

**INDICATED SHIPPER DATA REQUEST**  
**IS-SCG-004**  
**SOCALGAS 2019 GRC – A.17-10-008**  
**SOCALGAS RESPONSE**  
**DATE RECEIVED: FEBRUARY 28, 2018**  
**DATE RESPONDED: MARCH 26, 2018**

4-1. Please refer to the capital workpaper of SoCalGas witness Neil Navin, Exhibit No. SCG-10-CWP-R, at pages 49 and 50 of 184 for the RAMP related project, Base C4 Well Workovers.

**Response 4-1:** SoCalGas objects to the definitions and instructions submitted by Indicated Shippers on the grounds that they are overbroad and unfairly burdensome. Special interrogatory instructions of this nature are expressly prohibited by California Code of Civil Procedure Section 2030.060(d).

- a. Please provide a detailed explanation of the project, identify the safety culture and/or risk metrics that support the Company's decision to include the project in the 2019 GRC, explain the risks that are associated with the project, explain how this project mitigates those risks, and identify the alternatives considered that also meet the safety and risk objectives, and explain why the proposed project is the most reasonable alternative option.

**Response a:** An explanation of RAMP-related projects, the risk(s) associated with the project, how the project mitigates those risk(s), RAMP-related cost breakdowns, and safety culture are provided in Section II of the Revised Testimony of Neil Navin and the associated workpapers. Additional information with respect to the RAMP risks, such as detailed descriptions about the risk, risk classification, potential drivers, and potential consequences, is included in the risk chapters in the RAMP Report, see <https://www.sdge.com/regulatory-filing/20016/risk-assessment-and-mitigation-phase-report-sdge-socalgas>. The requirement to include alternative mitigation plans is specific to the RAMP showing (see D.16-08-018 at p. 151 and D.14-12-025 at p. 32). Nonetheless, to the extent alternatives were considered when preparing the Test Year 2019 GRC, SoCalGas included such information in Section II of Mr. Navin's testimony.

- b. 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.

**Response b:** Storage projects utilize a combination of methods to focus on reasonable rates and continuous improvement. On a project-specific basis, this could include RFPs, multiple vendors, Subject Matter Expert consultant/contractor support, and new tools and technologies, or some variation of these approaches. Please see Capital Workpaper RAMP C4 Well Workovers, for additional detail. In addition, Underground Storage, in general, engaged in various efforts related to the Fueling Our Future (FOF) initiative. Please see Exhibit SCG-10-R, pages NPN-6 & NPN-17 for additional detail about the FOF efforts.

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- c. Please provide a detailed breakdown of the cost estimates presented for the capital expenditures shown for 2017, 2018, and 2019.

- i. Please identify the labor and non-labor expense associated with Hardware, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.

**Response C-i:** SoCalGas does not forecast its labor and nonlabor expenses in this manner or at the level of detail requested for this testimony.

- ii. Please identify the labor and non-labor expense associated with Software, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.

**Response C-ii :** SoCalGas does not forecast its labor and nonlabor expenses in this manner or at the level of detail requested for this testimony.

- iii. Please identify the labor and non-labor expense associated with Material, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.

**Response C-iii :** SoCalGas does not forecast its labor and nonlabor expenses in this manner or at the level of detail requested for this testimony.

- iv. Please identify the labor and non-labor expense associated with Construction, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.

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**Response C-iv:** SoCalGas does not forecast its labor and nonlabor expenses in this manner or at the level of detail requested for this testimony.

- v. Please identify the labor and non-labor expense associated with Environmental Survey/Permitting/Mitigation, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.

**Response C-v:** SoCalGas does not forecast its labor and nonlabor expenses in this manner or at the level of detail requested for this testimony.

- vi. Please identify the labor and non-labor expense associated with Land & Right-of-Way Acquisition, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.

**Response C-vi:** SoCalGas does not forecast its labor and nonlabor expenses in this manner or at the level of detail requested for this testimony.

- vii. Please identify the labor and non-labor expense associated with Company Labor, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.

**Response C-vii:** SoCalGas does not forecast its labor and nonlabor expenses in this manner or at the level of detail requested for this testimony.

- viii. Please identify the labor and non-labor expense associated with Other (including, but not limited to, Project Management, Engineering, Survey & Design), explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.

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**Response C-viii:** SoCalGas does not forecast its labor and nonlabor expenses in this manner or at the level of detail requested for this testimony.

- ix. Please identify the labor and non-labor expense associated with Contractors, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.

**Response C-ix:** SoCalGas does not forecast its labor and nonlabor expenses in this manner or at the level of detail requested for this testimony.

- x. Please identify the labor and non-labor expense associated with any additional cost component not included in parts i. through ix. above, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.

**Response C-x:** SoCalGas does not forecast its labor and nonlabor expenses in this manner or at the level of detail requested for this testimony.

- d. Please provide the cost model utilized to determine the cost estimates provided for the forecast capital spend in 2017, 2018, and 2019. If available in Excel spreadsheet format, provide with all formulas and links intact.

