

**SAN DIEGO GAS & ELECTRIC COMPANY
SOUTHERN CALIFORNIA GAS COMPANY
PIPELINE SAFETY & RELIABILITY PROJECT (PSRP)
(A.15-09-013)
(DATA REQUEST ORA DR 23)
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 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:

In Response to ORA-17 Question 1(a) where ORA asks Sempra to provide a detailed explanation showing how the contingency percentages were derived, including any and all supporting workpapers and calculations relied on to obtain the contingency percentages show in Table 6 at p.25 of Mr. Navin's testimony, Sempra directed ORA to Section 7.0 Contingency of Attachment A of Mr. Navin's Testimony for a discussion on the methodology and to confidential workpapers provided in ORA-03 for detailed direct cost estimates with contingency (reference folder Attachment A-PSRP Report file name: *Attach VI_Cost Estimate Confidential.xlsm*). Section 7.0 Contingency discussion states on p.27: "The contingency estimate for the proposed project was developed based on expert judgment." In addition it states that expert judgment is defined by the AACE in Recommended Practice NO.40R-08 "as judgment that has a strong basis in experience and competency in risk management and analysis." Section 7.0 Contingency cites to the Project Management Institute (PMI) Project Management Body of Knowledge (PMBOK) guidance on contingency including in section 7.2.2.6 Reserve Analysis stating "contingency reserves can provide for a specific activity, for the whole project, or both." Sempra adds that "PMBOK includes guidance allowing both project-and activity- level contingency reserves in sections 7.2.3.1 Activity Cost Estimates and 7.3.3.1 Cost Baseline."

- (a) Please identify all subject matter expert persons, teams, and outside companies relied on by Sempra for the "expert judgment" with respect to the Contingency estimates included in the CEA for the Proposed Project and all the alternatives, and provide a brief description of these persons, teams or outside companies' strong basis in experience and competency in risk management and analysis.
- (b) Please state whether Sempra has previously or presently engaged the service of the experts identified in item (a) above, and if so, please identify the Sempra project these experts have or had worked on for providing contingency estimates.
- (c) Please provide a brief description of the outcome of the previous engagement described in item (b) above in terms of percentage difference to actual costs of the range of cost estimates that were provided.
- (d) Please identify the project component where the guidance on contingency from PMBOK in section 7.2.2.6 Reserve Analysis, sections 7.2.3.1 Activity Cost Estimates, and 7.3.3.1 Cost Baseline as described, had been specifically applied with respect to the contingency estimates for Proposed Project Line 3602 and the derate of Line 1600 on one hand and the Hydrotest of Line 1600 on the other.

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- (e) Please provide electronic copies of the above described guidance from PMBOK in section 7.2.2.6 Reserve Analysis, sections 7.2.3.1 Activity Cost Estimates, and 7.3.3.1 Cost Baseline.

RESPONSE 1:

- a. SDG&E and SoCalGas utilized both internal and external resources to develop the cost estimate including contingency. Internal resources include Project and Construction Services, Gas Engineering, Major Project Cost Estimating team, Land Services and Environmental Services. External resources include SPEC Services Inc. (SPEC), ARB, Inc. (ARB), Clark Land Resources, Inc. (CLR), Insignia Environmental (Insignia), and Pricewaterhouse Coopers (PwC).

SDG&E and SoCalGas deliver natural gas safely and reliably, across an approximately 20,000 square mile service area that includes the San Diego region. Team members across the multi-disciplines (Project and Construction Services, Gas Engineering, Major Project Cost Estimating, Land Services and Environmental Services) who contributed to the Pipeline Safety & Reliability Project (PSRP or Proposed Project) have worked on and supported gas infrastructure projects across both service territories with 5 years to over 40 years of project management experience.

SPEC is a full service engineering and project management firm. For over 30 years, SPEC has been providing planning, engineering, design, project management, survey, right-of-way and permit acquisition, specification procurement, and construction coordination for petroleum and natural gas pipelines in California and the Southwest. SPEC has the expertise to assist clients with front-end planning and cost estimates to determine feasibility and optimal solutions.

ARB has over 5 decades of experience in pipeline construction and has been utilized by the utilities for many pipeline projects. ARB's experience and long-term relationship with SDG&E and SoCalGas make them an ideal candidate to provide construction consultation and cost estimating services for the Proposed Project.

