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.

- 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.

Subject: Prepared Testimony of T. Sera

QUESTION 1:

Page 4 of the Prepared Direct Testimony of T. Sera describes potential issues with the seam type of Line 1600.

- Provide a listing of all "corrosion interacting with manufacturing-related seam flaws", "selective seam corrosion", and "third-party damage" that have been identified or occurred on Line 1600.
- b. Please provide dates that each such issue was identified.
- c. How long has SoCalGas/SDG&E been aware of the risks of "corrosion interacting with manufacturing-related seam flaws", "selective seam corrosion", and "third party damage"
- d. Describe all mitigation efforts SoCalGas/SDG&E have taken to address the risks associated with "corrosion interacting with manufacturing-related seam flaws", "selective seam corrosion", and "third-party damage" on Line 1600.

RESPONSE 1:

a. The table below lists all occurrences of third-party damage on Line 1600. Corrosion interacting with manufacturing-related seam flaws or selective seam corrosion have not been observed or identified on Line 1600.

Туре	Date
Third-party damage	3/27/1974
Third-party damage	6/3/1976
Third-party damage	7/8/1977
Third-party damage	1/29/1979
Third-party damage	5/1/1981
Third-party damage	4/12/1982
Third-party damage	8/5/1982
Third-party damage	8/30/1982
Third-party damage	5/23/1984
Third-party damage	1/28/1988
Third-party damage	9/13/1990

Туре	Date
Third-party damage	1/28/1992
Third-party damage	5/14/1993
Third-party damage	3/28/1995
Third-party damage	2/1/2006
Third-party damage	9/3/2009
Third-party damage	3/13/2013
Third-party damage	4/4/2013
Third-party damage	4/11/2013
Third-party damage	4/11/2013
Third-party damage	4/11/2013
Third-party damage	4/17/2013
Third-party damage	4/24/2013
Third-party damage	4/24/2013
Third-party damage	4/24/2013
Third-party damage	5/20/2013
Third-party damage	5/24/2013
Third-party damage	4/2/2014
Third-party damage	4/17/2014
Third-party damage	5/5/2014
Third-party damage	10/7/2014

- b. Please refer to Response 1(a) above.
- c. Corrosion interacting with manufacturing-related seam flaws", "selective seam corrosion", and "third party damage are all threats that have been documented in the industry and

have been considered by SDG&E and SoCalGas for numerous years. With the advent of the Transmission Integrity Management Program (TIMP) regulations, SDG&E and SoCalGas have incorporated these items as potential threats within the Utilities TIMP program. Through inspections SDG&E and SoCalGas actively look for where these threats are present, and could interact.

d. The maximum allowable operating pressure (MAOP) of Line 1600 was proactively reduced from 800 psig to 640 psig in 2011. From 2012 through 2015, in-line inspections (ILI) were performed and repairs were conducted to mitigate findings from the ILI. Please see the Prepared Direct Testimony of T. Sera at page 8, lines 1-11 for a summary of Line 1600 repair activities.

QUESTION 2:

Provide any change in the risk associated with Line 1600 resulting from the Transmission Integrity Management Program assessments.

RESPONSE 2:

TIMP has numerous process elements including pre-assessment data collection, assessments, remediation, and post assessment analysis. The process elements require the review of installation records, operational records, vendor inspection data, post-assessment remediation activities and the potential application of additional preventative and mitigative measures. Through the combination of activities, there is increased integration of records and knowledge of the pipe's operational condition. Inspections have identified locations where excavations and repairs of the pipeline were made as part of the remediation process resulting in an overall improved reliability of the pipeline and reduction in the risk of unforeseen operational issues affecting its continued safe operation.

QUESTION 3:

Page 9 of the Prepared Direct Testimony of T. Sera states "State directive to pressure test or replace Line 1600 creates a unique and arguably one-time opportunity to permanently address the long-term risks associated with this 1949 vintage, non-state-of-the-art pipeline"?

Please provide the directive mentioned in this quote, and explain why this is a "unique and arguably one-time opportunity".

RESPONSE 3:

The directive mentioned in the quote is Commission Decision (D.)11-06-017 and California Public Utilities Code Section 958. SDG&E's and SoCalGas' Pipeline Safety Enhancement Plan (PSEP) resulted from this directive and SDG&E and SoCalGas do not anticipate another directive of this size or scope in the foreseeable future. The Proposed Project would take advantage of the unique opportunity created by PSEP to satisfy a variety of safety, reliability, resiliency, and flexibility objectives.

