capacity of the SDG&E gas transmission system.

4.3.2 See response to 4.3.1 above.

4.3.3 See response to 4.3.1 above.

4.3.4 See response to 4.3.1 above.

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QUESTION 4.4:

In the Amendment to Application, Appendix E, Volumes Statement, the Applicants present volumes transported on Line 1600 from May 1, 2011, to December 31, 2014. Are the volumes presented in Appendix E the volumes that are metered as delivered into Line 1600 at Rainbow Metering Station?

RESPONSE 4.4:

Yes.

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QUESTION 4.5:

In the Amendment to Application, Appendix E, Volumes Statement, the volumes range from a high of 128.56 MMcf/d on January 14, 2011 to zero on various occasions. Please explain the reason(s) for the variation in volumes transported on Line 1600 from May 1, 2011 through December 31, 2014.

RESPONSE 4.5:

Volumes transported on Line 1600 will vary depending on the location and level of customer demand on the SDG&E system. Additionally, segments of Line 1600 were out of service for extended periods due to pipeline maintenance activities during this time period. During 2013 and 2014, Line 1600 was shut in or operating at reduced pressure for extended periods of time for pipeline maintenance purposes. The increase in average volume on Line 1600, and corresponding decrease on Line 3010, reflects Line 1600 returning to normal operating conditions.

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QUESTION 4.6:

In the Applicants' September 30, 2015, Application, page 3, the Applicants state that Line 3010 in combination with Line 1600 have a total capacity of 630 MMcf/d in winter and 590 MMcf/d in summer. Further, the Applicants say that Line 1600 provides approximately 10 percent of the capacity and Line 3010 provides approximately 90 percent.

4.6.1 Please explain the operating condition under which Line 1600 would provide approximately 10 percent or 63 MMcf/d of the combined daily capacity of Lines 3010 and 1600.

4.6.2 Please describe the operating condition under which Line 1600 would transport 128.56 MMcf/d as occurred on January 14, 2013, as stated in Amendment to Application, Amendment E.

4.6.3 Please explain the operating condition under which Line 1600 would transport zero MMcf/d as occurred on various dates as shown in Appendix E.

RESPONSE 4.6:

Please refer to Response 4.5 of this data request.

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QUESTION 4.7:

What is the maximum daily capacity of Line 1600 when operated at each of the following MAOPs with the Moreno Compressor Station and Line 3010 in operation: 800 psig MAOP, 640 psig MAOP, 512 psig MAOP, and 320 psig MAOP?

RESPONSE 4.7:

MAOP	Max Daily Capacity
800 psig	110 MMcfd
640 psig	100 MMcfd
512 psig	65 MMcfd
320 psig	0 MMcfd*

* As noted in response 4.3 above, at 320 psig Line 1600 would serve only as a distribution supply line and as such, would not contribute to the capacity of the SDG&E gas transmission system.

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QUESTION 4.8:

Please provide the maximum daily capacities of Line 1600 with the Moreno Compressor Station in operation but with Line 3010 out of operation for MAOPs identified in question 4.5 above.

RESPONSE 4.8:

MAOP	Max Daily Capacity
800 psig	160 MMcfd
640 psig	150 MMcfd
512 psig	110 MMcfd
320 psig	0 MMcfd*

* As noted in response 4.3 above, at 320 psig Line 1600 would serve only as a distribution supply line and as such, would not contribute to the capacity of the SDG&E gas transmission system.

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QUESTION 4.9:

If Line 1600 is operated at 128.56 MMcf/d as occurred on January 14, 2013, as shown in the Amendment to Application, Appendix E, Volumes Statement, what volume would be delivered through Line 3010, assuming the Moreno Compressor Station and Line 3010 are available for service?

RESPONSE 4.9:

The SDG&E system experienced a sendout of 674 MMcfd on January 14, 2013. This sendout was served with 530 MMcfd and 128 MMcfd of supply delivered into Lines 3010 and 1600, respectively, at Rainbow Meter Station. In addition, 1 MMcfd was supplied by Line 1026 and the system was drafted by 15 MMcf. No supply was received at Otay Mesa. Please refer to the attachment for the volume delivered to Line 3010 at Rainbow Meter Station on January 14, 2013.

