

INDICATED SHIPPER DATA REQUEST

IS-SCG-007

SOCALGAS 2019 GRC – A.17-10-008

SOCALGAS RESPONSE

DATE RECEIVED: MARCH 23, 2018

DATE RESPONDED: APRIL 6, 2018

7-1. Please refer to the Direct Testimony of Richard Phillips at page 14.

a. Regarding the decision that 8 miles or less was the appropriate interval to install Automatic Shutoff Valve(ASV)/Remote Control Valve (RCV) on pipelines greater than 20 inch diameter and pipelines 12 inches or greater that operate at a Hoop Stress greater than 30% of SMYS.

i. How did SoCalGas determine that this was the appropriate interval for valve placement? Please provide all workpapers in support of this determination.

ii. Is the decision based on the interval that provides maximum protection against risk? If yes, please provide all workpapers and quantifications underlying this determination.

iii. Is the decision based on the interval that provides the greatest risk reduction for dollars spent? If yes, please provide all workpapers and quantifications underlying this determination.

iv. Is the 8 mile interval mandated by CPUC decision, CPUC order, state regulation or federal regulation? If so, please provide a citation to the relevant regulation or decision.

v. Can a larger interval be utilized? Please fully explain the response.

b. Please explain how SoCalGas determined that the Valve Enhancement Plan must be completed by 2021. Please provide any workpapers supporting this decision.

c. Can the timeline of the Valve Enhancement Plan be extended beyond 2021 shifting recovery of some costs to a future GRC? Please provide a detailed narrative explaining the response.

d. Please provide the Risk Reduction, Risk Spend Efficiency and Risk Mitigated to Cost Ratio (as they are defined by the 2016 RAMP Report) associated with this project if the timeframe over which valve enhancement projects occurred were substituted as follows:

i. For the 2019 GRC, the first third or 95 projects are completed,

ii. For the next GRC (2022 or 2023), an additional 95 projects are completed,

iii. For the following GRC (2026 or 2027), the final 94 Valve Enhancement projects are completed concluding the VEP program and achieving the 8 mile interval.

This request is for the RAMP scoring metrics on the assumption that the Valve Enhancement Plan was spread over three general rate cases, rather than completed during the 2019 GRC cycle.

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SoCalGas Responses 7-1:

7-1.ai-v. Please see the record of R.11-02-019 and A.11-02-002, wherein SoCalGas and SDG&E submitted the proposed Valve Enhancement Plan, which was ultimately approved by the Commission in D.14-06-007. The record includes written testimony, workpapers, a report by the Consumer Safety Protection Division (CPSD) of the California Public Utilities Commission, comments on the CPSD Report, oral testimony at hearings and written briefs.

7-1.b. SoCalGas objects to “explain how SoCalGas determined that the Valve Enhancement Plan must be completed by 2021,” on the grounds that it lacks foundation and is misleading. Subject to and without waiving the foregoing objection, SoCalGas responds as follows:

Execution of the Valve Enhancement Plan began in 2012 and is anticipated to be complete in 2021. This schedule is consistent with the Commission requirement set forth in D.11-06-017 on page 19 that PSEP be completed “as soon as practicable,” the requirement in Public Utilities Code section 957 that “[t]he commission shall additionally establish action timelines, adopt standards for how to prioritize installation of automatic shutoff or remote controlled sectionalized block valves pursuant to paragraph (1), ensure that remote and automatic shutoff valves are installed as quickly as is reasonably possible,” and the directive in the Natural Gas Pipeline Safety Act of 2011 that the plan “shall include a timeline for completion that is as soon as practicable” (Pub. Util. Code § 958).

7-1.c. SoCalGas objects to this request as it calls for a legal conclusion. As explained in Response 7-1.b., state law requires that SoCalGas install the valves “as quickly as reasonably possible.” Delaying installation of the valves without any asserted justification for doing so, as apparently proposed in this data request, does not appear consistent with these State statutory and regulatory directives.