QUESTION 4:

Prior to the PSEP, did SoCalGas/SDG&E have any systematic plans or timeframe to replace older pipelines? Please explain.

RESPONSE 4:

Programs have existed to remove copper and cast iron pipe from the system. These programs were in place until completed. Non-cathodically protected steel and specific polyethylene pipe with Aldyl-A resin are systematically addressed through the Distribution Integrity Management Program (DIMP) to prioritize and replace a targeted number of miles of pipe each year. A program to remove pipe at risk during an earthquake was also undertaken in the past. With the implementation of the TIMP, transmission pipe replacement has largely been in response to conditions found during pipe assessments. Some replacement has occurred in order to meet customer demands, respond to conflicts with other infrastructure projects (*i.e.*, Caltrans), and other site specific situations.

QUESTION 5:

Did SoCalGas/SDG&E's baseline Transmission Integrity Management Plan assessment indicate that Line 1600 should be derated? Replaced? Tested? Please provide the portion of the TIMP that shows the indication for Line 1600.

RESPONSE 5:

The baseline assessment utilizing Direct Assessment did not indicate that Line 1600 should be permanently derated, replaced, or tested. The baseline Direct Assessment results are included in SDG&E's and SoCalGas' response to ORA Data Request 6, Question 15. Line 1600 was subsequently assessed using in-line inspection (see SDG&E's and SoCalGas' ORA Data Request 7, Question 10). The ILI inspection also did not result in having the pipeline permanently derated, replaced or tested.

QUESTION 6:

Why is SoCalGas/SDG&E managing part of Line 1004 through TIMP, as discussed at page 10 of the Prepared Direct Testimony of T. Sera?

RESPONSE 6:

Line 1004 is managed through the TIMP because the pipeline operates at a hoop stress greater than 20% specified minimum yield strength (SMYS) and contains high consequence areas (HCA) as defined in 49 CFR § 192.905.

QUESTION 7:

Approximately how many miles of the proposed Line 3602 would run through High Consequence Areas?

RESPONSE 7:

Approximately 32.11 miles of proposed Line 3602 would operate in a HCA, if the pipe was installed in the proposed route, assuming a 36-inch diameter and an MAOP of 800 psig.

QUESTION 8:

Provide a map identifying the transmission pipelines in Table 3 of the Prepared Direct Testimony of T. Sera at page 10, including identifying the mileage in High Consequence Areas and the miles with Flash Welded Seams.

RESPONSE 8:

Please refer to the attached map, which contains confidential information provided pursuant to General Order (G.O.) 66-C and California Public Utilities Code (Cal. Pub. Util. Code) Section 583.



QUESTION 9:

Page 12 of the Prepared Testimony of T. Sera states "on-going integrity assessments under the transmission integrity management plan will be required to monitor remaining seam anomalies for potential future in-service growth and/or interaction with any conditions that may activate potential failure in what are otherwise stable flaws."

- a. If Line 1600 is derated, does the distribution integrity management plan (DIMP) require any similar assessments to the transmission integrity management plan? If so, please provide the relevant portion of the DIMP that provides these requirements.
- b. Would any of the assessments described for Line 1600 need to be performed on Line 3602? If not, which ones would not. If not, please explain.

RESPONSE 9:

- a. DIMP does not mandate any prescriptive requirements for assessments on high pressure lines. However, assessments similar to the TIMP are not precluded, and may be considered for implementation where feasible and warranted.
- b. The proposed Line 3602 will be included in the TIMP program. The pipeline will be scheduled for a TIMP related assessment of its HCA segments and the application of other mandated activities prescribed under TIMP. In-line inspection is the preferred assessment option under TIMP for the proposed Line 3602, which would include both HCA and non-HCA segments.

QUESTION 10:

Provide the Risk, Likelihood of Failure, and Consequence of Failure for Line 1600 currently.

RESPONSE 10:

Please see Amended Application, Volume III: Cost-Effectiveness Analysis at page 63, Table 29, which provides a summary of the risk, likelihood of failure, and consequence of failure for three scenarios: 1) Line 1600 at the current pressure of 640 psig, 2) Line 1600 at the reduced pressure of 320 psig, and 3) the proposed Line 3602.