CLR is a woman owned business enterprise (WBE) firm providing Utility Company and Municipal agencies property acquisition, right of way, and land management services for water, gas and electrical transmission project. CLR offers a variety of services and resources to assist with real property needs, including: Property Acquisition: Fee and Easement, Regulatory Approval Process, Encroachment Programs, Land Management, Utility Coordination and Conflict Resolutions, Site and Linear Route Selection, Title Research and Due Diligence, and Eminent Domain Assistance.

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Insignia has been providing environmental consulting services for the energy sector for the past 12 years. Insignia's staff has prepared more than 20 Proponent's Environmental Assessments (PEAs) for over 500 miles of infrastructure throughout California to support California Public Utilities Commission (Commission) Permits to Construct (PTC) and Certificates of Public Convenience and Necessity (CPCN). Insignia's staff has worked on the few natural gas pipelines that had PEAs submitted to the Commission in the past 15 years, including Sacramento Natural Gas Storage, LLC's Sacramento Natural Gas Storage Project, Wild Goose Storage, Inc.'s Wild Goose Gas Storage Expansion Project, and Pacific Gas Transmission Company's Natural Gas Transmission Project. In addition, Insignia has assisted in routing, permitting, and environmental inspection for thousands of miles of natural gas transmission projects across the United States.

- b. SDG&E and SoCalGas object to Question 1(b) on the grounds that it is vague, ambiguous and seeks information not relevant to this proceeding. Subject to and without waiving their objections, SDG&E and SoCalGas respond as follows.

SDG&E and SoCalGas have used many different subject matter experts and contingency methodologies to develop cost contingency on a multitude of projects ranging in size, scope and complexities and at differing classes of estimates. Projects in urban environment will have a different contingency factor than projects in rural area due to but not limited to paved surfaces, traffic control, crossings, work hours, environmental considerations and permit conditions. The subject matter experts identified in 1a. above have been utilized by SDG&E and SoCalGas in the past.¹

- c. Cost contingency is not tracked for projects managed by SDG&E and SoCalGas.
- d. PMBOK sections 7.2.2.6, 7.2.3.1, and 7.3.3.1 were used to validate the methodologies used to estimate contingency in the Proposed Project and the Hydrotest alternative (Alternative B). The guidelines were not used at a project component level.
- e. The information requested is copyright protected. SDG&E and SoCalGas have requested permission from PMI to provide electronic copies of the above described guidance from PMBOK in section, 7.2.2.6 Reserve Analysis, sections 7.2.3.1 Activity Cost Estimates, and 7.3.3.1 Cost Baseline.

¹ Examples of projects include: For ARB- SDG&E's Line 3600 36-inch diameter natural gas transmission project and PSEP. For Insignia L-6914 Imperial Valley Loop, L-3000 In-line Inspection Project, SDG&E East County Substation, and SDG&E Otay Mesa Power Purchase Agreement Transmission Project, for PwC- Pipeline Safety Enhancement Project (PSEP) and Aliso Canyon Turbine Replacement project. For Spec Services- Mountain View Project or L-6906 Installation, and L-2000/2001 and 5000 Replacement Study. For CLR- SDG&E PSEP and Fire Risk Mitigation Project.

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QUESTION 2:

Section 7.0 Contingency at p.27 of Mr. Navin’s testimony states that “Contingencies were assigned to account for uncertainty and variability associated with the cost estimate and unforeseeable elements of cost within the defined project scope. Risks specific to the Pipeline Safety & Reliability Project costs were contemplated when determining a reasonable contingency to include in the cost estimate. The tables in this section document some of these risks.” On the same p.7, Sempra provided general criteria for the contingencies assigned to each detailed line-item component. As indicated, 0-5% contingency is assigned where there is relatively less uncertainty associated with the component, with fewer issues expected to arise, and scope and cost estimates are more fully developed; 5-15% contingency is assigned where there is moderate uncertainty associated with the component, and 15-30% contingency where there is significant uncertainty associated with the component. For those pipeline components with contingencies greater than 15%, Sempra provided additional detail on p.28 where the contingency rationale for each cost element pertaining to the following were listed: (1) Construction Labor & Engineering; (2) Right of Way; and (3) Environmental/Permitting. As stated, each of the rationale listed on p.28 for these cost elements starts with either the word “uncertainty” or “unknown.” In addition for purposes of the question herein, ORA notes that Attachment VIII of Attachment A PSRP Report provides the Project Schedule showing 14 Project Tasks. Notably, the two Project Tasks, one relating to “Final Pipeline Engineering/Design/Support” and the other to “Regulatory Proceeding (CPUC)” are assumed to be completed by the end of Q3 of year 2017. Moreover, for purposes of the question herein, ORA notes that Sempra’s Monthly PSEP status reports uses the following definition of a pipe project’s life cycle provided in a footnote to the reports. “Stage Categories: - These categories represent seven stages of a pipe project’s lifecycle. Stage 1 Project Initiation, Stage 2 Selection, Stage 3 Project Definition, Stage 4 Detailed Design/Procurement, Stage 5 Construction, Stage 6 Startup/ Turn-over, and Stage 7 Close-out.”