7-1.di.-diii SoCalGas objects to this request as out of scope. Subject to and without waiving the foregoing objection, SoCalGas responds as follows:

As explained in SoCalGas’ response to IS-SCG-003 Question 3-5 subpart s, Risk Reduction, Risk Spend Efficiency and Risk Mitigated to Cost Ratio calculations were not presented in the TY 2019 GRC.

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7-2. Please provide all workpapers from the 2016 RAMP Report associated with the Valve Enhancement Plan part of PSEP.

SoCalGas Responses 7-2:

Workpapers associated with SoCalGas and SDG&E's RAMP Report can be accessed using the following steps: Visit the RAMP proceeding on SDG&E's website: <https://www.sdge.com/regulatory-filing/20016/risk-assessment-and-mitigation-phase-report-sdge-socalgas>.

- Click on "Discovery."
- Click on "CUE."
- The risk reduction workpapers are shown as "CUE DR-01 RAMP RSE Workpapers." The cost-related workpapers are labeled as "CUE DR-01 Cost Workpapers."

In addition, as stated in the Direct Testimony of RAMP to GRC Integration witness Jamie York (Exhibit SCG-02-R/SDGE-02-R, Chapter 3), "much information from the RAMP Report was transcribed and is shown in the GRC witness' workpapers to provide context as well as a comparison reference to the RAMP Report itself.

Such information includes the RAMP risk the particular activity was associated with, the name of the mitigation as presented in the RAMP Report, the estimated range of costs put forth in the RAMP for the mitigation activity, the funding source (i.e., CPUC-GRC, FERC), the work type (e.g., mandated) and citation (e.g., General Order 165), and the 2016 embedded historical cost estimate." (Exhibit SCG-02-R/SDGE-02-R, Chapter 3 at p. JKY-7 lines 3-10.)

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7-3. Please identify the exact locations in the 2016 RAMP Report that discusses the Valve Enhancement Plan part of PSEP

SoCalGas Responses 7-3:

As mentioned in the RAMP Report Chapter A at p. SDGE/SCG A-2, “The purpose of RAMP is not to request funding. Any funding requests will be made in the GRC. RAMP mitigation forecasts are providing only to estimate a range that will be refined with supporting testimony in the GRC.” Accordingly, the project assumptions and estimated costs put forth in the RAMP Report were superseded by the requests made in supporting testimony in the Test Year 2019 GRC. For the locations of the requested projects in the RAMP Report, please refer to the response to part 7-2 above.

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7-4. Please provide the Risk Reduction, Risk Spend Efficiency and Risk Mitigated to Cost Ratio (as they are defined by the 2016 RAMP Report) associated with the Valve Enhancement Plan portion of PSEP. Additionally, explain how the scores in these metrics led SoCalGas to the decision that the 2019 GRC was the appropriate time to propose the Valve Enhancement Plan.

SoCalGas Responses 7-4:

SoCalGas and SDG&E object to this request on the ground that it seeks information that is beyond the scope of permissible discovery contemplated by Rule 10.1 of the Rules of Practice and Procedure of the California Public Utilities Commission. Subject to and without waiving the foregoing objection, SoCalGas and SDG&E responds as follows:

Risk Reduction, Risk Spend Efficiency and Risk Mitigated to Cost Ratio calculations were not presented in the TY 2019 GRC. This approach is consistent with guidance stemming from the RAMP proceeding, as shown in the Revised Direct Testimony of Diana Day (Exhibit SCG-02-R/SDG&E-02-R, Chapter 1): “Through the SED Evaluation Report and comments submitted in response to both the SED Evaluation Report and the Companies’ RAMP Report, stakeholders agreed that the RSEs are evolving, should be further refined in the S-MAP, and have limited usefulness in their current state.” (Exhibit SCG-02-R/SDG&E-02-R, Chapter 1 at p. DD-17 lines 18-21.) SoCalGas and SDG&E’s comments in the RAMP proceeding stated “the Utilities do not plan to include their nascent RSE calculations in the upcoming TY 2019 GRC. However, the Utilities will work with the parties and the Commission in the S-MAP proceeding toward furthering development of a more useful effectiveness metric in the next RAMP.” (I.16-10-015/I.16-10-016. SoCalGas and SDG&E Opening Comments (April 24, 2017), at 4-5; and SoCalGas and SDG&E Reply Comments (May 9, 2017), at 6-8.) Please see the Revised Direct Testimony of Diana Day (Exhibit SCG-02-R/SDG&E-02-R, Chapter 1) and the Direct Testimony of Jamie York (Exhibit SCG-02-R/SDG&E-02-R, Chapter 3) for more information regarding the Commission’s guidance in presenting the first-ever risk-informed GRC.