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QUESTION 4.10:

Please provide the Applicants' Gas Standards identified in the Amendment to Application at 17.

RESPONSE 4.10:

SDG&E and SoCalGas object to this question on the bases that the term "Applicants' Gas Standards" is vague, and ambiguous and subject to speculation in interpretation. Further, depending upon one's interpretation of the term, the investigation required by the question is overly burdensome, overly broad and unnecessarily time-consuming, and not reasonably calculated to lead to the discovery of relevant evidence. Subject to and without waiving these objections, SDG&E and SoCalGas respond as follows.

Applicants' Gas Standards are extremely voluminous. SCGC is welcome to schedule an appointment with Applicants to review their Gas Standards in person or identify a specific standard requested as identified in Table 1 of Deanna Haines' Direct Testimony.

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QUESTION 4.11:

In Response 9 to ORA Data Request 6, Question 9, the Applicants say that they pressure test "newly constructed segments" such as "cylindrical replacements" and that on Line 1600 the pressure tests are conducted in accordance with applicable code requirements.

4.11.1 Please describe how SDG&E demarcates segments, e.g., milepost, engineering station, etc. and define the demarcation that SDG&E uses.
4.11.2 How many segments are there on Line 1600?
4.11.3 Please identify by the demarcation unit utilized by SDG&E (milepost, engineering station, etc.) each of the newly constructed segments referenced in Response 9 to ORA Data Request 6, Question 9.
4.11.4 Please identify the length of each of the newly constructed segments identified in Response 9 to ORA Data Request 6, Question 9.
4.11.5 Please provide the direct cost of constructing each of the newly constructed segments referenced in the Response 9 to ORA Data Request 6, Question 9.
4.11.6 Please identify the direct cost of the pressure test of each of the newly constructed segments referenced in Response 9 to ORA Data Request 6, Question 9.

RESPONSE 4.11:

4.11.1 Engineering stationing.

4.11.2 SDG&E and SoCalGas do not categorize pipelines by segments since a segment count is arbitrary and dependent parameters that can change. Using diameter as an example, Line 1600 would then be composed as having 3 segments. It is more appropriate to discuss the pipeline in terms of projects.

4.11.3

PIPELINE NAME	BEG. ENG. STATION	END ENG. STATION	Mileage	Cost
1600	242,307	243,305	0.19	1,101,005
1600	244,020	245,231	0.23	268,936

4.11.4 See "mileage" column of response 4.11.3 above.

4.11.5 See "cost" column of response 4.11.3 above.

4.11.6 Specific costs associated with pressure testing are not tracked.

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QUESTION 4.12:

In response 10 to ORA Data Request 7, Question 7, the Applicants say that retrofitting Line 1600 was performed in three separate phases to accommodate the passage of ILI tools.

4.12.1 What physical changes in Line 1600 were required to "retrofit" Line 1600 to accommodate ILI inspections?
4.12.2 What was the location of the each of the physical changes?

4.12.3 Were any segments of Line 1600 replaced to accommodate ILI inspections?

4.12.3.1 If so, please identify the segments that were replaced to accommodate ILI and provide the milepost numbers associated with those segments.
4.12.3.2 If segments were replaced to accommodate ILI, were these replacements made in addition to the replacements of segments identified in the Applicants' Response 9 to ORA Data Request 6, Question 9?

RESPONSE 4.12:

4.12.1 In order to retrofit Line 1600 the following types of work were performed to accommodate inline inspections:
- Installations of launchers
- Installation of barred tees and associated facilities
- Installation of valves
- Removal of valves
- Installation of temporary and permanent receivers
- Removal of spherical tees

4.12.2 See the attached file for the locations of the physical changes.

4.12.3 Yes.

4.12.3.1 Response 4.12.2 above identifies the work performed to accommodate inline inspection. In each of the denoted locations, a small amount of pipe was replaced as part of a tie-in of old pipe with new pipe or when an existing feature is replaced with a new feature.

