PIPELINE SAFETY & RELIABILITY PROJECT (PSRP)

(A.15-09-013)

(DATA REQUEST ORA 34)

Date Requested: August 17, 2016 Date Responded: September 2, 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.

PIPELINE SAFETY & RELIABILITY PROJECT (PSRP)

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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.

PIPELINE SAFETY & RELIABILITY PROJECT (PSRP)

(A.15-09-013)

(DATA REQUEST ORA 34)

Date Requested: August 17, 2016 Date Responded: September 2, 2016

Subject: Cost Effectiveness Analysis in A.15-09-013 by PWC and Mr.Neil Navin Prepared Testimony Attachment A & B PSRP Report, Mr. David Bisi Prepared Testimony, Ms. Gwen Marelli Prepared Testimony, & Mr. Jason Bonnett Prepared Testimony in A.15-09-013

QUESTION 1:

Section E "Increased Gas Storage through Line Pack" on page 54 of the CEA states: "All additional pipelines on the SDG&E system incrementally increase the system line pack to greater or lesser extents. Line pack simply provides an operational buffer to changes in customer demand, and any incremental benefit that line pack provides is implicitly captured by the potential increases in system capacity provided in Section D above." Page 52 of the CEA describes the scale for scoring the projects against the Section D "Increased System Capacity" benefit above:

- 1. Reduces system capacity by more than 20%
- 2. Reduces system capacity by up to 20%
- 3. No change to system capacity
- 4. Increases system capacity by up to 20%
- 5. Increases system capacity by more than 20%

Table 10 on page 35 of the CEA shows the Benefits Evaluation Scoring Summary. The 4th item listed on Table 10 is System Capacity benefits criteria and the 5th item on Table 10 is the Gas Storage thru Line Pack benefits criteria. The Proposed Project and all Project Alternatives are scored exactly the same in these two line items.

- (a) Please identify the amount of gas storage through system line pack currently available on the SDG&E gas system.
- (b) Please identify the amount of the expected incremental increase of gas storage through system line pack on the SDG&E gas system associated with the Proposed Project.
- (c) Please state the basis for the identified expected incremental increase in response to item
- (b) by the Applicants. [Note: Is the basis verified through computerized modelling of gas flows?]
- (d) Please state the amount of the expected incremental increase of system line pack on the SDG&E gas system associated with each of the Project Alternatives.
- (e) Given Table 10 described above showing system capacity benefits as 4th item which is separately scored from gas storage thru line pack benefits as 5th item, please explain the

PIPELINE SAFETY & RELIABILITY PROJECT (PSRP)

(A.15-09-013)

(DATA REQUEST ORA 34)

Date Requested: August 17, 2016 Date Responded: September 2, 2016

statement "any incremental benefit that line pack provides is implicitly captured by the potential increases in system capacity provided in Section D above."

RESPONSE 1:

- a. The SDG&E gas transmission system currently has approximately 140 million cubic feet (MMCF) of linepack capacity, of which 35-40 MMCF are usable. The remainder is necessary to maintain minimum operating pressures on the transmission system.
- b. The Proposed Project, the installation of a 36-inch diameter pipeline and lowering the operating pressure of Line 1600 to 320 psig, would increase the SDG&E gas transmission system linepack by approximately 60 MMCF, of which approximately 20 MMCF are usable. This represents an increase of approximately 50% in usable pack.
- c. Yes, the expected incremental increase provided in response to Question 1(b) above was calculated through computerized modelling of gas flows.
- d. Please refer to the Response to ORA DR 30, Question 2(e). Because hydraulic modeling was not performed for the project alternatives, the specific impact on the SDG&E gas transmission linepack capacity is unavailable. However, as noted in the Cost-Effectiveness Analysis (CEA) text quoted in this Question, linepack capacity increases when system capacity increases, and decreases when system capacity decreases. That is reflected in the scoring for this criteria. Further, not every project alternative identified in the Application will result in an increase in system linepack capacity.
- e. The incremental capacity increase of 200 MMcfd provided by the Proposed Project took into account the usable linepack (pack and draft capacity) afforded by the Proposed Project.

PIPELINE SAFETY & RELIABILITY PROJECT (PSRP)

(A.15-09-013)

(DATA REQUEST ORA 34)

Date Requested: August 17, 2016 Date Responded: September 2, 2016

QUESTION 2:

Section F "Reductions in Gas Price for Ratepayers" on page 54 of the CEA states: "Reduction in gas prices to ratepayers is not expected for any of the project options and under two projects there is a potential for increases to ratepayer gas prices as discussed below."