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7-5. Were each of the 284 Valve projects separately scored for Risk Reduction, Risk Spend Efficiency and Risk Mitigated to Cost Ratio (as they are defined by the 2016 RAMP report) or was the entire Valve Enhancement Plan scored as a single risk reducing project? Please explain and provide all supporting documentation.

SoCalGas Responses 7-5:

As described in the RAMP Report, SoCalGas “‘grouped’ the proposed mitigations in one of three ways in order to determine the risk reduction: (1) Use the same groupings as shown in the Proposed Risk Mitigation Plan; (2) Group the mitigations by current controls or future mitigations, and similarities in potential drivers, potential consequences, assets, or dependencies (e.g., purchase of software and training on the software); or (3) Analyze the proposed mitigations as one group (i.e., to cover a range of activities associated with the risk).” (RAMP Report, Risk Chapter SCG-4 High-Pressure Pipeline Failure at SCG 4-22.) For PSEP in particular, the calculation of risk reduction and risk spend efficiency in the RAMP Report was performed by grouping PSEP into one mitigation (*see* RAMP Report, Risk Chapter SCG-4 High-Pressure Pipeline Failure at SCG 4-23).

As explained in SoCalGas’ response to IS-SCG-003 Question 3-5 subpart s, Risk Reduction, Risk Spend Efficiency and Risk Mitigated to Cost Ratio calculations were not presented in the TY 2019 GRC. As such, risk reduction and risk spend efficiency calculations from the RAMP Report were not updated for SoCalGas’ PSEP-related requests in the TY 2019 GRC.

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7-6. Please provide the revenue requirement impact of each of the 284 Valve Enhancement projects for each year in the GRC cycle (2019, 2020, 2021, 2022) and all supporting documentation.

SoCalGas Responses 7-6:

SoCalGas does not forecast its revenue requirement for individual projects or work activities in the manner requested. PSEP capital expenditures for Valve Enhancement projects forecasted to be in service by TY 2019 were an input to the overall forecasted TY 2019 SoCalGas revenue requirement.

Beyond 2019, an attrition mechanism is established to escalate revenue requirement throughout the post-test years until a new rate case can be filed and approved. In the case of PSEP, a specific revenue requirement “adder” was included in the Post-Test Year request for the entirety of the PSEP capital forecasts projected to be in-service in the post-test years. Revenue requirement was not forecasted on a PSEP project by project basis. Please see the Direct testimony of Jawaad Malik (Exhibit SCG-44) beginning on page JAM-9 for Post-Test Year Ratemaking. Details for PSEP for 2020-2022 can be found in the PSEP workpapers of Jawaad Malik (Exhibit SCG-44-WP) starting on page SCG-44 WP JAM PSEP-1.

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Question 7-7 (a): Please refer to the supplemental workpaper of Richard Philips, Exhibit No. SCG-15-WPS, specifically referring to the section on the Valve Enhancement Plan Workpaper.

a. Please explain how the Focus on Reasonable Rates and Continuous Improvement, as described on page 4 of the Application and page 3 of the Direct Testimony of Bret Lane, was considered for this project.