4.12.3.2 Replacements denoted in Response 9 to ORA Data Request 6 were performed for a variety of reasons and would not be limited to work related to retrofitting for inline inspection.

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QUESTION 4.13:

In the Applicants' Response 9 to ORA Data Request 7, Question 9, the Applicants provided a table showing the "nominal" and "maximum" capacity in MMcf/d for pipelines 1027, 1028, and 6900.

4.13.1 Please define "nominal" capacity.
4.13.2 Please define "maximum" capacity.
4.13.3 Please identify the basis utilized by the Applicants to determine the "maximum" capacity of pipelines 1027, 1028, and 6900.
4.13.4 Please identify the operating conditions under which the "maximum" capacity would be obtained.
4.13.5 Are the maximum capacities that you identified for Lines 1027, 1028, and 6900 the same as the MAOP for each of those pipelines?
4.13.6 If the maximum capacities are different from the MAOP for each of the pipelines, please explain why they are different.
4.13.7 Is the sum of the individual maximum capacities of the three pipelines the same as the maximum capacity of the complete looped system of pipelines 1027, 1028, and 6900?
4.13.8 If these two values are different, please explain why they are different.

RESPONSE 4.13:

4.13.1 In this context, nominal capacity refers to the estimated capacity of the pipeline based upon typical operating pressures.

4.13.2 Maximum capacity refers to the estimated capacity of the pipeline based upon the MAOP and Minimum Operating Pressure (MinOP).

4.13.3 Please refer to Response 4.13.2.

4.13.4 Please refer to Response 4.13.2.

4.13.5 Please refer to Response 4.13.2.

4.13.6 Please refer to Response 4.13.2.

4.13.7 Yes.

4.13.8 N/A

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QUESTION 4.14:

In ORA Data Request 10, Question 1, the Applicants were asked how the "several large noncore customers and single-sourced distribution systems [that] are directly served by Line 1600" will receive gas if Line 1600 is de-rated to being a distribution pipeline. In response, the Applicants said that service to the large noncore customers and single-sourced distribution systems directly served by Line 1600 would continue to be served by Line 1600 or would be moved to a higher pressure pipeline if that is feasible.

4.14.1 Please define "single-sourced distribution systems" as the term is used in Response 1 to ORA Data Request 10, Question 1.
4.14.2 Please identify the "single-sourced distribution systems" that are served off of Line 1600 indicating both the distribution system name and the milepost number or other demarcation unit used by SDG&E for the point of interconnection between Line 1600 and the distribution system.
4.14.3 How would customers and single-sourced distribution systems directly served by Line 1600 be moved to a higher pressure pipeline?
4.14.4 Please identify the higher pressure pipeline or pipelines to which the customers or single-sourced distribution systems would be moved.

RESPONSE 4.14:

4.14.1 In response to ORA Data Request 10, Question 1, a "single-sourced distribution system" is defined as a distribution system solely supplied by Line 1600. These systems may have one or more interconnections to Line 1600 but are not connected to any other gas transmission pipelines / supplies.

4.14.2 If Line 1600 is de-rated to a distribution line with an MAOP of 320 psig, then in the context of this Application the primarily affected single-sourced distributions systems consist of distribution supply lines currently operating at an MAOP greater than 320 psig, these systems are listed below.

Single-Sourced Distributon System (Pressure System ID)	Interconnected Supply Line ID	Approximate Mile Post
1037	49-116	25.63
1117	49-119	33.08
1044	49-120	33.87
1044	49-120-A	33.87
1044	49-121	35.03
1044	49-122	37.35
1044	49-122-A	37.35
1044	49-31-B	40.82
1118	49-123	38.33
1110	49-124	41.44
1087	49-367	44.12

4.14.3 If Line 1600 is de-rated to a distribution line with an MAOP of 320 psig, large non-core customers and single-sourced distribution systems listed in Response 4.14.2 above may or may not be moved to a higher pressure pipeline depending on the transmission system configuration at such time and downstream customer / system gas demand. Those not moved would continue to be served by Line 1600 at a pressure up to 320 psig. If feasible and necessary, customers and single sourced distribution systems would be moved to a higher pressure pipeline with a new pipeline interconnection.