(a) Please provide a definition of the phrase “within the defined project scope” as used in the above statement.

(b) For purposes of the Proposed Project, please provide the Proposed Project’s lifecycle and state whether it would be the different or similar to the seven stages described in the above from Sempra’s Monthly PSEP status reports. If different, then please identify the differences and explain the reason for the differences between the Proposed Project and one under taken in the PSEP.

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- (c) Please identify at which point and which of the seven stages of the Proposed Project's lifecycle can the project scope be determined to be "defined" such that it is possible to establish the costs "within the defined project scope." Please explain.
- (d) Please explain whether the project scope can be "defined" by the time the two Project Tasks described Attachment VIII in the above Question 2 are attained.
- (e) Please clarify that as used by Sempra in the above statement, contingencies to account for "uncertainty" are distinct from those to account for "variability" associated with the cost estimate and un-foreseeable elements of cost. Please explain your response.
- (f) As noted above for pipeline components with contingencies greater than 15%, each of the rationale listed on p.28 for the cost elements described starts with either the word "uncertainty" or "unknown." Is it fair to assume that for all pipeline components with contingencies greater than 15%, the contingencies assigned account only for "uncertainty" associated with the cost estimate? Please respond with a yes or no, and then explain your response.
- (g) Given that none of the rationale described appear to account for "variability" in these cost elements, is it fair to assume that for all pipeline components with contingencies greater than 15%, the contingencies assigned do not account for "variability" and are not subject to a risk that relates to "variability". Please respond with a yes or no, and then explain your response.
- (h) As described above, the general criteria for the contingencies assigned to each detailed line-item component appear to have overlaps in the range where a 5% contingency could either be assigned where there is less uncertainty or moderate uncertainty associated with the component. In addition, a 15% contingency could be assigned either where there is moderate uncertainty or significant uncertainty associated with the component. Please explain how Sempra would draw the line on the assigned contingency percentage based on the general criteria described.
- (i) Please describe at what point in the project life cycle could the assigned contingency to account for each of the cost components' "uncertainty" be reduced from a "significant uncertainty" to a "less uncertainty."

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RESPONSE 2:

SDG&E and SoCalGas object to this data request on the grounds that it is vague, ambiguous, calls for speculation and appears to assume facts that are not supported by Commission practice. The Commission has not yet approved the Proposed Project or any alternative thereto. Through the CEQA process, the Commission will identify potentially feasible alternatives to the Proposed Project and the “environmentally superior” alternative(s). Assuming this proceeding is consistent with past Commission practice, Applicants (and other parties) will then submit testimony regarding the feasibility, as defined under CEQA, and estimated costs of some or all of such alternatives. Based on the evidentiary record, the Commission will then determine whether to approve the Proposed Project or an alternative. Subject to and without waiving their objections, SDG&E and SoCalGas respond as follows.

- a. The Proposed Project scope is defined in the Prepared Direct Testimony of Neil Navin (March 21, 2016) at pages 5-16. Any work scope included in the definition in Mr. Navin’s testimony is defined as “within the defined project scope.”
- b. The chart below overlays the Pipeline Safety and Enhancement Plan (PSEP) seven stage categories on the PSRP project schedule. The life cycle is similar, however, PSRP does not follow the formal PSEP seven stage process, given the separate permitting process underway, which includes CEQA/NEPA review.

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Project Tasks	2014				2015				2016				2017				2018				2019				2020				2021				2022	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2				
Preliminary Pipeline Engineering/Design																																		
Pipeline Base Mapping																																		
Detail Design Drawings																																		
Final Pipeline Engineering/Design/Support																																		
Regulatory Proceeding (CPUC)																																		
Proponent's Environmental Studies/Survey																																		
CEQA/NEPA Process - (Note 1)																																		
Ministerial Permitting																																		
Notice to Proceed Construction																																		
Pipeline Material Procurement																																		
Land and Right of Way Acquisition																																		
Pipeline and PLS Construction																																		
Line 1600 De-Rate, Construction																																		
Project Closeout																																		

Notes:
1. Does not include pre-filing consultation. With pre-filing consultation, formal regulatory and CEQA/NEPA proceedings are assumed to take 2 years from the date of Application to complete.