SoCalGas Responses 7-7 (a):

One of the primary objectives of PSEP, which includes the Valve Enhancement Plan, is to maximize the cost effectiveness of safety investments for the benefit of customers, as indicated on pages RDP-A-5, RDP-A-15, RDP-A-16, RDP-A-20, RDP-A-21 and RDP-57 of SCG-15. The forecasted costs of the Valve Enhancement Plan are based on SoCalGas' experience in the design, permitting, and construction of previously executed Valve Enhancement Plan projects and incorporate lessons learned since the plan commenced implementation in 2012.

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Question 7-7 (b): Please refer to the supplemental workpaper of Richard Philips, Exhibit No. SCG-15-WPS, specifically referring to the section on the Valve Enhancement Plan Workpaper.

b. Please provide Table 1 in electronic spreadsheet format, preferably Microsoft Excel

SoCalGas Responses 7-7 (b):

The attached documents include Confidential and Protected Materials pursuant to PUC Section 583, GO 66-D, and D.17-09-023. As provided in response to IS DR003 Q3.5d, see tab: “SCG GRC FINAL VALVE LIST” in the attached spreadsheet.

“IS DR-07 Q07b CONFIDENTIAL Valve GRC 2017 Final List w Estimates_redacted (3-21-18)”

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Question 7-7 (c): Please refer to the supplemental workpaper of Richard Philips, Exhibit No. SCG-15-WPS, specifically referring to the section on the Valve Enhancement Plan Workpaper.

c. For each of the projects listed in Table 1, please identify the Class and Category (as defined in the Workpaper Glossary). Providing this information in the same spreadsheet as provided in part b. is acceptable and preferred.

SoCalGas Responses 7-7 (c):

SoCalGas objects to this request on the grounds that it seeks information that is beyond the scope of permissible discovery contemplated by Rule 10.1 of the Rules of Practice and Procedure of the California Public Utilities Commission and the likelihood that the information sought will lead to the discovery of admissible evidence is outweighed by the burden of identifying and categorizing each of the 284 valve locations, as this information is not easily extractable. Subject to and without waiving the foregoing objections, SoCalGas responds as follows:

As stated on page RDP-A-14 of Ex. SCG-15, the Valve Enhancement Plan enhances valve infrastructure to isolate transmission pipelines located in Class 3 and 4 locations and/or Class 1 and 2 High Consequence Areas. The valves themselves may or may not reside in the aforementioned locations. Rather, the valves are located in locations identified to isolate sections of pipe in the specified Class locations and/or High Consequence Areas. The Class location at the valves themselves are not relevant, and not criteria used by SoCalGas/SDG&E for determining if automation is appropriate.

The term “Category” is a pipeline attribute and is not applicable to valves.

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Question 7-7 (d): Please refer to the supplemental workpaper of Richard Philips, Exhibit No. SCG-15-WPS, specifically referring to the section on the Valve Enhancement Plan Workpaper.

d. Please provide the GIS data (a .gpd geodatabase or the individual .shp shape files will suffice as would .kmz or .kml files) associated with this project and used to display the Valve Enhancement Plan project locations.

SoCalGas Responses 7-7 (d):

The attached documents include Confidential and Protected Materials pursuant to PUC Section 583, GO 66-D, and D.17-09-023. See attached KMZ files.

“IS DR-07 Q07d CONFIDENTIAL Valve.kmz”

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Question 7-7 (e): Please refer to the supplemental workpaper of Richard Philips, Exhibit No. SCG-15-WPS, specifically referring to the section on the Valve Enhancement Plan Workpaper.

e. Please provide the number of buildings intended for human occupancy located within 300 feet of each valve project. Providing this information in the same spreadsheet as provided in part b. is acceptable and preferred.

SoCalGas Responses 7-7 (e):

SoCalGas objects to this request on the grounds that it seeks information that is beyond the scope of permissible discovery contemplated by Rule 10.1 of the Rules of Practice and Procedure of the California Public Utilities Commission and the likelihood that the information sought will lead to the discovery of admissible evidence is outweighed by the burden of identifying housing density at each of the 284 valve locations, as that information is not easily extractable. Subject to and without waiving the foregoing objections, SoCalGas responds as follows:

Housing density at the valve location is not criteria used by SoCalGas/SDG&E for determining if valve automation is appropriate. For additional details refer to the response to question 7-7 (c).