Item 6.1 provides a brief description below on expected impact on gas prices of the Project Alternatives for ratepayers":

"Reduction in gas prices to ratepayers is not expected for any of the options being discussed presently and for two of the Alternatives (namely, Otay Mesa and LNG Storage) there is a potential for an increase in gas prices to ratepayers owing to transportation costs to fill LNG tanks and the incremental transportation costs for supply from Otay Mesa. "

Page 54 of the CEA describes the scale for scoring this benefit:

- 1. Increase in gas prices to ratepayers expected
- 2. N/A
- 3. No change in gas prices to ratepayers expected
- 4. N/A
- 5. Potential reduction in gas prices to ratepayers

Table 23 on page 54 of the CEA shows the benefit scores with respect to the "Reduction in Gas Prices to Ratepayers" benefit. Table 23 shows that the Proposed Project and all the Project Alternatives except two (i.e., the Otay Mesa Alternatives and the LNG Alternative) obtained scores of 3 which means "No change in gas prices to ratepayers expected." The Otay Mesa and LNG Alternatives each had obtained scores of 1 which means "Increase in gas prices to ratepayers expected."

Pages 1-2 of Mr. Bonnet's Prepared Testimony states:

"the incremental gas transportation revenue requirements associated with the Proposed Project will be allocated to the Backbone Transportation Service (BTS) rates.4 The BTS rates, which are designed to recover the costs of the backbone transmission system, can be likened to postage stamp rates. Effectively, customers pay a common rate to deliver gas along the backbone transmission system from any receipt point to the SoCalGas or SDG&E City gate. From there, customers may then deliver gas to their end use account at the appropriate "City gate-to-meter" transportation rate. Alternatively, customers can purchase gas at the City gate without directly purchasing backbone capacity."

PIPELINE SAFETY & RELIABILITY PROJECT (PSRP)

(A.15-09-013)

(DATA REQUEST ORA 34)

Date Requested: August 17, 2016 Date Responded: September 2, 2016

In addition, Mr. Bonnet states on page 5: "As discussed above, once Line 3602 is placed into service, the Utilities will convert Line1600 into a natural gas distribution line which will operate at a lower pressure. As discussed in Mr. Navin's testimony, de-rating of Line 1600 will incur additional distribution costs. Unlike recovery of Line 3602 costs through the BTS rates, the Line 1600 de-rating costs will be recovered through transportation rates on a Long Run Marginal Cost (LRMC) Scalar method.7"

- (a) Given the above statements from Mr. Bonnet's Prepared Testimony, please clarify whether the "reductions in gas price to ratepayers" referenced in the above statements from Section F of the CEA pertain specifically to the SoCalGas backbone transmission rate, or to the SDG&E's gas transportation rate for its backbone transmission only, or to the gas distribution rate on SDG&E's system, and if not, please explain.
- (b) Based on your response to item (a), please identify the amount of potential "increase in gas prices to ratepayers expected" which are associated with the Otay Mesa Alternatives and the LNG Alternative.
- (c) Given the description from Item 6.1, please identify the estimated amount of transportation costs to fill LNG tanks and the estimated incremental transportation costs for supply from Otay Mesa referenced in the above statements. Please clearly state all assumptions and inputs for the calculation of the estimate provided.
- (d) Please explain how the identified of transportation costs to fill LNG tanks and incremental transportation costs for supply from Otay Mesa in response to item (c) was converted to the identified amount of potential increase in gas prices expected in response to item (b).
- (e) Please state the underlying assumptions behind the benefit score of "No change in gas prices to ratepayers expected" and clarify to what extent a change in any of those assumptions could possibly result in a change in the benefit score.
- (f) Have there been any changes in forecast LNG prices to Otay Mesa, given the expansion of the Panama Canal?

RESPONSE 2:

- a. The "reductions in gas price to ratepayers" pertains to a reduction in commodity cost or off system transportation costs and not to the SDG&E/SoCalGas backbone transmission or SDG&E gas distribution rates.
- b. The expected increase in gas costs to customers for Alternative E/F: Otay Mesa

PIPELINE SAFETY & RELIABILITY PROJECT (PSRP)

(A.15-09-013)

(DATA REQUEST ORA 34)

Date Requested: August 17, 2016 Date Responded: September 2, 2016

Alternatives would be at least \$0.30 per Dth, which is the estimated net cost to procure and transport gas across the North Baja pipeline system comprised of three pipelines (North Baja Pipeline, Gasoducto Rosarito and Transportadora de Gas Natural de Baja California, assuming that capacity were available. See the Prepared Direct Testimony of Gwen Marelli at pages 3-6.