4.14.4 The proposed new Line 3602.

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QUESTION 4.15:

In the Applicants' July 1, 2016 Response to the ORA Motion to Dismiss Application 15-09-013, the Applicants state at page 15 that when the Applicants updated their description of the No Project Alternative in the March, 2016, PEA Supplement, the Applicants determined that the scope of the No Project Alternative includes replacing only 45 of the 49.7 miles of Line 1600 because the southern-most segment may not need to be hydrostatically pressure tested if the northern 45 miles are replaced. Further, the Applicants said replacing only 45 miles would reduce the number of segments that would need to be pressure tested from 24 to 19.

4.15.1 Please explain why the southern-most 4.7 miles of Line 1600 would not need to be hydrostatically pressure tested if the northern 45 miles are replaced.
4.15.2 Please explain why the 4.7 mile southern-most segment would reduce the number of segments that are needed to be pressure tested from 24 to 19.
4.15.3 Please explain how much of the 49.7 miles of Line 1600 are north of Line 2010 and how much of the 49.7 miles of Line 1600 are south of Line 2010.
4.15.4 Is there an operational feature of the interconnection between Line 1600 and Line 2010 that results in the southern-most 4.7 miles of Line 1600 not requiring pressure testing if the 45 northern most miles are replaced?
4.15.5 If the northern 45 miles were pressure tested but not replaced, would the southern most segment of 4.7 miles still not need to be hydrostatically pressure tested? Please explain your answer.

RESPONSE 4.15:

4.15.1 The Proposed Project's scope includes replacing the northern 45 miles of Line 1600. The southern 4.7 miles of Line 1600 are outside the scope of this Application. Whether the southern 4.7 miles of Line 1600 are hydrotested, replaced or de-rated to distribution service will be determined separate and apart of this Application. It is possible that if the Proposed Project is constructed and the northern 45 miles of Line 1600 are derated to 320 psig and repurposed as a distribution pipeline, that the southern 4.7 miles may also be derated to 320 psig and operated as a distribution pipeline. In this hypothetical scenario, the southern segment would not need to be hydrotested.

4.15.2 Given that the Proposed Project's scope is limited to the northern 45 miles of Line 1600, for the purposes of this Application, it is only necessary to consider the number of hydrotest segments for this reach of pipeline. The number of segment for this reach of pipeline is estimated at 19. The remaining segments are associated with the out of scope southern 4.7 miles.

4.15.3 Approximately 45 miles of Line 1600 are north of Line 2010 and approximately 4.7 miles of Line 1600 are south of Line 2010.

4.15.4 No.

4.15.5 Pursuant California Public Utilities Code Section 958 and D.11-06-017, the southern 4.7 miles of Line 1600 are subject to being hydrotested, replaced or de-rated and repurposed as a distribution pipeline.

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QUESTION 4.16:

Of the 49.7 mile length of Line 1600:

4.16.1 How many miles of Line 1600 are in Class 1 areas?
4.16.2 How many miles of Line 1600 are in Class 2 areas?
4.16.3 How many miles of Line 1600 are in Class 3 areas?
4.16.4 How many miles of Line 1600 are in Class 4 areas?
4.16.5 For the miles that are in Class 1 or 2 areas, how many miles are in High Consequence Areas?

RESPONSE 4.16:

Listed below are the results of the HCA mileage as of August 2016. Total length will change over time based upon database update reflecting reroutes and other construction related activities.

4.16.1 9.9 miles

4.16.2 7.7 miles

4.16.3 32.2 miles

4.16.4 0 miles

4.16.5 .16 miles

SAN DIEGO GAS & ELECTRIC COMPANY
SOUTHERN CALIFORNIA GAS COMPANY

PIPELINE SAFETY & RELIABILITY PROJECT (PSRP)

(A.15-09-013)

(4th DATA REQUEST FROM SOUTHERN CALIFORNIA GENERATION COALITION)

Date Requested: July 27, 2016
Date Responded: August 10, 2016

QUESTION 4.17:

Witness Navin states in his Direct Testimony at page 2, Table 1, that the direct capital cost of derating Line 1600 would be $15.1 million.