Stage 1 (S1) – Initiation
Stage 2 (S2) – Selection
Stage 3 (S3) – Definition
Stage 4 (S4) – Detailed Design and Procurement
Stage 5 (S5) – Construction
Stage 6 (S6) – Start up
Stage 7 (S7) – Closeout

- c. For PSEP projects, the project scope can be determined to be “defined” in Stage 3. As noted in the response to 2(b) above, the Proposed Project does not follow the PSEP seven stage process. For the Proposed Project, the clear framework of the project scope and associated costs will be determined at the conclusion of the CEQA and regulatory process. It should be noted that the framework will not be completely filled out for detailed scope elements and higher certainty cost information until final engineering, municipal permitting, land acquisition and procurement are complete.
- d. SDG&E and SoCalGas object to Question 2(d) on the grounds that it is vague and ambiguous and calls for speculation. Subject to and without waiving their objections, SDG&E and SoCalGas respond as follows. See response to 2(a) and 2(c) above.
- e. The terms “uncertainty” and “variability” were used as recommended by AACE as part of the definition of contingency set forth in the Prepared Direct Testimony of Neil Navin at page 22, footnote 17.

SDG&E and SoCalGas use “uncertainty” to addresses issues or events that are unknown or not predictable. SDG&E and SoCalGas use “variability” to addresses complexity of the cost

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estimate component, availability of cost data, and the maturity level of the estimate input information (deliverables).

- f. No. The contingencies of 15% or more account are **primarily** driven by “uncertainty” and do include a variability component.
- g. No. See responses 2.e and 2.f above.
- h. SDG&E and SoCalGas determine the assigned contingency based on the nature of the activity, uncertainty/variability and their professional judgment.
- i. SDG&E and SoCalGas object to this data request on the grounds that it is vague, ambiguous, calls for speculation and appears to assume facts that are not supported by Commission practice. The Commission has not yet approved the Proposed Project or any alternative thereto. Through the CEQA process, the Commission will identify potentially feasible alternatives to the Proposed Project and the “environmentally superior” alternative(s). Assuming this proceeding is consistent with past Commission practice, Applicants (and other parties) will then submit testimony regarding the feasibility, as defined under CEQA, and estimated costs with updated contingencies of some or all of such alternatives. Based on the evidentiary record, the Commission will then determine whether to approve the Proposed Project or an alternative. Subject to and without waiving their objections, SDG&E and SoCalGas respond as follows.

The point in the project life cycle when the assigned contingency to account for each of the cost components’ “uncertainty” could be reduced from a “significant uncertainty” to a “less uncertainty” would occur when the environmental and regulatory review has been completed resulting in the final project scope and cost estimate update, signed contracts with vendors on material and construction costs and completion of right-of-way acquisition.

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QUESTION 3:

Table 6 of Mr. Navin's testimony on p.25 shows contingency costs for Line 3602 in both % and dollar amounts for materials, construction, engineering & design, environmental, company labor, and other project execution activities. On the same page, Table 7 of Mr. Navin's testimony shows contingency costs for Line 1600 de-rate in both % and dollar amounts for the same project components. Section 7.0 Contingency at p.29 further states "It should be noted that there are certain project risks outside of the defined project scope that are excluded from the cost estimate and contingency for the following categories:" The discussion at p.29 lists the five bullet headings below:

- Financial/Escalation
- Regulatory/Environmental/Permitting/Public Relations
- Land Acquisition
- Engineering and Design
- Construction

In addition at p.29, under the bullet heading **Financial/Escalation**, Section 7.0 Contingency states "If costs for skilled labor and qualified resources (e.g., engineers, contractors, construction workers, and specialty consultants), materials, or other commodities increase significantly over the project duration."

Further at p.29, under the bullet heading **Regulatory/Environmental/Permitting/Outreach**, Section 7.0 Contingency lists the five bullet points below:

- Significant changes to the project scope, including mitigation measures, as a result of the environmental and/or regulatory review of the project.
- Significant delays in the project schedule as a result of the environmental and/or regulatory review, local community intervention, natural disaster, labor strike, etc.
- Significant work stoppages due to local agency/concerned citizen's actions (e.g. work impacting road that's been designated as a fire escape route).
- Changes to laws or regulations that would significantly impact project scope or schedule.
- Regulatory restrictions and other issues related to water demands and usage.