The delivered price for Alternative G: LNG Storage (Peak-Shaver) Alternative is approximately \$0.925 per gallon. This results in an LNG cost per dekatherm of \$11.20 (1 LNG gallon = 82,644 BTU = 0.0826 decatherm). The transportation cost estimate for LNG are not identified separately from the commodity cost. Note that this gas cost does not include the construction cost of the LNG storage facilities.

- c. See response to Question 2(b) above.
- d. See response to Question 2(b) above.
- e. SDG&E and SoCalGas used their system knowledge, operational experience and engineering judgment to determine that the remaining alternatives would result in "No change in gas prices to ratepayers". If there were changes to the system or operational experience, which have not occurred at this point, such changes could possibly result in a change in benefit score.
- f. SDG&E and SoCalGas do not monitor world LNG prices and cannot provide input on the impact of the expansion of the Panama Canal on LNG prices.

PIPELINE SAFETY & RELIABILITY PROJECT (PSRP)

(A.15-09-013)

(DATA REQUEST ORA 34)

Date Requested: August 17, 2016 Date Responded: September 2, 2016

QUESTION 3:

Table 1 on page 3 of Mr. Bonnett's Prepared Testimony shows "Illustrative BTS Revenue and Rate Impacts" for the period 2020 through 2024. Table 1 is reproduced below:

Table 1
Illustrative BTS Revenue and Rate Impacts

YEAR	Current BTS Revenue Requirement \$ Million	PSRP Revenue Requirement \$ Million	Total BTS Revenue Requirement \$ Million	Current BTS SFV Rate \$/dth/d	BTS PSRP Rate Impact \$/dth/d	Total BTS SFV Rate \$/dth/d
	A	В	C = A + B	D	E	F = D + E
2020	\$168.6	\$3.5	\$172.1	\$0.162	\$0.003	\$0.165
2021	\$168.6	\$85.9	\$254.6	\$0.162	\$0.083	\$0.245
2022	\$168.6	\$85.6	\$254.3	\$0.162	\$0.082	\$0.244
2023	\$168.6	\$82.8	\$251.5	\$0.162	\$0.080	\$0.242
2024	\$168.6	\$80.0	\$248.6	\$0.162	\$0.077	\$0.239

Notes:

BTS stands for Backbone Transmission Service PSRP stands for Pipeline Safety Reliability Project SFV stands for Straight Fixed Variable dth/d stands for decatherms per day

Mr. Bonnett states on page 3:

"Customers who directly purchase firm BTS capacity from SoCalGas will be impacted as shown in Table 1. However, most end-use customers do not directly pay the BTS rate. Core customers indirectly pay for BTS through the core procurement tariff. Core Aggregation Transportation and noncore customers who procure their gas commodity from a marketer or at the Citygate indirectly pay for BTS, as it is a likely cost of business for market participants providing gas commodity to them. Since these customers' transportation (*i.e.*, City gate-to-meter) rates are not impacted by this proposal, an alternative method of illustrating the rate impact of the Proposed Project on them is to observe bundled rate impacts that include a proxy gas commodity price. The BTS rate impact from Table 1 of \$0.083 per dekatherm (converted to \$0.008 per therm for Table 2) is added to these bundled rates to approximate the Proposed Project's impact. These illustrative rates are provided below in Table 2."

Mr. Bonnett states on page 5:

"The rates shown assume the forecasted revenue requirements provided in the Prepared Direct Testimony of Michael Woodruff. As Mr. Woodruff explains, the revenue requirements to be

PIPELINE SAFETY & RELIABILITY PROJECT (PSRP)

(A.15-09-013)

(DATA REQUEST ORA 34)

Date Requested: August 17, 2016 Date Responded: September 2, 2016

ultimately collected in rates will be trued-up for actual costs at the conclusion of the Proposed Project."