Table 29 - Risk Scores

Pipeline Option	Likelihood of Incident	HCA Miles	Risk Score
Line 1600 Transmission Pressure	0.0915	32.7	2.99
Line 1600 De-rated	0.0915	2.3	0.21
Proposed Project 3602	0.064	32.1	2.05

**Note: the risk analysis results provided in Table 29 utilizes the 49 CFR Part 191.3 definition of an incident as a proxy for likelihood of failure, and high consequence area mileage as a proxy for consequence of failure. Please refer to the Amended Application, Volume III: Cost-Effectiveness Analysis at pages 58-63 (Section H) for specific detail regarding the risk evaluation process used.

QUESTION 11:

Provide the Risk, Likelihood of Failure, and Consequence of Failure for Line 1600 if it is derated to distribution.

RESPONSE 11:

Please refer to the response to Question 10 above. See also Amended Application, Volume III: Cost-Effectiveness Analysis at page 63, Table 29, which provides a summary of a scenario contemplating the risk, likelihood of failure, and consequence of failure for Line 1600 if it is derated to distribution.

QUESTION 12:

Provide the Risk, Likelihood of Failure, and Consequence of Failure if Line 3602 is in service.

RESPONSE 12:

Please refer to the response to Question 10 above. See also Amended Application, Volume III: Cost-Effectiveness Analysis at page 63, Table 29, which provides a summary of a scenario contemplating the risk, likelihood of failure, and consequence of failure for the proposed Line 3602.

QUESTION 13:

Was Line 1600 safe to operate at the original Maximum Allowable Operating Pressure of 800 psig?

RESPONSE 13:

Yes.

QUESTION 14:

Describe what raising "the score" for certain pipeline segments means as defined on page 15 of the Prepared Direct Testimony of T. Sera.

RESPONSE 14:

Raising "the score" refers to adjustment of the risk score for the presence of manufacturing anomalies.

QUESTION 15:

What is the Longitudinal Joint Factor of Line 1600 under 49 Code of Federal Regulations §192.113?

RESPONSE 15:

1.0.

QUESTION 16:

What would the Longitudinal Joint Factor have been for Line 1600 under the 1942 standards?

RESPONSE 16:

SDG&E and SoCalGas object to this request insofar as it calls for speculation, is unduly burdensome and appears to seek information that is neither admissible in evidence nor likely to lead to the discovery of admissible evidence. Subject to and without waiving these objections, SDG&E and SoCalGas respond as follows.

SDG&E and SoCalGas do not have records that provide sufficient detail to determine the longitudinal joint factor requirements in 1942.

QUESTION 17:

What were SoCalGas/SDG&E's standards for joint factors in determining the maximum allowable operating pressure of a pipeline when the materials for Line 1600 were purchased?

Please provide such standards.

RESPONSE 17:

SDG&E and SoCalGas object to this request insofar as it calls for speculation, is unduly burdensome and appears to seek information that is neither admissible in evidence nor likely to lead to the discovery of admissible evidence. Subject to and without waiving these objections, SDG&E and SoCalGas respond as follows.

SDG&E and SoCalGas do not have records to determine the SDG&E standards for the MAOP of the pipeline at the time of purchase of materials for Line 1600.

QUESTION 18:

What is the Longitudinal Joint Factor of Line 3010 under 49 Code of Federal Regulations §192.113?

RESPONSE 18:

1.0.

QUESTION 19:

What is the largest flaw depth identified during the In-Line Inspection of Line 1600?

RESPONSE 19:

The largest flaw depth reported from the ILI of Line 1600 was 0.155 inches.

QUESTION 20:

What is the average flaw depth identified during the In-Line Inspection of Line 1600?

RESPONSE 20:

The average flaw depth for all reported anomalies is 0.037 inches.

QUESTION 21:

What is the maximum in service pressure experienced by Line 1600? Provide the record showing this.

RESPONSE 21:

Please note that some of the information provided in the attachment contains confidential information provided pursuant to G.O. 66-C and Cal. Pub. Util. Code § 583.

The maximum in service pressure experienced by Line 1600 is 785 psig, since February 1, 2008. The record is attached.



L1600_Pressure_Histo ry Confidential.pdf

QUESTION 22:

Define "well in excess" as used on Line 7 of page 21 of the Prepared Direct Testimony of T. Sera.

RESPONSE 22:

Pressure test thresholds for Line 1600 would be at least 1.25 times the MAOP, and are expected to be in excess of 1.5 times the MAOP commensurate with class location 3 and 4 requirements. These amounts are well in excess of the pressures experienced when the pipeline is in service.

QUESTION 23:

Assuming Line 1600 passed the pressure test, what is the likelihood of rupture for Line 1600 at a Maximum Allowable Operating Pressure of 640 psig?