Under the heading **Land Acquisition**, there is only one bullet point which states "Difficulty in acquiring property."

Also at the bottom of p.29, under the heading **Engineering and Design**, there is only one bullet point which states "Significant review of alternatives and level of detail."

Section 7.0 Contingency is continued on p.30 and lists under the heading **Construction**, the five bullet points, namely:

- Unavailability of skilled labor and equipment.
- Unfavorable working conditions due to severe weather conditions.

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- Extraordinary permitting restrictions that impact productivity.
- Earthquakes, fires, natural disasters, strikes or other force majeure type events.
- Significant site environmental issues. Examples could include agency ratios varying from assumptions, groundwater, and the identification of significant hazardous materials.

Finally, Section 7.0 Contingency ends with the statement “Geotechnical issues varying significantly from that assumed in this report.”

(a) Please provide a definition of “outside of the defined project scope” as used in the above statement.

(b) Would any increases to costs that are higher than anticipated as shown in Tables 6 and 7 be automatically considered as being “outside the defined project scope”? Please respond with a yes or no, and then explain your answer.

(c) Given the broad range of the possible changes described above that are assumed to be “outside the defined project scope,” should the Commission be concerned about the Proposed Project having no project cost cap? To the best of the Applicants’ knowledge, if a cost cap were to be established, what should the cap be?

(d) Consider a hypothetical scenario where there is a change in the project scope after completion of a report that is a part of the Commission’s review process. Assume for this hypothetical scenario a change in the Proposed Project’s route due to safety concerns and that the new route is one of the identified alternative routes. Please explain what would constitute “Significant changes to the project scope” in this scenario that could be described as being “outside of the defined project scope”.

(e) Consider a hypothetical scenario where there are material prices for pipe are stable and the recent lower oil and gas prices in the market prevail over the project duration. Under this hypothetical scenario, there is also abundant skilled labor because reduced drilling and production activities in oil and gas results in less competition for skilled pipeline and construction labor. Under this hypothetical scenario, both material and labor cost stays under the anticipated cost as shown in Tables 6 and 7. Please explain how any excess provisions for material and labor cost contingencies could be identified and tracked and accounted for as part of the Proposed Project.

(f) Please explain what is assumed to be “Significant delays in the project schedule as a result of the environmental and/or regulatory review, local community intervention, natural disaster, labor strike, etc” as described in the above under the heading **Regulatory/Environmental/Permitting/Outreach.**

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(g) Please explain what is considered as “Difficulty in acquiring property” as described above under **Land Acquisition** and clarify what is meant by “difficulty” as used in this context.

(h) Please explain what is considered as “Significant review of alternatives and level of detail” as described above under **Engineering and Design** and clarify what is meant by “significant review” as used in this context.

(i) Please identify the “geotechnical issues” as that term is used herein and describe the situations where the “Geotechnical issues” could “vary significantly from that assumed in this report.” Please cite references to Mr. Navin’s testimony where there is a discussion of the “Geotechnical issues” assumed in this report.

RESPONSE 3:

- a. The Proposed Project scope is defined in the Prepared Direct Testimony of Neil Navin (March 21, 2016) at pages 5-16. Any work scope not included in the definition in Mr. Navin’s testimony is defined as “outside of the defined project scope.”
- b. Yes. Cost increases due to changes in the project scope as defined in Mr. Navin’s testimony would be considered as being “outside the defined project scope.”
- c. SDG&E and SoCalGas object to this data request on the grounds that it is vague, ambiguous, calls for speculation and appears to assume facts that are not supported by Commission practice. The Commission has not yet approved the Proposed Project or any alternative thereto. Through the CEQA process, the Commission will identify potentially feasible alternatives to the Proposed Project and the “environmentally superior” alternative(s). Assuming this proceeding is consistent with past Commission practice, Applicants (and other parties) will then submit testimony regarding the feasibility, as defined under CEQA, and estimated costs of some or all of such alternatives. Based on the evidentiary record, the Commission will then determine whether to approve the Proposed Project or an alternative. Pursuant to California Public Utilities Code Section 1005.5, the Commission may determine “a maximum cost determined to be reasonable and prudent for the facility” it approves. Until alternatives to the Proposed Project are identified through the CEQA review process, this Data Request’s reference to hypothetical alternatives, or a cost cap for such hypothetical alternatives, is vague, ambiguous and calls for speculation.
- d. See Objection to Response 3.c
- e. See Objection to Response 3.c
- f. SDG&E and SoCalGas object to this data request on that grounds that it calls for speculation. The Commission has not yet approved the Proposed Project or any alternative

