

**SAN DIEGO GAS & ELECTRIC COMPANY
SOUTHERN CALIFORNIA GAS COMPANY
PIPELINE SAFETY & RELIABILITY PROJECT (PSRP)
(A.15-09-013)
(DATA REQUEST ORA-42)
Date Requested: October 5, 2016
Date Responded: October 20, 2016**

PRELIMINARY STATEMENT

1. These responses and objections are made without prejudice to, and are not a waiver of, SDG&E 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 does 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. SDG&E and SoCalGas possession, custody, or control does not include any constructive possession that may be conferred by SDG&E or 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 objects to the production of documents or information protected by the attorney-client communication privilege or the attorney work product doctrine.
6. SDG&E and SoCalGas expressly reserve 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).
7. 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. SDG&E and SoCalGas will Bates-number such documents only if SDG&E and SoCalGas deem it necessary to ensure proper identification of the source of such documents.
8. Publicly available information and documents including, but not limited to, newspaper clippings, court papers, and materials available on the Internet, will not be produced.

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9. SDG&E and SoCalGas object to any assertion that the data requests are continuing in nature and will respond only upon the information and documents available after a reasonably diligent search on the date of its responses. However, SDG&E and SoCalGas will supplement its answers to include information acquired after serving its responses to the Data Requests if it obtains information upon the basis of which it learns that its response was incorrect or incomplete when made.
10. In accordance with the CPUC's Discovery: Custom And Practice Guidelines, SDG&E and SoCalGas will endeavor to respond to ORA's data requests by the identified response date or within 10 business days. If it cannot do so, it will so inform ORA.
11. SDG&E and SoCalGas object to any ORA contact of SDG&E and SoCalGas officers or employees, who are represented by counsel. ORA may seek to contact such persons only through counsel.
12. SDG&E and SoCalGas objects to ORA's instruction to send copies of responses to entities other than ORA.

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QUESTION 1:

Subject: Mr. Jani Kikuts' Prepared Testimony in A.15-09-013

- a. Assuming the proposed Line 3602 is built, what will be the cost implication, and change in service quality if Line 1600 is abandoned instead of derating it?
- b). How much of your distribution system will need to be rebuilt, if Line 3602 is built?
- c). With respect to the SoCalGas/SDG&E plan to derate Line 1600 to a distribution level of service, would such a derating require SoCalGas/SDG&E to build new, or increase capacity on existing, distribution lines in order to maintain service levels to existing customers?
- d). Please provide an estimate of all costs necessary to provide an equal level of gas service to the past operations of L1600 at the 512 psig or higher.
- e). What will the cost be if L1600 is removed from service rather than derated? What will be the cost associated with serving the customers already in place?

RESPONSE 1:

- a. Applicants have not performed a study that assumes Line 3602 is built and Line 1600 is abandoned. Therefore, comprehensive data is not available. However, in an attempt to be responsive, Applicants offer the following:

Line 1600 supplies approximately 152,000 distribution customers, including core/non-core and electric generation via 50 connections/regulator/meter stations. For many of these connections, Line 1600 is the only supply source in the area. So, if Line 1600 is abandoned (no longer in service as a gas pipeline), new pipelines would need to be built to connect to an alternate supply source such as Line 3602 if gas service is to be maintained. Though a detailed study has not been completed, based on a cursory review using engineering judgement, the effort and expense to do so would be extensive. Communities such as Pala, Valley Center, southern Escondido, Rancho Bernardo and north Poway have no other gas supply source within several miles. It is likely that an extensive new supply pipeline network will need to be constructed if gas service is to be maintained to these communities. Where practical and feasible, it is likely that new segments of pipeline would be required in the existing Line 1600 right of way as part of developing this new supply pipeline network. In summary, and as described above, abandoning Line 1600 did not seem to be a reasonable or feasible alternative, and therefore no study has been performed and no detailed information regarding cost implications are available.