- (a) Please confirm that based on Table 1 above, for the first full year in service of the Proposed Project in 2021, the PSRP BTS rate impact is estimated at \$0.083/dth/d, which represents a 51.2 percent increase to the current BTS SFV rate of \$0.162/dth/d.
- (b) Please confirm the reason that the rates shown in Table 1 are illustrative only is because "The rates shown assume the forecasted revenue requirements provided in the Prepared Direct Testimony of Michael Woodruff. As Mr. Woodruff explains, the revenue requirements to be ultimately collected in rates will be trued-up for actual costs at the conclusion of the Proposed Project." If not, please explain.
- (c) If there are any other additional reasons why the rates are "illustrative rates" other than stated in item (b) above, please so state.
- (d) Please identify the Total Proposed Project costs that results in the PSRP Revenue Requirements shown in column B of Table 1 shown above.
- (e) Please provide the component breakdown of the total Proposed Project costs identified in item (d) above, including any contingency and any loaders.
- (f) Please provide the Commission decision authorizing the Proposed Project to be included as part of the Backbone Transmission Service, if approved.

RESPONSE 3:

- a. Confirmed. However, as shown in Table 2 of the Prepared Direct Testimony of Jason Bonnett, the increased BTS rate only accounts for a de minimis increase in residential customer bills.
- b. Yes, in addition to the response to Question 3(c) below.
- c. The rates shown are illustrative because they only show the impact of the Proposed Project compared to existing rates at the time of the filing. Future rates due to changes in the General Rate Case, Triennial Cost Allocation Proceeding, Regulatory Account updates, or other proceedings are not shown nor forecasted.
- d. \$528.5 M

PIPELINE SAFETY & RELIABILITY PROJECT (PSRP)

(A.15-09-013)

(DATA REQUEST ORA 34)

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e.

	Total Direct Costs		Escalation Impact		Loaders		Total	
Material	\$	90	\$	7	\$	7	\$	104
Construction	\$	256	\$	34	\$	20	\$	310
Environmental	\$	26	\$	3	\$	2	\$	31
Land	\$	6	\$	1	\$	0	\$	7
Company Labor	\$	18	\$	2	\$	22	\$	42
Other	\$	30	\$	2	\$	2	\$	34
							\$	528.5

Note: \$44.4 M of contingency is included in total direct costs above. A breakdown of direct dollars is shown in Table 6 of the Prepared Direct Testimony of Neil Navin at page 25.

f. The Commission determined in Decision (D.) 11-04-032 (Firm Access Rights update) that all SDG&E transmission is considered Backbone. Thus, since the proposed Line 3602 would be a transmission pipeline and entirely within the SDG&E service territory, the costs would be allocated to the BTS rate. See Section V of the Prepared Direct Testimony of Gwen Marelli.

PIPELINE SAFETY & RELIABILITY PROJECT (PSRP)

(A.15-09-013)

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QUESTION 4:

Section G "Other Benefits" on page 55 of the CEA states: "Other benefits assessed in this study include environmental and other external or societal impacts as a result of any of the project options. The primary topics evaluate emissions reductions, air quality improvements, and the environmental and jurisdictional zoning impacts of route or site selection. Of these, net emissions reductions as a benefit is scored below."

Item 7.1 provides a description of the scoring criteria for "Emissions reductions due to reduced operating hours at Moreno Compressor Station" given below:

"The ability to manage excess capacity or load demand with minimal compression can lead to significant reductions in emissions at Moreno Compressor Station and a consequential reduction in combustion emissions of GHGs such as carbon dioxide, as well as a reduction in emissions of other pollutants such as nitrous oxides.

"Section G also provides the scale for scoring the projects against this benefit.

- 1. Potential increase in net emissions at Moreno Compressor Station
- 2. N/A
- 3. 0% reduction in net emissions at Moreno Compressor Station
- 4. 0% to 75% reduction in net emissions at Moreno Compressor Station
- 5. 75% or greater reduction in net emissions at Moreno Compressor Station."

Table 24 of the CEA provides the Summary of "Other Benefits" Scores displaying the scores against the benefit of "Emissions reductions due to reduced operating hours at compressor stations." The Proposed Project and several Project Alternatives (namely, Alternative Diameter 42", Otay Mesa, LNG Storage, Offshore Route, Blythe to Santee Alternatives 1 & 2, Cactus City to SD, and 2nd Pipeline Along Line 3010) obtained a score of 5 which means "75% or greater reduction in net emissions at Moreno Compressor Station."