RESPONSE 23:

The Pipeline and Hazardous Materials Safety Administration (PHMSA) issued FAQ-219 on 9/16/2004, which states:

"OPS considers a successful Subpart J pressure test to be sufficient to reveal any manufacturing and construction defects that could jeopardize pipeline integrity at operating pressures less than or equal to MAOP, as of the date of the pressure test. Any manufacturing and construction defects that survive the Subpart J pressure test are considered to be stable and not subject to failure, unless other threats adversely affect the stability of the residual manufacturing and construction defects."

Based upon PHMSA guidance and the technical research that its based upon, assuming Line 1600 passes a pressure test of at least 1.25 times the MAOP, rupture is generally not considered a threat at pressures equal to or less than MAOP, and there is an absence of conditions that could affect the stability of residual manufacturing and construction defects on the line. Factors such as excavation damage and corrosion could affect the future stability of flaws that passed the pressure test.

QUESTION 24:

Assuming Line 1600 is not pressure tested, what is the likelihood of rupture for Line 1600 at a Maximum Allowable Operating Pressure of 320 psig?

RESPONSE 24:

Rupture is not expected to occur at pressures equal to or less than 320 psig. Please see the Prepared Direct Testimony of T. Sera, Section III.D at pages 23-24.

QUESTION 25:

Assuming Line 1600 passed the pressure test, what is the likelihood of a leak for Line 1600 at a Maximum Allowable Operating Pressure of 640 psig?

RESPONSE 25:

Leakage can be caused by time dependent threats such as corrosion. The greater the time period after the pressure test increases the likelihood of leakage. Coatings, cathodic protection, direct assessment and in-line inspection are all methods used to prevent and identify anomalies prior to leakage occurring, and therefore prevent leakage.

QUESTION 26:

Assuming Line 1600 is not pressure tested, what is the likelihood of a leak for Line 1600 at a Maximum Allowable Operating Pressure of 320 psig?

RESPONSE 26:

Line 1600 is currently operating at an MAOP of 640 psig. If the MAOP is lowered to 320 psig, the previous operation at 640 psig would act like an in-service pressure test.

Therefore, the pipeline has in practicality been pressure tested to address the rupture threat associated with manufacturing defects. The likelihood of a leak is the same as described in response to Question 25 above.

QUESTION 27:

What was the safety margin of Line 1600 prior to the ILI-rated repairs and reduced operating pressure?

RESPONSE 27:

Prior to both the in-line inspection and the proactive pressure reduction, the lowest calculated safety margin on Line 1600 at 800 psig was 2.3 times the MAOP.

QUESTION 28:

What is the safety margin of Line 1600 prior to the ILI-rated repairs and reduced operating pressure?

RESPONSE 28:

Please refer to response to Question 27 above.

QUESTION 29:

What is the safety margin of Line 3010?

RESPONSE 29:

The safety margin for Line 3010 is 2.24 times the MAOP.

QUESTION 30:

What would the capacity and Maximum Allowable Operating Pressure of Line 1600 be at 29.9% Specified Minimum Yield Strength?

RESPONSE 30:

At 29.9% SMYS, the MAOP of Line 1600 would be 486 psig, resulting in a nominal capacity of 65 MMcfd.

QUESTION 31:

The cost-effectiveness analysis provided by SoCalGas and SDG&E with the Amendment to the Application states on page 3, "After evaluating the net costs and benefits of the Proposed Project and Alternatives, this Cost-Effectiveness Analysis concludes that the Proposed Project is the most cost-effective, prudent alternative." With this in mind, please answer the following:

- a. Did SoCalGas/SDG&E provide any instructions to Price Waterhouse Coopers to determine that the Proposed Project was the most cost-effective before the analysis?
- b. Did SoCalGas/SDG&E provide any communications or documentation to Price Waterhouse Coopers to in any way suggest that the cost-effectiveness analysis conclude that the Proposed Project was the most cost-effective, prudent alternative?
- c. Please provide all instructions, documentation and communications from SoCalGas/SDG&E to Price Waterhouse Coopers related to the assignment for Price Waterhouse Coopers to prepare the cost-effectiveness analysis.
- d. Did Price Waterhouse Coopers prepare any drafts of the cost-effectiveness analysis to SoCalGas/SDG&E? If so, please provide all such drafts.
- e. Please provide all notes and other documents of Price Waterhouse Coopers related to the preparation of the cost-effectiveness analysis.
- f. Please provide all notes and other documents of SoCalGas/SDG&E related to the preparation of the cost-effectiveness analysis.