**Response d:** SoCalGas' cost modeling in preparation of its forecast capital spending for 2017, 2018 and 2019 consists of several processes and components and is not a single spreadsheet; components of that modeling require network database applications that themselves require enterprise-level software including Microsoft SQL Server, Microsoft Visual Studio and Crystal Report Writer. An active Excel spreadsheet for this entire process does not exist. Additional detail on forecasted unit cost and activity is in Capital Workpaper Base C4 Well Workovers; and in the testimony of Neil Navin in the Cost Driver section of Base C4 Well Workovers.

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- e. 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.

**Response e:** SoCalGas objects to the portion of the question that asks, “why it is required to inflate the cost estimates with contingency adders,” because 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:

No contingency adders were included in these costs estimates.

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

**Response f:** 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.

- g. Please explain if there are any additional indirect costs included in these cost estimates not discussed previously.

**Response g:** There are no additional indirect costs included in these cost estimates.

- h. Please explain if the forecast expenditures for 2017 and 2018 represent projects that have already begun.

**Response h:** Forecast expenditures for 2017 and 2018 have begun.

- i. Please provide the actual expenditures for 2017.

**Response i:** Please see the table below.

<u>Exhibit Number</u>	<u>Witness Name</u>	<u>Workpaper</u>	<u>Workpaper Title</u>	Labor	NLbr	NSE	Total
Exh No:SCG-10-CWP-R	Neil P. Navin	004120.00 0	GT Stor Wells / Externally Driven	678	50,768	-	51,446

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- j. Please explain if this project represents an on-going cost that will be continued in the future to maintain a safe and reliable system, or if it is a one-time project that is needed to make a specific system component safer.

**Response j:** SoCalGas objects to this request pursuant to Rule 10.1 of the Commission’s Rules of Practice and Procedure to the extent it seeks information that is neither relevant to the subject matter involved in this proceeding nor is reasonably calculated to lead to the discovery of admissible evidence. SoCalGas further objects to this request on the grounds that “in the future” is vague and ambiguous and can be overbroad and unfairly burdensome. Subject to and without waiving these objections, SoCalGas responds as follows:

As presented in the Test Year 2019 GRC, this project represents an on-going cost to maintain safety and address system reliability.

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**Question 4.1 - Continued**

- k. Please provide a cost estimate forecast of this project for 2020, 2021, and 2022.

**Response k:** The Test Year 2019 General Rate Case as presented in A.17-10-007/008 projects for a revenue requirement to be established on January 1, 2019. 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. As such, no 2020, 2021, or 2022 projections are provided for this project. Please see the Direct testimony of Jawaad Malik (Exhibit SCG-44) for Post-Test Year Ratemaking.

- l. Please explain how this project impacts the post-test year capital expenditures.

**Response l:** Details around the Post-Test Year Mechanism and the calculations for Capital and O&M can be found in the Direct Testimony of Jawaad Malik (Exhibit SCG-44).

- m. Please provide all workpapers from the 2016 RAMP Report associated with this project.

**Response m:** 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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- n. Please identify the exact locations in the 2016 RAMP report that discusses this project.

**Response n:** 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 m. above.

- o. Please explain why this project must be completed in the proposed time frame i.e., during the 2019 GRC cycle, rather than spread over a greater number of years, i.e. during a future GRC cycle.

**Response o:** Well workovers are critical maintenance activities performed on gas storage wells to maintain withdrawal and injection capacity. When well workovers are not completed the impact may lead to fluid encroachment in the storage reservoir or diminished number of wells available for withdrawal. Please also see response j.

- p. Is this project mandated by any approved Federal regulations? If so, please identify the regulations and explain how this project makes SoCalGas compliant with these regulations.

**Response p:** SoCalGas objects to part p of this question 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. Part p of this question seeks legal conclusions, rather than the production of evidence of a factual matter. SoCalGas further objects to part p of this question to the extent it requires SoCalGas to search its files for matters of public record, including in state and federal codes and proceedings (regulations, decisions, orders, etc.). This information is available equally to Indicated Shippers. Subject to and without waiving the foregoing objections, SoCalGas responds as follows:

In addition to the obligation to provide safe and reliable service, this project is supportive of the practices mandated by PHMSA Underground Natural Gas Storage (UGS) regulations 49 CFR §192.12



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- q. Is this project mandated by any approved California regulations? If so, please identify the regulations and explain how this project makes SoCalGas compliant with these regulations.

**Response q:** SoCalGas objects to part q of this question 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. Part q of this question seeks legal conclusions, rather than the production of evidence of a factual matter. SoCalGas further objects to part q of this question to the extent it requires SoCalGas to search its files for matters of public record, including in state and federal codes and proceedings (regulations, decisions, orders, etc.). This information is available equally to Indicated Shippers. Subject to and without waiving the foregoing objections, SoCalGas responds as follows:

In addition to the obligation to provide safe and reliable service, this project supports compliance with the DOGGR regulations, Title 14, California Code of Regulations, and enables well repairs.