- (a) Please breakdown the term "Other benefits" if there is more than one "other" benefit and fully describe and explain all the "other" component elements which comprise the calculation of the term referred to as "net emissions at Moreno Compressor Station."
- (b) Please provide the active excel spread sheets for the calculation of the "net emissions at Moreno Compressor Station" which shows the results in Table 24 of the CEA.
- (c) Please identify the current level of emissions at Moreno Compressor Station.

PIPELINE SAFETY & RELIABILITY PROJECT (PSRP)

(A.15-09-013)

(DATA REQUEST ORA 34)

Date Requested: August 17, 2016 Date Responded: September 2, 2016

(d) Please identify the reduction in emissions at Moreno Compressor Station associated with the Proposed Project and the Project Alternatives.

- (e) Please identify the analysis performed by the Applicants or consultants that enabled the identification of the reduction in emissions per the response to item (d) above.
- (f) Please identify the inputs and assumptions to the analysis performed by the Applicants or consultants per the response to item (e) above.
- (g) Please clarify whether the score of "75% or greater reduction in net emissions at Moreno Compressor Station" means combustion emissions of GHGs pertaining to carbon dioxide only or whether any other pollutants are also included. If so, please identify the components of the reduced emissions, if available from the analysis.

RESPONSE 4:

- a. The term "Other benefits" is fully described in the CEA at pages 55-57.
- b. Some of the information in the attachment contains confidential information and is provided pursuant to G.O. 66-C and Cal. Pub. Util. Code § 583. Additional detail on which information is considered sensitive and confidential is provided in the accompanying declaration. See the attached Excel spreadsheet which shows the calculation of the net emissions at the Moreno Compressor Station.

SDG&E and SoCalGas used their system knowledge, operational experience and engineering judgment to determine the potential reduction in operations / emissions at the Moreno Compressor Station associated with the Proposed Project and Alternatives.

The percent reduction provided in Alternatives C4-C6 was calculated based on a ratio of the pipe diameter compared to the pipe diameter of the Proposed Project.

- c. See the Prepared Direct Testimony Neil Navin, Attachment XII Moreno Compressor Station of Attachment A PSRP Report at pages 3-4.
- d. See the response to Question 4(c) above.
- e. System knowledge, operational experience and professional judgment were used to determine the potential reduction in operations / emissions at the Moreno Compressor Station associated with the Proposed Project and Alternatives.

PIPELINE SAFETY & RELIABILITY PROJECT (PSRP)

(A.15-09-013)

(DATA REQUEST ORA 34)

Date Requested: August 17, 2016 Date Responded: September 2, 2016

f. See the Prepared Direct Testimony of Neil Navin, Attachment XII Moreno Compressor Station of Attachment A - PSRP Report at pages 3-8 for historic emission information used in the analysis performed. See also the response to Question 4(b) above for assumptions for reductions for alternatives.

g. Reductions in net emissions at the Moreno Compressor Station means combustion emissions of greenhouse gas (GHG) pertaining to carbon dioxide and combustion emissions of NOx.

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

DECLARATION OF BETH MUSICH REGARDING CONFIDENTIALITY OF CERTAIN DATA/DOCUMENTS PURSUANT TO D.16-08-024

I, Beth Musich, do declare as follows:

- 1. I am the Director of Gas Transmission Operations (designated by Rodger Schwecke Vice President of Gas Transmission & Storage) for Southern California Gas Company ("SoCalGas"). I have reviewed the excel attachment to ORA DR 34 Question 4b, submitted concurrently herewith. In addition, 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 the excel attachment to ORA DR 34 Q 4b submitted concurrently herewith and as described in specificity in Attachment A, is within the scope of data protected as confidential under applicable statutory provisions including, but not limited to, Public Utilities ("PUC") Code § 583, Govt. Code § 6254(k) and/or General Order ("GO") 66-C.
- In accordance with the statutory provisions 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 2nd day of September, 2016, at Los Angeles, California.

Beth Musich

Director of Gas Transmission Ops Southern California Gas Company

ATTACHMENT A

SoCalGas and SDG&E Request for Confidentiality on the following information in its response to ORA DR 34 Question 4b

Excel file: ORA_34_4b, Summary Tab, Column D: GHG Emissions (shaded in grey).

Future projections of greenhouse gas (GHG) emissions from the Moreno Compressor Station could be used by members of the public for price arbitrage purposes including during any of the quarterly cap-and-trade auctions held by the California Air Resources Board.