RESPONSE 31:

SDG&E and SoCalGas object to this request insofar as it is over-broad, vague, compound, and burdensome. It seeks an expansive amount of information, most of which would not be relevant and, additionally, would be impossible to compile. SDG&E and SoCalGas further object to this request, whether broadly or more narrowly construed, to the extent it calls for production of any privilege internal documents of Applicants. A request for such records is unreasonable and unduly burdensome in light of the work product doctrine and other privileges protecting such internal documents from discovery. Subject to and without waiving these objections, SDG&E and SoCalGas respond as follows:

- a. The Cost Effectiveness Analysis is an independent study, conducted by a highly reputable and experienced accounting and advisory services firm. The Cost Effectiveness Analysis objectively evaluates the relative costs and benefits of the Proposed Project and various project alternatives. While the SDG&E and SoCalGas provided PricewaterhouseCoopers (PwC) with the data necessary to conduct such analysis, SDG&E and SoCalGas did not provide instructions that the Analysis should reach a specific conclusion or find that the Proposed Project is the most cost-effective option.
- b. Please refer to Response 31(a) above.
- c. Written information, documentation, and data provided by SDG&E and SoCalGas to PwC and relied upon by PwC for its Cost Effectiveness Analysis is included in the Cost Effectiveness Analysis itself or in the direct testimony and workpapers made available on SDG&E and SoCalGas' websites: <u>http://www.sdge.com/regulatory-filing/15786/pipeline-safety-reliability-project</u>

PwC was retained by Brownstein Hyatt Farber Schreck (BHFS), SDG&E's and SoCalGas' outside counsel, to assist BHFS in its representation and advisement of SDG&E and SoCalGas. All work on the Cost Effectiveness Analysis was prepared under the direction of and overseen by BHFS, and documentation and communication was made by and through legal counsel. Accordingly, all other documentation and communications relating to the Cost Effectiveness Analysis is protected by the attorney/client and attorney work product privileges. (Cal. Evid. Code §§ 952, 954; Cal. Code Civ. Proc. § 2018.030; Costco Wholesale Corp. v. Superior Court (Randall) (2009) 47 Cal.4th 725, 732; Gordon v. Superior Court (1997) 55 Cal.App.4th 1546, 1557 ["[T]he [attorney-client] privilege is absolute and disclosure may not be ordered, without regard to relevance, necessity or any particular circumstances peculiar to the case."]; Citizens for Ceres v. Superior Court (2013) 217 Cal. App. 4th 889, 912 [explaining that work produced by an attorney's agents and consultants is protected by the attorney work product doctrine.].)

- d. PwC was retained by BHFS, SDG&E's and SoCalGas' outside counsel, to assist BHFS in its representation and advisement of SDG&E and SoCalGas. All work on the Cost Effectiveness Analysis was prepared under the direction of and overseen by BHFS. Accordingly, all drafts of the Analysis constitute attorney work product which is not subject to disclosure to third parties. (See Cal. Code Civ. Proc. § 2018.030; *Citizens for Ceres v. Superior Court* (2013) 217 Cal. App. 4th 889, 912 [explaining that work produced by an attorney's agents and consultants is protected by the attorney work product doctrine.].)
- e. Please refer to Response 31(c) above.

Accordingly, all other notes and documents of PwC are covered by the attorney/client and/or attorney work product privileges, and are not subject to disclosure to third parties. (Cal. Evid. Code § 954, 952; Cal. Code Civ. Proc. § 2018.030; *Citizens for Ceres v. Superior Court* (2013) 217 Cal. App. 4th 889, 912 [explaining that work produced by an attorney's agents and consultants is protected by the attorney work product doctrine.]; *Rico v. Mitsubishi Motors Corp.* (2007) 42 Cal. 4th 807, 814 [notes were protected by the work product doctrine].)

f. Please refer to Response 31(c) above.

Accordingly, all other notes and documents of SDG&E and SoCalGas related to the preparation of the Cost Effectiveness Analysis are covered by the attorney/client and/or attorney work product privileges, and are not subject to disclosure to third parties. (Cal. Evid. Code § 954, 952; Cal. Code Civ. Proc. § 2018.030; *Citizens for Ceres v. Superior Court* (2013) 217 Cal. App. 4th 889, 912 [explaining that work produced by an attorney's agents and consultants is protected by the attorney work product doctrine.]; *Rico v. Mitsubishi Motors Corp.* (2007) 42 Cal. 4th 807, 814 [notes were protected by the work product doctrine].)