4.17.1 Please identify the specific facilities that would be installed in order to de-rate the Line 1600 that would result in a direct capital cost of $15.1 million.
4.17.2 Please break down the direct capital cost among the facilities listed in response to the previous answer.

RESPONSE 4.17:

4.17.1 Please refer to the PEA Supplement Chapter 2 for a detailed description of the facilities that would be installed in order to de-rate Line 1600, including discussion of Line 49-31C and Mira Mesa Extension.

Note: the new facilities total approximately $12.8 million of the $15.1 million direct capital cost. *See* Prepared Direct Testimony of Neil Navin at page 21, footnote 16.

4.17.2 The direct capital costs for the specific facilities that would be installed in order to de-rate Line 1600 are as follows:

Summary by New Facility	
	Total ($Million)
Line 49-31C	$5.9
Mira Mesa Extension	$6.8
Total	**$12.8**

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QUESTION 4.18:

In witness Navin's Direct Testimony, page 22, Table 5, Mr. Navin breaks down the $15.1 million for derating Line 1600 into six categories. Please identify which of the six cost categories would be capitalized and which, if any, would be considered O&M expense.

RESPONSE 4.18:

All six cost categories are capitalized.

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QUESTION 4.19:

In their Response 5 to ORA Data Request 7, Question 5, the Applicants say that there have been 12 curtailment events on the SDG&E system "since January 2011." ORA had asked for the Applicants to identify, by year, starting with the installation of Line 3010, the number of times the Applicants were not able to reliably provide natural gas service.

4.19.1 Did the answer that there have been 12 curtailment events on the SDG&E system since 2011 mean that there were no curtailment events before January, 2011?

4.19.2 If there were curtailments prior to January, 2011, but after the installation of Line 3010, please identify for each curtailment the date, the duration, the trigger, and the affected utility as shown for the time period after 2011 in your Response 5 to ORA Data Request 5, Question 5.

RESPONSE 4.19:

4.19.1 No.

4.19.2 Prior to January 2011 there were 14 days of curtailment in 2000-2001 that are listed in the table below. Start and end times and duration data is not available. All of these curtailments were attributed to insufficient pipeline capacity on the SDG&E system. Information on curtailments prior to 2000 is not readily available on a consistent basis.

Date	Trigger
11/13/2000	Insufficient Capacity
11/14/2000	Insufficient Capacity
11/15/2000	Insufficient Capacity
11/16/2000	Insufficient Capacity
11/17/2000	Insufficient Capacity
1/11/2001	Insufficient Capacity
1/12/2001	Insufficient Capacity
1/16/2001	Insufficient Capacity
1/17/2001	Insufficient Capacity
1/18/2001	Insufficient Capacity
1/19/2001	Insufficient Capacity
1/26/2001	Insufficient Capacity
1/27/2001	Insufficient Capacity

2/13/2001	Insufficient Capacity
2/14/2001	Insufficient Capacity
2/15/2001	Insufficient Capacity
2/16/2001	Insufficient Capacity

In addition, there have been two events related to system outages in October 1985 and March 1993:

- In October 1985, Line 3010 was hit by a contractor during the installation of a liquid fuel line. The pressure of Line 3010 was reduced to enable repairs. As a result, gas flow to the electric generation (EG) plants was curtailed.
- In March 1993, several severe rainstorms caused settlement in part of the Moreno Compressor Station. Sections of the plant were out of service for several months, which resulted in EG plant curtailments.

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QUESTION 4.20:

The Applicants' witness Bisi states in his Direct Testimony at 3 that there is a "much smaller" compressor station at Rainbow Station to boost pressure into Line 1600, as necessary.