- r. Is this project mandated by any proposed State or Federal regulations? If so, please identify these proposed regulations and explain how this project makes SoCalGas compliant with these regulations.

**Response r:** SoCalGas objects to part r of this question 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. Part r of this question seeks legal conclusions, rather than the production of evidence of a factual matter. SoCalGas further objects to part r of this question to the extent it requires SoCalGas to search its files for matters of public record, including in state and federal codes and proceedings (regulations, decisions, orders, etc.). This information is available equally to Indicated Shippers. Subject to and without waiving the foregoing objections, SoCalGas responds as follows:

Other than the obligation to provide safe and reliable service, SoCalGas is unaware of any proposed additional state or federal regulations that impose additional mandates on this project.

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- s. 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. Additionally, explain how the scores in these metrics led SoCalGas to the decision that the 2019 GRC was the appropriate time to propose this project.

**Response s:** SoCalGas and SDG&E object to this request as out of scope. 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.

- t. Please explain what is represented by the “Forecast CPUC Cost Estimates.”

**Response t:** The term "Forecast CPUC Cost Estimates" appears on a suffix workpaper page that may appear on one or more workpaper sets for a given capital budget, which links that budget to its Risk Assessment and Mitigation Phase (RAMP) counterpart risk; those pages show any RAMP-related attributes relevant to the workpaper group in which it is contained. These RAMP pages (identified by the header 'RAMP Item #x' near the top of the page) are provided as a cross reference to the original RAMP Report. There is at least one page for each RAMP item attributed to the workpaper group. The term "Forecast CPUC Cost Estimates" refers to those costs that are recoverable through CPUC authorized revenue requirements. There are costs that are excluded from the General Rate

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Case application because they are funded through other mechanisms, typically another ratemaking proceeding or through another regulatory jurisdiction such as the Federal Energy Regulatory Commission (FERC). The values shown in the "Forecast CPUC Cost Estimates" section of those pages are transcribed from the previously-submitted RAMP Report and consist of ranges of cost estimates to mitigate that particular risk at that time. These were superseded by the updated cost estimates developed for the GRC application.<sup>1</sup>

- i. Please provide all workpapers and cost models associated with developing these cost estimates.

**Response t i:** As described in part d., SoCalGas' cost modeling in preparation of its forecast spending for 2017, 2018 and 2019 consists of several processes and components and is not a single spreadsheet; components of that modeling require network database applications that themselves require enterprise-level software including Microsoft SQL Server, Microsoft Visual Studio and Crystal Report Writer. An active Excel spreadsheet for this entire process does not exist. Workpapers can be found in the volumes served with the testimony, they are identified as follows:

- The testimony exhibit is SCG-10-R
- The corresponding O&M expense workpaper volume is SCG-10-WP-R
- The corresponding capital expense workpaper volume is SCG-10-CWP-R

Most workpaper exhibits do not exist as Excel documents with working formulae. Workpapers and tables that appear in testimony are not created from, nor do they originate as Excel spreadsheets, these are produced from a database system which consists of many data tables that are dynamically linked to permit grouping of cost centers and budgets, editing of historical values, selection of a forecast methodology, adjustments to forecasts and the production of workpapers. The use of a database for this purpose does not involve spreadsheets, the workpapers are formatted 'reports' from that collection of tables and linking relationships that form the database. Data extracts of this type contain only data values, the extract is not capable of producing 'working formulas'.

- ii. Please explain how these cost estimates differ from the capital expenditures being requested in the rate case associated with the same project.

**Response t ii:** Similar to the description in part t, the values shown in the "Forecast CPUC Cost Estimates" section of those pages are transcribed from the previously-submitted RAMP Report and consist of ranges of cost estimates to mitigate that particular risk at that time. These RAMP pages

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<sup>1</sup> I.16-10-015/I.16-10-016 Risk Assessment and Mitigation Phase Report of San Diego Gas & Electric Company and Southern California Gas Company, November 30, 2016. Please also refer to Exhibit SCG-02/SDG&E-02, Chapter 1 (Diana Day) for more details regarding the utilities' RAMP Report.

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(identified by the header 'RAMP Item #x' near the top of the page) are provided as a cross reference to the original RAMP Report. These are superseded by the more precise cost estimates developed for the GRC application.

- u. Please explain how the Historical Embedded Cost Estimates were determined.

**Response u:** Historical Embedded Cost Estimates are from 2016 recorded costs.

- v. Please explain how the Historical Embedded Cost Estimates impact the proposed capital expenditures in the rate case.