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thereto. Through the CEQA process, the Commission will identify potentially feasible alternatives to the Proposed Project and the “environmentally superior” alternative(s). SDG&E and SoCalGas cannot predict the scope and extent of project delays that may be caused by environmental and regulatory review, and therefore cannot enumerate those that would be significant from those that would not. Notwithstanding, as previously explained, delays in this category could be due to, but not limited to, natural disasters, local community intervention, labor strikes and environmental and regulatory reviews.

- g. SDG&E and SoCalGas object to this data request on the grounds that it calls for speculation. The Commission has not yet approved the Proposed Project or any alternative thereto. Through the CEQA process, the Commission will identify potentially feasible alternatives to the Proposed Project and the “environmentally superior” alternative(s). Due to route uncertainty, SDG&E and SoCalGas cannot predict the scope and extent of the difficulties that may arise in the course of acquiring land necessary for the proposed project and therefore cannot enumerate those. Notwithstanding, extensive and drawn-out negotiation and/or litigation associated with land rights acquisition is one example of “difficulty in acquiring property.”
- h. SDG&E and SoCalGas object to this data request on that grounds that it calls for speculation. The Commission has not yet approved the Proposed Project or any alternative thereto. Through the CEQA process, the Commission will identify potentially feasible alternatives to the Proposed Project and the “environmentally superior” alternative(s). SDG&E and SoCalGas cannot predict the alternatives that will be identified by the Commission, nor the scope and extent of impacts on engineering and design required by the review of those alternatives, and therefore cannot enumerate those that would be significant from those that would not.
- i. SDG&E and SoCalGas object to this data request on that grounds that it calls for speculation. The Commission has not yet approved the Proposed Project or any alternative thereto. Through the CEQA process, the Commission will identify potentially feasible alternatives to the Proposed Project and the “environmentally superior” alternative(s). Due to route uncertainty, SDG&E and SoCalGas cannot predict the scope and extent of impacts on geotechnical investigation caused by environmental and regulatory review, and therefore cannot enumerate those that would be significant from those that would not.

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QUESTION 4:

At line 17 on p.21 of Mr. Navin's testimony, the Applicants state "The total direct costs to de-rate Line 1600 are estimated to be approximately \$15.1 million." Footnote 16 at the end of the sentence states "The direct cost estimate for de-rating Line 1600 includes \$2.3 million associated with removing existing assets. As explained in the Prepared Direct Testimony of Michael Woodruff, dated March 21, 2016, these costs are excluded from the revenue requirement requested for recovery in this application as the costs associated with removing existing assets is recovered through the revenue requirement associated with the original asset." Table 5 on p.22 shows Total estimated capital direct costs for the de-rate of Line 1600 in the amount of \$15.1 million with a breakdown by cost component for material, construction, engineering & design, environmental, company labor, and other project execution activities.

(a) Please identify the relevant project component/s where the amount of \$2.3 million associated with removing existing assets is included as part of the \$15.1 million.

(b) Please explain how Sempra ensures that the \$2.3 million associated with removing existing assets that were included in the \$15.1 million direct cost of Line 1600 de-rate are excluded from the revenue requirement requested for recovery in this application. Please cite specific references to Mr. Woodruff's Direct Testimony explaining how these costs were to be excluded from revenue requirement recovery in this application.

RESPONSE 4:

- a. The \$2.3 million cost associated with removing existing assets is included in Materials, Construction, Engineering & Design/Survey, Environmental Review & Permits, Company Labor, and Other Project Execution Activities categories identified in Table 5 on page 22 of Neil Navin's testimony.
- b. SDG&E and SoCalGas follow the Federal Energy Regulatory Commission (FERC) Uniform System of Accounts in its accounting treatment of cost of removal. While it is captured as a direct cost of a project, it is charged to specific accounting documents (internal orders) and specifically excluded from the revenue requirement calculation of incremental projects.