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Question 7-7 (f): Please refer to the supplemental workpaper of Richard Philips, Exhibit No. SCG-15-WPS, specifically referring to the section on the Valve Enhancement Plan Workpaper.

f. Please explain if population density is considered when determining whether or not to proceed with a Valve Enhancement Project and if so, how.

SoCalGas Responses 7-7 (f):

Population density was considered through the focus on pipelines located in Class 3 and 4 locations and Class 1 and 2 High Consequence Areas in the execution of the Valve Enhancement Plan. See the attached Decision Tree which depicts the evaluation process for the Valve Enhancement Plan.

“IS DR-07 Q07f Decision Tree_Evaluation Process for Transmission Pipe Valve Safety Opt.pdf”

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Question 7-7 (g): Please refer to the supplemental workpaper of Richard Philips, Exhibit No. SCG-15-WPS, specifically referring to the section on the Valve Enhancement Plan Workpaper.

g. Please provide Table 2 in electronic spreadsheet format, preferably Microsoft Excel.

SoCalGas Responses 7-7 (g):

See tab: “Cost Lookup Table” in the attached spreadsheet provided in IS DR-07 Q.7-7b.

“IS DR-07 Q07b CONFIDENTIAL Valve GRC 2017 Final List w Estimates_redacted (3-21-18)”

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Question 7-7 (h): Please refer to the supplemental workpaper of Richard Philips, Exhibit No. SCG-15-WPS, specifically referring to the section on the Valve Enhancement Plan Workpaper.

h. Pages 328 -330 of the workpaper refers to a “PSEP estimating Tool” that was used to generate cost estimates for each activity. Please provide this tool in its complete format, provide a detailed explanation of how it is used to determine cost estimates and please explain how it was used to develop the cost estimates presented in Table 2.

SoCalGas Responses 7-7 (h):

See attachment provided in IS DR-07 Q.7-7b.

“IS DR-07 Q07b CONFIDENTIAL Valve GRC 2017 Final List w Estimates_redacted (3-21-18)”

Detailed explanation of how this “PSEP estimating tool” was used:

- Previous project costs were gathered to provide the basis for the average unit cost per activity.
- Diameter and Installation Type are the variables considered. Project support activities such as engineering, project management, survey, etc. are estimated based on PSEP project actuals by utilizing percentages. The final outcome of these project average costs is a reference table located in the “Cost Lookup Table.” These costs are then utilized for each valve project in the “SCG GRC Final Valve List” to estimate the cost.

Example Project

Start: Open file “IS DR-07 Q07b CONFIDENTIAL Valve GRC 2017 Final List w Estimates_redacted (3-21-18)”

Worksheet tab: Go to “SCG GRC Final Valve List”

Project: Go to cell D4 you will find “85-61.72-New Location”

Installation Type: Go to cell E4 you will find “NV/AG” which means New Valve/Above Ground

Installation Code: Go to cell G5 you will find “6”

Company Labor: Go to cell “I4” which will include “\$146,959.44” that references “=VLOOKUP (\$E4,'Cost Lookup Table'!\$M\$2:\$W\$17,\$G4)”

Non-Labor: Go to cell “J4” which will include “\$1,639,008.49” that references “=K4-I4” (This cost is equal to the sum of “Material Cost” in cell M4, “Construction Cost” in cell N4, Environmental in cell O4, Land in cell P4, and Other Direct in cell Q4.)

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Question 7-7 (i): Please refer to the supplemental workpaper of Richard Philips, Exhibit No. SCG-15-WPS, specifically referring to the section on the Valve Enhancement Plan Workpaper.

i. Please provide a spreadsheet cost model that shows the build-up of the Project Cost totals shown on page 311 totaling \$246 million. This model should include a detailed breakdown of costs by Labor and Non-Labor for all of the identified cost categories (Material, Construction, Environmental/ Permitting/ Monitoring, Land & Right-of-Way Acquisition, Company Labor and Other Capital Costs). Please provide with all formulas and links intact.