**Response v:** Similar to the description in part t, the term "Historical Embedded Cost Estimates" appears on a suffix workpaper page that may appear on one or more workpaper sets for a given capital budget, which links that budget to its Risk Assessment and Mitigation Phase (RAMP) counterpart risk; those pages show any RAMP-related attributes relevant to the workpaper group in which it is contained. These RAMP pages (identified by the header 'RAMP Item #x' near the top of the page) are provided as a cross reference to the original RAMP Report. There is at least one page for each RAMP item attributed to the workpaper group. The term "Historical Embedded Cost Estimates" refers to that fraction of estimated risk-mitigation costs that are embedded in SoCalGas' 2016 historical costs and is already being performed. For example, if a risk mitigation activity is estimated to have a 2017 total value of \$10, and its 'historical embedded cost estimate' is \$8, then the remaining \$2 would be considered an incremental cost forecast. If the forecast that includes this risk mitigation activity was derived using the 2016 historical value such as an average, a trend, or using 2016 as a starting point (the 'base-year' method), then that \$8 'historical embedded cost estimate' is already included in that underlying forecast and only the \$2 is an estimated incremental new cost. Also as in the response to part t, the values shown in the "Historical Embedded Cost Estimates" section of those pages are transcribed from the previously-submitted RAMP Report and consist of cost estimates developed at that time. These were superseded by the more precise cost estimates developed for the GRC application.<sup>2</sup>

- w. Please explain why the Historical Embedded Cost Estimates are estimates and not actual expenditures.

**Response w:** Please refer to the testimony of Jamie York, Exhibit SCG-02-R/SDG&E-02-R Chapter 3: RAMP to GRC integration beginning at page JKY-5 Section D: Incorporation of the RAMP Request into Overall GRC Request. Specifically line 17 on JKY-6 through line 2 on JKY-7 discusses the quantification of BY 2016 expenditures historically devoted to the identified RAMP mitigation activities.

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<sup>2</sup> Id.

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- x. Please explain if the Historical Embedded Cost Estimates were approved by the CPUC.

**Response x:** The Historical Embedded Cost Estimates were prepared for the TY 2019 GRC (see the testimony of Jamie York referenced in response w above). The Rate Case Plan does not include a provision for the Commission to approve historical embedded RAMP estimates. In D.16-06-054, the Commission adopted a test year 2016 revenue requirement for SoCalGas. The expenditures that form the basis for the embedded cost estimates are a portion of SoCalGas' 2016 expenditures within the authorized revenue requirement.

- y. Please explain the Funding Source identified for this project.

**Response y:** Similar to the description in part t, the term "Funding Source" appears on a suffix workpaper page that may appear on one or more workpaper sets for a given capital budget, which links that budget to its Risk Assessment and Mitigation Phase (RAMP)<sup>3</sup> counterpart risk; those pages show any RAMP-related attributes relevant to the workpaper group in which it is contained. These RAMP pages (identified by the header 'RAMP Item #x' near the top of the page) are provided as a cross reference to the original RAMP Report. There is at least one page for each RAMP item attributed to the workpaper group. The term "Funding Source" refers to regulatory jurisdiction that authorizes the revenue requirement for that activity. For example, the 'Funding Source' of 'CPUC-GRC' indicates that funding for this activity is authorized through the CPUC General Rate Case proceeding and hence is included in these workpapers.

- z. Please explain how this project was scored for safety and risk based on SoCalGas's safety culture and risk assessment. Additionally, please explain how the safety and risk assessments or scores are used to determine the urgency and timing of the projects.

**Response z:** SoCalGas and SDG&E object to this request as out of scope and vague, ambiguous, and unintelligible. Subject to and without waiving the foregoing objection, SoCalGas and SDG&E responds as follows:

As described in the RAMP Report, SoCalGas' risk assessment methodology was used to score the overall risks that SoCalGas is managing, not the specific projects that are proposed in the GRC. Furthermore, SoCalGas demonstrated an early attempt at assessing risk mitigations in the RAMP Report. That methodology did not score individual projects, but rather the scoring of the bundle of mitigants facilitated an estimation of how a group of programs/projects may reduce a given risk.

As such, the urgency and timing of projects is not based on a particular risk

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<sup>3</sup> Id.

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assessment or score. However, SoCalGas' annual risk assessment process serves as one of many inputs in considering how investments align with risk priorities by providing an overarching methodology for identifying, evaluating and prioritizing SoCalGas' risks with safety as a top priority. 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.

In addition to considering the risk priorities identified in the annual risk assessment process, factors such as regulatory mandates and execution feasibility may drive the urgency and timing for projects.

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4-2. Please refer to the capital workpaper of SoCalGas witness Neil Navin, Exhibit No. SCG-10-CWP-R, at pages 37 and 38 of 184 for the RAMP related project, Base C2 Well Plug & Abandon – Accelerated.

**Response 4-2:** SoCalGas objects to the definitions and instructions submitted by Indicated Shippers on the grounds that they are overbroad and unfairly burdensome. Special interrogatory instructions of this nature are expressly prohibited by California Code of Civil Procedure Section 2030.060(d).

- a. Please provide a detailed explanation of the project, identify the safety culture and/or risk metrics that support the Company’s decision to include the project in the 2019 GRC, explain the risks that are associated with the project, explain how this project mitigates those risks, and identify the alternatives considered that also meet the safety and risk objectives, and explain why the proposed project is the most reasonable alternative option.