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- b. Please refer to the direct testimony of Neil Navin, Attachment A. Within Attachment A is a sub-attachment (Attachment XI) which explains the distribution system modifications required if line 3602 is built and Line 1600 is derated and operated as a distribution line as proposed.
- c. Yes. Please see response to 1b. above. In addition, please refer to the confidential response to Energy Division DR 2, Question 4, which was provided on July 15, 2016 in response to ORA DR 19 for information on a large electric generator and a large industrial customer that will experience lower supply pressures than they desire and have been accustomed to.
- d. As part of evaluating alternatives associated with satisfying the requirement for Line 1600 that it must be tested, replaced or derated to distribution service, Applicants evaluated a number of alternatives for the segment of Line 1600 between Rainbow and the interconnection point with Line 2010. These alternatives are described in the Cost Effectiveness Analysis (CEA) submitted with this Application. Alternatives A, B, C1, C2, C3, C4, C5, C6, C7, D, E/F, and I are anticipated to provide service levels equal to, or nearly equal to the level of gas service to the past operations of Line 1600 at 512 psig or higher for the segment of Line 1600 from Rainbow to the interconnection point with Line 2010. Costs associated with each of these alternatives are described in Table 8 of the CEA at page 32.

Alternatives B and D will provide adequate volume and desired high pressure to the large electric generation customer described in the response to c. above, while the other alternatives provide the necessary volumes to this customer, but not at the serving pressure historically delivered by Line 1600. For alternatives other than B and D, Applicants have not performed a study necessary to provide a detailed estimate of the total additional costs to build pipeline or compressor facilities that could bring serving pressure for the large electric generator to levels desired by the customer and that they have been historically accustomed to.

Additionally, for the large industrial customer located on the southern segment of Line 1600, Applicants have not performed a study necessary to provide a detailed estimate related to improving serving pressure should this segment of Line 1600 be derated and operated as a distribution line. It should be noted that this southerly segment of Line 1600 is outside of the portion of Line 1600 that was studied and considered in this Application.

- e. For the reasons described in 1a. above, abandoning and removing Line 1600 from service does not appear to be a reasonable or feasible alternative, and therefore no study has been performed and no detailed information regarding cost implications are available.

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QUESTION 2:

Subject: Mr. David Bisi's Prepared Testimony in A.15-09-013

Please provide a detailed schematic diagram of your distribution feeder mains six inches and larger in diameter relating to the part of the service area directly impacted by the proposed installation of Line 3602 and the derating of Line 1600. This map should include line sizes and capacity.

RESPONSE 2:

The attachment contains confidential information and is provided pursuant to Cal. Pub. Util. Code § 583 and G.O. 66-C and the accompanying confidentiality declaration.

Please refer to the detailed schematic map diagram prepared in response to this question. The map diagram includes existing high pressure distribution feeder mains six inches and larger in the requested subject area. Capacities of these high pressure distribution feeder mains are based on the current operational characteristics and configuration of the transmission and high pressure distribution system in the subject area. The capacities provided represent the calculated design level capacities of the pressure regulation equipment at the feed point of the subject lines.

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QUESTION 3:

Re: Pages 6-9

In regards to Redundancy, please provide a list of the redundant transmission lines you have for each of the transmission lines in your system? For each line, provide a percentage redundancy that the line provides, and what area it serves.

RESPONSE 3:

SoCalGas and SDG&E object to this question on the grounds that it is unreasonably burdensome. Without waiving this objection, and subject thereto, SoCalGas and SDG&E respond as follows:

SoCalGas and SDG&E have previously explained in response to ORA DR 8 Question 7 when facilities to improve reliability may be installed. Many transmission lines on the SoCalGas and SDG&E system provide some level of reliability against outages of others. SoCalGas and SDG&E have not compiled a listing of every pipeline which provides this function, nor the "percentage redundancy" that each pipeline so provides.

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QUESTION 4:

Re: Pages 6-9

Have you ever built a transmission line for the express purpose of making a compression station redundant or to eliminate a compressor station?
Please explain.

RESPONSE 4:

Please refer to ORA DR 10 Question 18 in this proceeding.