4.20.1 Is it correct to say that the "smaller" compressor station only provides pressure for Line 1600 and not Line 3010?
4.20.2 Please provide the maximum capacity of Line 1600 with the "smaller" compressor in operation, assuming that Line 3010 and the Moreno Compressor Station are in service.
4.20.3 Please provide the maximum capacity of Line 1600 with the "smaller" compressor in operation, assuming that Line 3010 and the Moreno Compressor Station are out service.
4.20.4 Please provide the maximum capacity of Line 1600 with the "smaller" compressor out of service, assuming that Line 3010 and the Moreno Compressor Station are in service.
4.20.5 Please provide the maximum capacity of Line 1600 with the "smaller" compressor out of service, assuming that Line 3010 and the Moreno Compressor Station are out of service.

RESPONSE 4.20:

4.20.1 Yes, the Rainbow Compressor Station discharges only into Line 1600.

4.20.2 The capacity of Line 1600 is unchanged from previous stated figures. To clarify, the Rainbow Compressor Station has not been used for operational purposes since 2007 and only serves to replenish SDG&E linepack on Line 1600 during and after periods of high send-out. The Rainbow Compressor Station does not and has not ever substituted for the Moreno Compressor Station and is not needed or used for throughput.

4.20.3 Please refer to Response 4.20.2.

4.20.4 Please refer to Response 4.20.2.

4.20.5 Please refer to Response 4.20.2.

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QUESTION 4.21:

If Line 1600 were de-rated, would the smaller compressor station of Line 1600 at Rainbow Station be taken out of service?

4.21.1 If the Applicants' answer to the previous question is "yes," what would be the cost of taking the smaller compressor station out of service?
4.21.2 Could the smaller compressor station at Rainbow Station alternatively be used to boost pressure on Line 3010?
4.21.3 If the answer to the previous question is "yes,"

4.21.3.1 Please identify what the higher pressure would be on Line 3010.
4.21.3.2 Please identify how much increased flow on Line 3010 would be expected.
4.21.3.4 Please identify how much it would cost to enable the compressor at Rainbow to boost pressure on Line 3010.

RESPONSE 4.21:

The Rainbow Compressor Station has not been used for operational purposes to transport gas since 2007. Please refer to response to 4.20 above.

4.21.1 N/A

4.21.2 No.

4.21.3 N/A

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QUESTION 4.22:

In witness Bisi's Direct Testimony at 8, Mr. Bisi says that construction of a new 30-inch diameter pipeline would not meet the demand forecast for the Commission mandated 1-in-10 cold day design standard under either a Line 3010 outage or a Moreno Compressor Station outage.

4.22.1 Please provide the capacity of the new 30-inch line as a substitute for the proposed Line 3602 with Line 1600 and the Moreno Compressor Station in service.
4.22.2 Please confirm that Mr. Bisi did not take into account the 400 MMcf/d that could be delivered through Otay Mesa and into the SDG&E service territory on the Line 3012/3600/2010 path.

RESPONSE 4.22:

4.22.1 570 MMcfd.

4.22.2 Confirmed.

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QUESTION 4.23:

Witness Navin says in his Direct Testimony at 22, Table 5, says that the estimated direct cost of derating Line 1600 would be $15.1 million, but in his Direct Testimony at page 4, Table 1B, witness Woodruff identifies the cost as being $12.8 million.

4.23.1 Please explain the apparent discrepancy between witness Navin's testimony and witness Woodruff's testimony about the estimated direct cost of derating Line 1600.

RESPONSE 4.23:

Neil Navin's direct testimony[1] addresses the difference between the $15.1 million in Table 5 and the $12.8 million identified in Michael Woodruff's direct testimony. $2.3 million associated with removing existing assets are excluded from the revenue requirement request resulting in the $12.8 million identified in Mr. Woodruff's testimony. The Prepared Direct Testimony[2] of Michael Woodruff notes the removal of existing assets excluded from the revenue requirement.

[1] *See* Prepared Direct Testimony of Neil Navin at page 21, footnote 16.
[2] *See* Prepared Direct Testimony of Michael Woodruff at page 1, footnote 2 and page 4, Table 3B.