**Response a:** An explanation of RAMP-related projects, the risk(s) associated with the project, how the project mitigates those risk(s), RAMP-related cost breakdowns, and safety culture are provided in Section II of the Revised Testimony of Neil Navin and the associated workpapers. Additional information with respect to the RAMP risks, such as detailed descriptions about the risk, risk classification, potential drivers, and potential consequences, is included in the risk chapters in the RAMP Report, see <https://www.sdge.com/regulatory-filing/20016/risk-assessment-and-mitigation-phase-report-sdge-socalgas>. The requirement to include alternative mitigation plans is specific to the RAMP showing (see D.16-08-018 at p. 151 and D.14-12-025 at p. 32). Nonetheless, to the extent alternatives were considered when preparing the Test Year 2019 GRC, SoCalGas included such information in Section II of Mr. Navin’s testimony.

- b. 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.

**Response b:** Storage projects utilize a combination of methods to focus on reasonable rates and continuous improvement. On a project-specific basis, this could include RFPs, multiple vendors, Subject Matter Expert consultant/contractor support, and new tools and technologies, or some variation of these approaches. Please see Capital Workpaper RAMP C2 Well Plug & Abandon - Accelerated, for additional detail.

- c. Please provide a detailed breakdown of the cost estimates presented for the capital expenditures shown for 2017, 2018, and 2019.
  - i. Please identify the labor and non-labor expense associated with Hardware, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate

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component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.

**Response c i:** SoCalGas does not forecast its labor and nonlabor expenses in this manner or at the level of detail requested for this testimony.

ii. Please identify the labor and non-labor expense associated with Software, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.

**Response c ii:** SoCalGas does not forecast its labor and nonlabor expenses in this manner or at the level of detail requested for this testimony.

- iii. Please identify the labor and non-labor expense associated with Material, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.

**Response c iii:** SoCalGas does not forecast its labor and nonlabor expenses in this manner or at the level of detail requested for this testimony.

- iv. Please identify the labor and non-labor expense associated with Construction, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.

**Response c iv:** SoCalGas does not forecast its labor and nonlabor expenses in this manner or at the level of detail requested for this testimony.

- v. Please identify the labor and non-labor expense associated with Environmental Survey/Permitting/Mitigation, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.



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**Response c v:** SoCalGas does not forecast its labor and nonlabor expenses in this manner or at the level of detail requested for this testimony.

- vi. Please identify the labor and non-labor expense associated with Land & Right-of-Way Acquisition, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.

**Response c vi :** SoCalGas does not forecast its labor and nonlabor expenses in this manner or at the level of detail requested for this testimony.

vii. Please identify the labor and non-labor expense associated with Company Labor, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.

**Response c vii:** SoCalGas does not forecast its labor and nonlabor expenses in this manner or at the level of detail requested for this testimony.

- viii. Please identify the labor and non-labor expense associated with Other (including, but not limited to, Project Management, Engineering, Survey & Design), explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.

**Response c viii:** SoCalGas does not forecast its labor and nonlabor expenses in this manner or at the level of detail requested for this testimony.

- ix. Please identify the labor and non-labor expense associated with Contractors, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.

**Response c ix:** SoCalGas does not forecast its labor and nonlabor expenses in this manner or at the level of detail requested for this testimony.

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- x. Please identify the labor and non-labor expense associated with any additional cost component not included in parts i. through ix. above, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.

**Response c x:** SoCalGas does not forecast its labor and nonlabor expenses in this manner or at the level of detail requested for this testimony.

- d. Please provide the cost model utilized to determine the cost estimates provided for the forecast capital spend in 2017, 2018, and 2019. If available in Excel spreadsheet format, provide with all formulas and links intact.

**Response d:** SoCalGas' cost modeling in preparation of its forecast capital spending for 2017, 2018 and 2019 consists of several processes and components and is not a single spreadsheet; components of that modeling require network database applications that themselves require enterprise-level software including Microsoft SQL Server, Microsoft Visual Studio and Crystal Report Writer. An active Excel spreadsheet for this entire process does not exist.

- e. 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.

**Response e:** SoCalGas objects to the portion of the question that asks, “why it is required to inflate the cost estimates with contingency adders,” because 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:

No contingency adders are included in these cost estimates.

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

**Response f:** 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.

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- g. Please explain if there are any additional indirect costs included in these cost estimates not discussed previously.

**Response g:** There are no additional indirect costs included in these cost estimates.

- h. Please explain if the forecast expenditures for 2017 and 2018 represent projects that have already begun.

**Response h:** Note, this workpaper was for 2017 only; forecast expenditures for 2017 have begun.

- i. Please provide the actual expenditures for 2017.

**Response i:** Please see the table below.

<u>Exhibit Number</u>	<u>Witness Name</u>	<u>Workpaper</u>	<u>Workpaper Title</u>	Labor	NLbr	NSE	Total
Exh No:SCG-10-CWP-R	Neil P. Navin	004120.00 0	GT Stor Wells / Externally Driven	678	50,768	-	51,446

- j. Please explain if this project represents an on-going cost that will be continued in the future to maintain a safe and reliable system, or if it is a one-time project that is needed to make a specific system component safer.