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QUESTION 5:

Subject: Mr. Travis Sera's Prepared Testimony in A.15-09-013

Re: Page 10, Table 3

Given the risk profile of Line 85 North, it has a Risk Score of 359 as compared to 349 for Line 1600. Please explain why SoCalGas/SDG&E have brought forward a lower risk pipeline ahead of a higher risk one.

RESPONSE 5:

As part of the PSEP application (A.11-11-002), SoCalGas and SDG&E presented remediation plans for both Line 1600 and Line 85. Plans on Line 1600 specifically address PUC Sections 958 and D.11-06-017 for pipelines lacking pressure test records, and plans on Line 85 address pre-1946 non-piggable pipelines in recognition of historical construction practices inclusive of Electric Flash Welded (EFW) long seams. Given that PSEP was focused on pipelines lacking pressure test records in populated areas, Line 1600 progressed first. Line 85, on the other hand, does not have untested pipe in populated areas, was installed before 1946, and is non piggable; therefore, Line 85 was designated as a Phase 1B project. SoCalGas and SDG&E recognize the need to take action on both pipelines and are committed to moving forward with the proposals within PSEP.

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QUESTION 6:

Re: Page 10, Table 3

Why is the risk score for Line 1600 lower than Line 85 North, given that Line 1600 has nearly twice as much Flash Welded pipe as Line 85 North, and Line 85 North is nearly 18 years older? Please explain.

RESPONSE 6:

Footnote 17 on page 10 of Travis Sera's direct testimony explains that a multiplication factor was used to adjust the Potential Impact Radius (PIR) score to reflect the presence of hook cracking in the EFW seam of Line 1600. Line 1600 is ranked lower than Line 85 North because the PIR score inclusive of the multiplication factor produces a lower score vs. Line 85. Additionally, PIR scores do not account for age, and page 10 describes that the ranking in Table 3 is not weighted by length of EFW pipe.

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QUESTION 7:

Re: Pages 7, 10, 18, 19 and Tables 2, 3 & 4 and Figures 1 & 2

According to SoCalGas' calculations in the reference above, at what operating pressure is there no chance of a rupture on Line 1600.

RESPONSE 7:

Please refer to page 13, lines 18 & 19, page 24, lines 1 & 2, lines 7-9, and the discussion on page 25 of Travis Sera's direct testimony.

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QUESTION 8:

Re: Page 7, Table 2.

“The Applicants received the final report for Phase 3 in March 2016. At the time of this filing, planning to validate the ILI results was still in progress”

Please provide an updated table showing these results.

RESPONSE 8:

The final results for the ILI of Line 1600 Phase 3 resulted in no updates to Table 2 on page 7 of T. Sera’s testimony.

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QUESTION 9:

Re: Page 11, Line 13.

“especially in light of the fact that Line 1600 has a known hook cracks along its EFW long seam.”

Since Hook Cracks defects can be eliminated, please provide the following information:

- a) What plan is in place to eliminate this defect from Line 1600?
- b) What percentage or mileage of the pipeline still carries this defect?
- c) How severe are the remaining Hook Crack defects on Line 1600

RESPONSE 9:

- a) Currently, recurring integrity assessments under TIMP will occur at intervals not to exceed 7 years utilizing ILI tools capable of detecting crack-like longitudinal seam weld anomalies. However, the proposed PSRP provides the most comprehensive and complete response to the existence of known hook cracks by de-rating the pipeline to a distribution level of service (see response to ORA DR 42 Question 7)
- b) Less than 1% of pipe segments on Pipeline 1600 that were manufactured with an EFW longitudinal seam weld that show indications of hook cracking.
- c) All remaining crack-like anomalies that were detected through in-line inspection have predicted failure pressure ratios greater than or equal to two times the MAOP.

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QUESTION 10:

Re: Page 11

Are any portions of the Line 85 North pipeline or all of it located in HCAs?

RESPONSE 10:

As of October 6, 2016, there are no HCAs on Line 85 North.