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QUESTION 5:

At Table 2 on p.17 of Mr. Navin's testimony, it shows the estimated direct costs of the Proposed Project in the amount of \$441.9 million, including the Line 1600 de-rate. At line 18 on p.21 of Mr. Navin's testimony continued on the next page states "The estimate to de-rate Line 1600 was applied to each Alternative identified in the Ruling, except for the Hydrotest Alternative and the Replace Line 1600 in Place with a New 16-inch Transmission Pipeline Alternative, where the derate was not applicable." At p.32 Table 8 of CEA shows "Avoided Costs" in millions of 2015 dollars. The 3rd column of Table 8 has the heading "Fixed Cost", and shows the amount of \$441.9 million for Alternative A on the first line. The 4th column of Table 8 has the heading "Total O&M Cost", and shows the amount of \$4.6 million for Alternative A on the first line. Footnote 80 to the 4th column states "Present value of O&M and TIMP costs over 100 years. Also includes present value of gas transportation costs via Otay Mesa for Alternatives C1 and C2." The 5th column of Table 8 has the heading "Avoided Cost."

(a) Given that the amount of \$441.9 million for Alternative A on the first line of Table 8 of the CEA corresponds to the direct costs of the Proposed Project as shown in Table 2 on p.17, including the Line 1600 de-rate as described above, please confirm that the amounts shown in the succeeding lines in Table 8 in the 3rd column for the remaining alternatives (except as noted above for the hydrotest and replace in place) similarly represent the estimated direct costs of those remaining alternatives, including the Line 1600 de-rate. Please cite other references within the application or workpapers where the direct cost of the remaining alternatives as shown in Table 8 can be verified.

(b) Based on your response to item (a) above, please confirm whether the 4th column likewise includes the O&M cost estimate for the de-rate Line 1600 to distribution. Please identify the amount of the O&M cost for the de-rate Line 1600 to distribution included in the 4th column for each of the alternatives except as noted above for the hydrotest and replace in place.

(c) Based on your response to item (b) above, please confirm the amount of TIMP and DIMP (in the case of the de-rate Line 1600) that were included in the 4th column for each alternative shown in Table 8.

(d) Please provide the calculations corresponding to each of the amounts shown in the 5th column of Table 8 and cite reference to the workpapers where these specific calculations can be found.

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RESPONSE 5:

- a. See Neil Navin workpapers, Cost and Schedule Workpapers: PSRP Alternative Workpapers page 2.
- b. The 4th column does not include estimated O&M costs for the derated Line 1600. SDG&E does expect a change in O&M cost for Line 1600.
- c. The O&M cost estimate for Line 1600 derate does not include costs for TIMP or DIMP. Once derated to 320 psig, Line 1600 will no longer be managed under TIMP and will be managed under DIMP. The expectation is that SDG&E will continue with integrity inspections of Line 1600 in DIMP.
- d. See PSRP WPs - Cost Effectiveness Analysis: Application 15-09-013 Volume III Workpaper Avoided Cost Model Final.

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QUESTION 6:

In Response to ORA-17 Question 1(b) where ORA asks Sempra to provide a detailed explanation showing how the contingency percentages were derived, including any and all supporting workpapers and calculations relied on to obtain the contingency percentages show in Table 7 at p.25 of Mr. Navin's testimony, Sempra directed ORA to p.24 of Mr. Navin's testimony for a discussion of how contingency was calculated for Line 1600 de-rate. At p.24, Mr. Navin's testimony states "Even after accounting for the contingency in the direct cost estimates, there still may be variability in the overall cost of the project. The amount of expected variability is related to external, uncontrollable factors that impact skilled labor costs, material costs, etc." In addition, the testimony notes on the same page that "there are risks outside of the defined project scope that are excluded from the cost estimate and contingency." Footnote 20 provides examples of the risks described in the statement which are similar to those described in Question 3 above at pp.29-30 of Section 7.0 Contingency.

(a) Given the broad range of the possible changes described above that are assumed to be "outside the defined project scope," is it possible that the complete Line 1600 de-rate, as defined by SDG&E, really has no project cost cap? Please explain your response.

(b) To the best of the Applicants' knowledge, if a project cost cap were to be established, what should the cap be? Please explain the factors that justify this recommended cap.