SoCalGas Responses 7-7 (i):

See attachment provided in IS DR-07 Q.7-7b.

“IS DR-07 Q07b CONFIDENTIAL Valve GRC 2017 Final List w Estimates_redacted (3-21-18)”

The “spreadsheet cost model” has column “K” in the “SCG GRC FINAL VALVE LIST” worksheet. The total of column “K” labeled “Modification Cost” rounds up to the \$246 million dollars. Column “I” labeled “Company Labor” relates to the “Labor” cost in this question and “Non labor” in column “J” relates to “Non-Labor.”

All the formulae are included in the spreadsheet. Labor is a “Lookup Function” in excel that sources a table for Company Labor Costs.

Example Project:

Project name: “85-61.72-New Location”

Company Labor: Go to cell “I4” which will include “\$146,959.44” that references “=VLOOKUP(\$E4,'Cost Lookup Table'!\$M\$2:\$W\$17,\$G4)”

Non-Labor: Go to cell “J4” which will include “\$1,639,008.49” that references “=K4-I4” (This cost is equal to the sum of “Material Cost” in cell M4, “Construction Cost” in cell N4, Environmental in cell O4, Land in cell P4, and Other Direct in cell Q4.)

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Question 7-7 (j): Please refer to the supplemental workpaper of Richard Philips, Exhibit No. SCG-15-WPS, specifically referring to the section on the Valve Enhancement Plan Workpaper.

j. Tables 3-11 provide illustrative examples of the cost estimates for each of the project types.

i. Please provide these tables in electronic spread sheet format with all formulas and links intact, preferably Microsoft Excel.

ii. Please provide a similar table, in spread sheet format, for each of the pipe diameters included in Table 2 and not provided in Tables 3-11.

iii. If not explicitly detailed in spreadsheets provided for parts i. and ii., for each estimate/Table please provide the following detailed information regarding the units/hours required, per unit/hour costs, and support for each of those values which provide the support for the line item costs associated with the following cost line items:

1. Materials - Mechanical
2. Materials – Electrical
3. Materials – Civil
4. Mechanical Contractor
5. Electrical Contractor
6. Valve Contractor
7. Company Labor
8. Engineering
9. Environmental
10. Project Management
11. Survey
12. Construction Management
13. Land

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SoCalGas Responses 7-7 (j):

- i. See spreadsheet tabs: CP, AAG, AVT, AVAC, NVVT, COMM, BFP1, BFP2, and FM in the attachment provided in IS DR-07 Q.7-7b. ““IS DR-07 Q07b CONFIDENTIAL Valve GRC 2017 Final List w Estimates_redacted (3-21-18)”

- ii. As an illustrative example, see Worksheet tab “Estimated Numbers” for the cost. For example, a 20” New Valve/Vault Actuator (NV/VT) is located in column: D.
 - Materials-Mechanical is located in cell “D57” and “D58”
 - Materials-Electrical is located in cell “D56”
 - Materials-Civil is located in cell “D59”
 - Mechanical Contractor is located in cell “D8-D51”
 - Electrical Contractor is located in row “D53”
 - Valve Contractor is located in cell “D52”
 - Company Labor is located in cell “D60-D62” and “D66”
 - Engineering is located in cell “D64”
 - Environmental is located in cell “D63”
 - Project Management is located in cell “D65”
 - Survey is located in cell “D67”
 - Construction Management is located in cell “D68”
 - Land is located in cell “D69”

- iii. See response to Question 7-7 (ji and jii). Note that there are no man hours because this is a parametric type estimate.

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Question 7-7 (k): Please refer to the supplemental workpaper of Richard Philips, Exhibit No. SCG-15-WPS, specifically referring to the section on the Valve Enhancement Plan Workpaper.

k. Please provide all support for the percentage assumptions that are utilized to calculate the costs for Engineering (10%), Environmental (3%), Project Management (8%), Survey (5%), Land (5%), as well as the 2% project management portion of Company Labor.