**Response j:** SoCalGas objects to this request pursuant to Rule 10.1 of the Commission’s Rules of Practice and Procedure to the extent it seeks information that is neither relevant to the subject matter involved in this proceeding nor is reasonably calculated to lead to the discovery of admissible evidence. SoCalGas further objects to this request on the grounds that “in the future” is vague and ambiguous and can be overbroad and unfairly burdensome. Subject to and without waiving these objections, SoCalGas responds as follows:

As presented in the Test Year 2019 GRC, the accelerated well abandonments is not an on-going cost. This project is a one-time project that is needed to address regulatory requirements.

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- k. Please provide a cost estimate forecast of this project for 2020, 2021, and 2022.

**Response k:** The Test Year 2019 General Rate Case as presented in A.17-10-007/008 projects for a revenue requirement to be established on January 1, 2019. 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. As such, no 2020, 2021, or 2022 projections are provided for this project. Please see the Direct testimony of Jawaad Malik (Exhibit SCG-44) for Post-Test Year Ratemaking.

- l. Please explain how this project impacts the post-test year capital expenditures.

**Response l:** Details around the Post-Test Year Mechanism and the calculations for Capital and O&M can be found in the Direct Testimony of Jawaad Malik (Exhibit SCG-44).

- m. Please provide all workpapers from the 2016 RAMP Report associated with this project.

**Response m:** 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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- n. Please identify the exact locations in the 2016 RAMP report that discusses this project.

**Response n:** 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 m. above.

- o. Please explain why this project must be completed in the proposed time frame i.e., during the 2019 GRC cycle, rather than spread over a greater number of years, i.e. during a future GRC cycle.

**Response o:** The C2 Well Plug & Abandon – Accelerated project represents a one-time accelerated cost in 2017 for activity mandated by approved California DOGGR Order 1109 Action (3) to “Properly plug and abandon in accordance with Public Resources Code 3208 all wells in the gas storage injection project in the Field that have not been tested and remediated to the Division’s satisfaction within one year after completion of Step 6b of the Safety Review”.

- p. Is this project mandated by any approved Federal regulations? If so, please identify the regulations and explain how this project makes SoCalGas compliant with these regulations.

**Response p:** SoCalGas objects to part p of this question 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. Part p of this question seeks legal conclusions, rather than the production of evidence of a factual matter. SoCalGas further objects to part p of this question to the extent it requires SoCalGas to search its files for matters of public record, including in state and federal codes and proceedings (regulations, decisions, orders, etc.). This information is available equally to Indicated Shippers. Subject to and without waiving the foregoing objections, SoCalGas responds as follows:

This project is consistent with the practices mandated by PHMSA Underground Natural Gas Storage (UGS) regulations 49 CFR §192.12

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- q. Is this project mandated by any approved California regulations? If so, please identify the regulations and explain how this project makes SoCalGas compliant with these regulations.

**Response q:** SoCalGas objects to part q of this question 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. Part q of this question seeks legal conclusions, rather than the production of evidence of a factual matter. SoCalGas further objects to part q of this question to the extent it requires SoCalGas to search its files for matters of public record, including in state and federal codes and proceedings (regulations, decisions, orders, etc.). This information is available equally to Indicated Shippers. Subject to and without waiving the foregoing objections, SoCalGas responds as follows:

In addition to the obligation to provide safe and reliable service, this project is mandated by approved California DOGGR Order 1109 Action (3) to “Properly plug and abandon in accordance with Public Resources Code 3208 all wells in the gas storage injection project in the Field that have not been tested and remediated to the Division’s satisfaction within one year after completion of Step 6b of the Safety Review”.

- r. Is this project mandated by any proposed State or Federal regulations? If so, please identify these proposed regulations and explain how this project makes SoCalGas compliant with these regulations.

**Response r:** SoCalGas objects to part r of this question 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. Part r of this question seeks legal conclusions, rather than the production of evidence of a factual matter. SoCalGas further objects to part r of this question to the extent it requires SoCalGas to search its files for matters of public record, including in state and federal codes and proceedings (regulations, decisions, orders, etc.). This information is available equally to Indicated Shippers. Subject to and without waiving the foregoing objections, SoCalGas responds as follows:

The C2 Well Plug & Abandon – Accelerated project represents a one-time accelerated cost in 2017 for activity mandated by approved California DOGGR Order 1109 Action (3) to “Properly plug and abandon in accordance with Public Resources Code 3208 all wells in the gas storage injection project in the Field that have not been tested and remediated to the Division’s satisfaction within one year after completion of Step 6b of the Safety Review.”

For ongoing well plug and abandonment activities, please see SoCalGas response to data request: IS-SCG-003 Q7. r.

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- s. 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. Additionally, explain how the scores in these metrics led SoCalGas to the decision that the 2019 GRC was the appropriate time to propose this project.