RESPONSE 6:

SDG&E and SoCalGas object to this data request question on the grounds that it is vague, ambiguous, calls for speculation and appears to assume facts that are not supported by Commission practice. The Commission has not yet approved the Proposed Project or any alternative thereto. Through the CEQA process, the Commission will identify potentially feasible alternatives to the Proposed Project and the "environmentally superior" alternative(s). Assuming this proceeding is consistent with past Commission practice, Applicants (and other parties) will then submit testimony regarding the feasibility, as defined under CEQA, and estimated costs of some or all of such alternatives. Based on the evidentiary record, the Commission will then determine whether to approve the Proposed Project or an alternative. Pursuant to California Public Utilities Code Section 1005.5, the Commission may determine "a maximum cost determined to be reasonable and prudent for the facility" it approves. Until alternatives to the Proposed Project are identified through the CEQA review process, this Data Request's reference to hypothetical alternatives, or a cost cap for such hypothetical alternatives, is vague, ambiguous and calls for speculation.

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QUESTION 7:

In Response to ORA-17 Q.2(a), the Applicants state that “SDG&E and SoCalGas conducted comparisons of the Proposed project and alternatives with publicly available information along with comparison to SDG&E/SoCalGas PSEP information.” The Response to ORA-17 Q.2(a) provides only summary descriptions of the comparisons without any quantitative descriptions of the cost per mile comparisons undertaken. Please provide in table form the comparisons described in Response ORA-17 Q.2(a) to show the cost per mile as described in the response.

RESPONSE 7:

Project/Program Compared	Cost per Mile (\$ million)
SDG&E/SoCalGas PSRP- Line 3602	\$9.1
PG&E GT&S Application VPR: ≥ 24 Based on actuals from PG&E PSEP 24”-30” Highly Congested SF Peninsula / San Jose	\$13.2
SoCalGas/SDG&E North-South Project	\$7.6

Project/Program Compared	Cost per Mile (\$ million)
Alternative B: Line 1600 Hydrostatic Testing	\$2.5
Alternative B: Line 1600 Hydrostatic Testing: Less Customer impact mitigation costs ²	\$1.8
SCG/SDG&E PSEP System Average Cost to Hydrotest ³	\$1.7

² Customer impact mitigation costs removed are the cost to transport gas to Otay Mesa and installation of bypasses. Total amount for Hydrotesting Line 1600 less the impact mitigation costs is approximately \$81.5M.

³ Second Quarter 2015 PSEP Hydrotesting costs.

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Project/Program Compared	Cost per Mile (\$ million)
Alternative C1 (10")	\$6.0
PG&E GT&S Application VPR: >12 – Congested	\$5.8
Project/Program Compared	Cost per Mile (\$ million)
Alternative C2-C3 (12"/16")	\$6.0-\$6.8
PG&E GT&S Application VPR: 12-16 – Congested Sacramento Based on actuals from PG&E PSEP	\$5.8
Alternative C5-C7: 24"/30"/42")	\$7.4-\$10.9
PG&E GT&S Application VPR: ≥ 24" Based on actuals from PG&E PSEP 24"-30" Highly Congested SF Peninsula / San Jose	\$13.2

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QUESTION 8:

In Response to ORA-17 Q.3, the Applicants provide the estimated PSRP Project Annual Direct Capital Expenditures excluding contingency for both Line 3602 and the Line 1600 de-rate, showing the direct capital costs each year from 2014 through 2022, and the total cost for the period. The total for Line 3602 is shown as \$382.4 million while the total for Line 1600 de-rate is shown as \$12.7 million, for a combined total direct capital cost of \$395.1 million for both projects taken together. Resolution No.SED-1 dated July 19, 2016 directs SDG&E to do four things, including: reducing pressure on Line 1600, performing In-Line Inspections of Line 1600, replacing segment on Line 1600 from the specified Engineering Stations, and performing quarterly instrumented leak surveys on the entirety of Line 1600.

- a) Please explain how each of the four requirements in Resolution No.SED-1 described above could impact the Line 1600 de-rate costs, if any, compared to those provided in Response to ORA-17 Q.3. If no impact on the cost of Line 1600 de-rate is expected from this Resolution, then please so state and explain the reason for this.
- b) If an impact on cost of Line 1600 de-rate is expected from this Resolution, please so state and explain the reason for this.
- c) Based on your response to item (b) above, please state whether it is possible to estimate the cost of the likely impact of the Resolution, and if so, provide an estimate.

RESPONSE 8:

- a. None of the four requirements will impact the Line 1600 de-rate costs. The actions required to comply with Draft Resolution No. SED-1 dated July 19, 2016 are independent of those associated with derating Line 1600 to 320 psig as proposed in the PSRP application and therefore have no impact on PSRP costs.
- b. N/A
- c. N/A