SoCalGas Responses 7-7 (k):

The attached documents include Confidential and Protected Materials pursuant to PUC Section 583, GO 66-D, and D.17-09-023.

See attached file “IS DR-07 Q07k CONFIDENTIAL Cost Function Percent of Construction.”

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Question 7-7 (I): Please refer to the supplemental workpaper of Richard Philips, Exhibit No. SCG-15-WPS, specifically referring to the section on the Valve Enhancement Plan Workpaper.

1. Please explain how it was determined that the costs associated with Other Capital Costs are required, as the other cost components have assumptions identified that represent the same services: Engineering, Project Management, Construction Management, and Surveying. Please provide all supporting workpapers and documentation that were utilized to determine both the need and level of cost associated with each item included in Other Capital Costs.

SoCalGas Responses 7-7 (I):

It is typical on PSEP projects to have a project team comprised of both full-time Company employees and Contract employees. “Other Capital Costs” represents costs for contracted Purchased Services (i.e., contract employees hired to augment staffing of SoCalGas/SDG&E company employees.

Engineering and Project Management include activities that are captured in different areas of the estimates. Costs were determined based on an execution strategy, anticipated construction duration and planned activities. See attached estimate provided in response to Question 1b.

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Question 7-7 (m): Please refer to the supplemental workpaper of Richard Philips, Exhibit No. SCG-15-WPS, specifically referring to the section on the Valve Enhancement Plan Workpaper.

m. Please explain if there are any contingency adders included in these cost estimates. If so, please explain what contingencies are included, what cost components these contingencies are applied to and why it is required to inflate the cost estimates with contingency adders.

SoCalGas Responses 7-7 (m):

SoCalGas objects to the portion of the question that asks, “why it is required to inflate the cost estimates with contingency adders,” on the grounds that it lacks foundation and is misleading. The inclusion of contingency is standard in the industry to capture costs that, although not individually itemized, are reasonably anticipated to be incurred on construction projects. Subject to and without waiving the foregoing objection, SoCalGas responds as follows:

Yes, there are contingency adders included. The contingency categories are productivity, scope, pricing and duration. The following are the cost components within which contingencies are applied:

1. Materials - Mechanical
2. Materials – Electrical
3. Materials – Civil
4. Mechanical Contractor
5. Electrical Contractor
6. Valve Contractor
7. Company Labor
8. Engineering
9. Environmental
10. Project Management
11. Survey
12. Construction Management
13. Land

Contingency is a direct cost to the project and is anticipated to be spent over the course of engineering, design, procurement, and construction. Per the Association for the Advancement of Cost Engineering (AACEi), contingency is defined as:

An amount added to an estimate to allow for items, conditions, or events for which the state, occurrence, or effect is uncertain and that experience shows will likely result, in aggregate, in additional costs. Typically estimated using statistical analysis or judgment based on past asset or project experience. Contingency usually excludes: 1) Major scope changes such as changes in end product specification, capacities, building sizes, and location of the asset or project; 2) Extraordinary events such as major strikes and natural disasters; 3) Management reserves; and 4) Escalation and currency effects. Some of the items, conditions, or events for which the state, occurrence, and/or effect is uncertain include, but are not limited to, planning and estimating errors and omissions, minor price fluctuations (other than general escalation), design developments and changes within the scope, and variations in market and environmental conditions. Contingency is generally included in most estimates, and is expected to be expended.¹

¹ See AACEi Recommended Practice 10S-90, *Cost Engineering Terminology*, available for free to the general public at <https://web.aacei.org/docs/default-source/rps/10s-90.pdf?sfvrsn=18>.