**BEFORE THE PUBLIC UTILITIES
COMMISSION OF THE STATE OF CALIFORNIA**

**DECLARATION OF JIMMIE I. CHO
REGARDING CONFIDENTIALITY OF CERTAIN DATA/DOCUMENTS
PURSUANT TO D.16-08-024**

I, Jimmie I. Cho, do declare as follows:

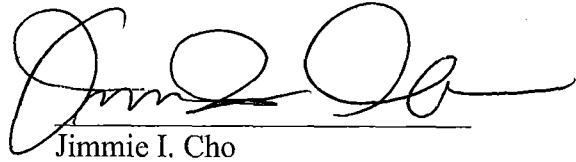
1. I am Senior Vice President of Gas Operations & System Integrity for San Diego Gas & Electric Company (“SDG&E”) and Southern California Gas Company (“SoCalGas”). I have reviewed submitted concurrently herewith (“ORA 42 Q2 map Confidential.pdf”). I am personally familiar with the facts and representations in this Declaration and, if called upon to testify, I could and would testify to the following based upon my personal knowledge and/or belief.

2. I hereby provide this Declaration in accordance with Decision (“D.”) 16-08-024 to demonstrate that the confidential information (“Protected Information”) provided in ORA 42 Q2 map Confidential.pdf is within the scope of data protected as confidential under applicable law, and pursuant to Public Utilities (“PUC”) Code § 583 and General Order (“GO”) 66-C, as described in Attachment A.

3. In accordance with the legal authority described herein, the Protected Information should be protected from public disclosure.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct to the best of my knowledge.

Executed this 20th day of October, 2016, at Los Angeles.

A handwritten signature in black ink, appearing to read "Jimmie I. Cho", written over a horizontal line.

Jimmie I. Cho
Senior Vice President
Gas Operations & System Integrity
San Diego Gas & Electric and
Southern California Gas Company

ATTACHMENT A

SDG&E Request for Confidentiality on the following information in its response to ORA 42 Q2 map Confidential.pdf

Location of Protected Information	Legal Authority	Narrative Justification
<p>ORA 42 Q2 Confidential.pdf</p> <p>Map depicting line name, diameter, capacity</p>	<p>("PHMSA") guidelines in the Federal Register, Vol 81, pg. 40764, published on 6/22/2016 and U.S. Department of Homeland Security Transportation Security Administration ("TSA") guidelines consider the data to be restricted pipeline information.</p> <p>Critical Energy Infrastructure Information ("CEII") under 18 CFR §388.113(c); Federal Energy Regulatory Commission ("FERC") Orders 630, 643, 649, 662, 683, and 702 (defining CEII).</p> <p>Critical Infrastructure Information ("CII") under 6 U.S.C. §§131(3), 133(a)(1)(E); 6 CFR §§ 29.2(b), 29.8 (defining CII and restricting its disclosure).</p> <p>Cal. Gov't Code § 6254(e) exempts from mandatory disclosure, plant production data, and similar information relating to utility systems.</p>	<p>"Diameter" is a specific engineering design value depicting an attribute of a proposed or existing critical infrastructure that could be used to determine the criticality of a gas facility and identify vulnerabilities of the gas delivery network. The value can be used to identify the volume of gas present in an area and ascertain the relative potential consequences of intentional acts against the gas transportation and distribution network. Because of the critical nature of the attribute, it has been identified by PHMSA to be a restricted pipeline attribute in the Federal Register Vol 81, pg. 40764 published on 6/22/2016. Diameter is also exempt from public disclosure per the CEII and CII regulations for the same security reasons.</p> <p>Capacity is also exempt from public disclosure per Cal. Gov't Code § 6254(e) as it is a type of production data relating to utility systems similar to plant production data. The value can be used to identify the volume of gas present in an area and ascertain the relative potential consequences of intentional acts against the gas transportation and distribution network.</p> <p>Maps identifying pipe names and location is considered confidential because it may be used as a key to identifying the location of critical facilities named in other publically available documents.</p>