**Response s:** SoCalGas and SDG&E object to this request as out of scope. 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.

- t. Please explain what is represented by the “Forecast CPUC Cost Estimates.”

**Response t:** The term "Forecast CPUC Cost Estimates" appears on a suffix workpaper page that may appear on one or more workpaper sets for a given capital budget, which links that budget to its Risk Aware Mitigation Phase (RAMP)<sup>1</sup> counterpart risk; those pages show any RAMP-related attributes relevant to the workpaper group in which it is contained. These RAMP pages (identified by the header 'RAMP Item #x' near the top of the page) are provided as a cross reference to the original RAMP Report. There is at least one page for each RAMP item attributed to the workpaper group. The term "Forecast CPUC Cost Estimates" refers to those costs that are recoverable through CPUC authorized revenue requirements. There are costs that are excluded from the General Rate Case application because they are funded through other mechanisms, typically another ratemaking proceeding or through another regulatory jurisdiction such as the Federal Energy

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<sup>1</sup> I.16-10-015/I.16-10-016 Risk Assessment and Mitigation Phase Report of San Diego Gas & Electric Company and Southern California Gas Company, November 30, 2016. Please also refer to Exhibit SCG-02/SDG&E-02, Chapter 1 (Diana Day) for more details regarding the utilities’ RAMP Report.

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Regulatory Commission (FERC). The values shown in the "Forecast CPUC Cost Estimates" section of those pages are transcribed from the previously-submitted RAMP Report and consist of ranges of cost estimates to mitigate that particular risk at that time. These were superseded by the updated cost estimates developed for the GRC application.

- i. Please provide all workpapers and cost models associated with developing these cost estimates.

**Response t-i:** As described in part d, SoCalGas' cost modeling in preparation of its forecast spending for 2017, 2018 and 2019 consists of several processes and components and is not a single spreadsheet; components of that modeling require network database applications that themselves require enterprise-level software including Microsoft SQL Server, Microsoft Visual Studio and Crystal Report Writer. An active Excel spreadsheet for this entire process does not exist. Workpapers can be found in the volumes served with the testimony, they are identified as follows:

- The testimony exhibit is SCG-10-R
- The corresponding O&M expense workpaper volume is SCG-10-WP-R
- The corresponding capital expense workpaper volume is SCG-10-CWP-R

Most workpaper exhibits do not exist as Excel documents with working formulae. Workpapers and tables that appear in testimony are not created from, nor do they originate as Excel spreadsheets, these are produced from a database system which consists of many data tables that are dynamically linked to permit grouping of cost centers and budgets, editing of historical values, selection of a forecast methodology, adjustments to forecasts and the production of workpapers. The use of a database for this purpose does not involve spreadsheets, the workpapers are formatted 'reports' from that collection of tables and linking relationships that form the database. Data extracts of this type contain only data values, the extract is not capable of producing 'working formulas'.

- ii. Please explain how these cost estimates differ from the capital expenditures being requested in the rate case associated with the same project.

**Response t-ii:** Similar to the description in part t, the values shown in the "Forecast CPUC Cost Estimates" section of those pages are transcribed from the previously-submitted RAMP Report and consist of ranges of cost estimates to mitigate that particular risk at that time. These RAMP pages (identified by the header 'RAMP Item #x' near the top of the page) are provided as a cross reference to the original RAMP Report. These are superseded by the more precise cost estimates developed for the GRC application.



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- u. Please explain how the Historical Embedded Cost Estimates were determined.

**Response u:** Historical Embedded Cost Estimates are from 2016 recorded costs.

- v. Please explain how the Historical Embedded Cost Estimates impact the proposed capital expenditures in the rate case.

**Response v:** Similar to the description in part t, the term "Historical Embedded Cost Estimates" appears on a suffix workpaper page that may appear on one or more workpaper sets for a given capital budget, which links that budget to its Risk Aware Mitigation Phase (RAMP)<sup>2</sup> counterpart risk; those pages show any RAMP-related attributes relevant to the workpaper group in which it is contained. These RAMP pages (identified by the header 'RAMP Item #x' near the top of the page) are provided as a cross reference to the original RAMP Report. There is at least one page for each RAMP item attributed to the workpaper group. The term "Historical Embedded Cost Estimates" refers to that fraction of estimated risk-mitigation costs that are embedded in SoCalGas' 2016 historical costs and is already being performed. For example, if a risk mitigation activity is estimated to have a 2017 total value of \$10, and its 'historical embedded cost estimate' is \$8, then the remaining \$2 would be considered an incremental cost forecast. If the forecast that includes this risk mitigation activity was derived using the 2016 historical value such as an average, a trend, or using 2016 as a starting point (the 'base-year' method), then that \$8 'historical embedded cost estimate' is already included in that underlying forecast and only the \$2 is an estimated incremental new cost. Also as in the response to part t, the values shown in the "Historical Embedded Cost Estimates" section of those pages are transcribed from the previously-submitted RAMP Report and consist of cost estimates developed at that time. These were superseded by the more precise cost estimates developed for the GRC application.