INDICATED SHIPPER DATA REQUEST

IS-SCG-007

SOCALGAS 2019 GRC – A.17-10-008

SOCALGAS RESPONSE

DATE RECEIVED: MARCH 23, 2018

DATE RESPONDED: APRIL 6, 2018

Question 7-7 (n): Please refer to the supplemental workpaper of Richard Philips, Exhibit No. SCG-15-WPS, specifically referring to the section on the Valve Enhancement Plan Workpaper.

n. Please explain if there are any overhead or profit adders included in these cost estimates. If so, please explain what overhead is included, what cost components these adders are applied to and why it is required to inflate the cost estimates with overhead and profit adders.

SoCalGas Responses 7-7 (n):

SoCalGas objects to the portion of the question that asks, “why it is required to inflate the cost estimates with overhead and profit loaders,” on the grounds that it lacks foundation and is misleading. Subject to and without waiving the foregoing objection, SoCalGas responds as follows:

As shown in the capital workpapers, 2017-2019 capital expenditures depicted in witness testimony are presented as direct costs for labor and non-labor, and in the cases where standard escalation is not applicable, are classified as non-standard escalation or ‘NSE.’ As such, the only additional adder included in the labor forecast is vacation and sick (V&S) time. A standard V&S rate is applied to the forecasted labor cost of a project, as shown in the applicable capital workpaper.

INDICATED SHIPPER DATA REQUEST

IS-SCG-007

SOCALGAS 2019 GRC – A.17-10-008

SOCALGAS RESPONSE

DATE RECEIVED: MARCH 23, 2018

DATE RESPONDED: APRIL 6, 2018

Question 7-7 (o): Please refer to the supplemental workpaper of Richard Philips, Exhibit No. SCG-15-WPS, specifically referring to the section on the Valve Enhancement Plan Workpaper.

o. Please explain if there are any other additional indirect costs included in these cost estimates.

SoCalGas Responses 7-7 (o):

No. There are no other additional indirect cost included in these cost estimates.

INDICATED SHIPPER DATA REQUEST

IS-SCG-007

SOCALGAS 2019 GRC – A.17-10-008

SOCALGAS RESPONSE

DATE RECEIVED: MARCH 23, 2018

DATE RESPONDED: APRIL 6, 2018

Question 7-7 (p): Please refer to the supplemental workpaper of Richard Philips, Exhibit No. SCG-15-WPS, specifically referring to the section on the Valve Enhancement Plan Workpaper.

p. A number of valve enhancement projects are on the same pipeline as another valve enhancement project. Please explain if there are any economies of scale benefits captured when there are multiple projects on the same pipeline. If not, please provide a detailed narrative explaining why benefits associated with economies of scale would not be applicable to other valve enhancement projects conducted on the same pipeline.

SoCalGas Responses 7-7 (p):

Economies of scale were considered and planned into the projects on the same pipeline. The valve sections defined as a project are delineated based on the approximate geographic location and schedule for each project.

Some factors that affect decisions of individual projects include gas system availability, permit acquisition and restrictions, land acquisition and restrictions, and the number of project personnel. In addition, the distances between individual projects on the same pipeline also factor into the decisions. For example, a valve project may occur many miles away from other valve projects on the same pipeline. Line 2000 runs from Blythe, CA, into the Los Angeles Basin and has valve projects along its route in various locations that are not necessarily adjacent.

INDICATED SHIPPER DATA REQUEST

IS-SCG-007

SOCALGAS 2019 GRC – A.17-10-008

SOCALGAS RESPONSE

DATE RECEIVED: MARCH 23, 2018

DATE RESPONDED: APRIL 6, 2018

Question 7-7 (q): Please refer to the supplemental workpaper of Richard Philips, Exhibit No. SCG-15-WPS, specifically referring to the section on the Valve Enhancement Plan Workpaper.

q. Please explain if there are any economies of scale benefits captured when multiple valve enhancement projects occur at the exact same location. If not, please provide a detailed narrative explaining why benefits associated with economies of scale would not be applicable when multiple valve enhancement projects occur at the exact same location.

SoCalGas Responses 7-7 (q):

See response to Question 7-7 (p).