- w. Please explain why the Historical Embedded Cost Estimates are estimates and not actual expenditures.

**Response w:** Please refer to the testimony of Jamie York, Exhibit SCG-02-R/SDG&E-02-R Chapter 3: RAMP to GRC integration beginning at page JKY-5 Section D: Incorporation of the RAMP Request into Overall GRC Request. Specifically line 17 on JKY-6 through line 2 on JKY-7 discusses the quantification of BY 2016 expenditures historically devoted to the identified RAMP mitigation activities.

- x. Please explain if the Historical Embedded Cost Estimates were approved by the CPUC.

**Response x:** The Historical Embedded Cost Estimates were prepared for the TY 2019 GRC (see the testimony of Jamie York referenced in response w above). The Rate Case Plan does not include a provision for the Commission to approve

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<sup>2</sup> Id.

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historical embedded RAMP estimates. In D.16-06-054, the Commission adopted a test year 2016 revenue requirement for SoCalGas. The expenditures that form the basis for the embedded cost estimates are a portion of SoCalGas' 2016 expenditures within the authorized revenue requirement.

- y. Please explain the Funding Source identified for this project.

**Response y:** Similar to the description in part t, the term "Funding Source" appears on a suffix workpaper page that may appear on one or more workpaper sets for a given capital budget, which links that budget to its Risk Aware Mitigation Phase (RAMP)<sup>3</sup> counterpart risk; those pages show any RAMP-related attributes relevant to the workpaper group in which it is contained. These RAMP pages (identified by the header 'RAMP Item #x' near the top of the page) are provided as a cross reference to the original RAMP Report. There is at least one page for each RAMP item attributed to the workpaper group. The term "Funding Source" refers to regulatory jurisdiction that authorizes the revenue requirement for that activity. For example, the 'Funding Source' of 'CPUC-GRC' indicates that funding for this activity is authorized through the CPUC General Rate Case proceeding and hence is included in these workpapers.

- z. Please explain how this project was scored for safety and risk based on SoCalGas's safety culture and risk assessment. Additionally, please explain how the safety and risk assessments or scores are used to determine the urgency and timing of the projects.

**Response z:** SoCalGas and SDG&E object to this request as out of scope and vague, ambiguous, and unintelligible. Subject to and without waiving the foregoing objection, SoCalGas and SDG&E responds as follows: As described in the RAMP Report, SoCalGas's risk assessment methodology was used to score the overall risks that SoCalGas is managing, not the specific projects that are proposed in the GRC. Furthermore, SoCalGas demonstrated an early attempt at assessing risk mitigations in the RAMP Report. That methodology did not score individual projects, but rather the scoring of the bundle of mitigants facilitated an estimation of how a group of programs/projects may reduce a given risk.

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<sup>3</sup> Id.

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As such, the urgency and timing of projects is not based on a particular risk assessment or score. However, SoCalGas' annual risk assessment process serves as one of many inputs in considering how investments align with risk priorities by providing an overarching methodology for identifying, evaluating and prioritizing SoCalGas' risks with safety as a top priority. 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.

In addition to considering the risk priorities identified in the annual risk assessment process, factors such as regulatory mandates and execution feasibility may drive the urgency and timing for projects.

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4-3. Please refer to the capital workpaper of SoCalGas witness Neil Navin, Exhibit No. SCG-10-CWP-R, at pages 78 and 79 of 184 for the RAMP related project, Base Aliso Pipe Bridge Replacement.

**Response 4-3:** SoCalGas objects to the definitions and instructions submitted by Indicated Shippers on the grounds that they are overbroad and unfairly burdensome. Special interrogatory instructions of this nature are expressly prohibited by California Code of Civil Procedure Section 2030.060(d).

- a. Please provide a detailed explanation of the project, identify the safety culture and/or risk metrics that support the Company's decision to include the project in the 2019 GRC, explain the risks that are associated with the project, explain how this project mitigates those risks, and identify the alternatives considered that also meet the safety and risk objectives, and explain why the proposed project is the most reasonable alternative option.

**Response a:** An explanation of RAMP-related projects, the risk(s) associated with the project, how the project mitigates those risk(s), RAMP-related cost breakdowns, and safety culture are provided in Section II of the Revised Testimony of Neil Navin and the associated workpapers. Additional information with respect to the RAMP risks, such as detailed descriptions about the risk, risk classification, potential drivers, and potential consequences, is included in the risk chapters in the RAMP Report, see <https://www.sdge.com/regulatory-filing/20016/risk-assessment-and-mitigation-phase-report-sdge-socalgas>. The requirement to include alternative mitigation plans is specific to the RAMP showing (see D.16-08-018 at p. 151 and D.14-12-025 at p. 32). Nonetheless, to the extent alternatives were considered when preparing the Test Year 2019 GRC, SoCalGas included such information in Section II of Mr. Navin's testimony.

- b. 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.

**Response b:** Storage projects utilize a combination of methods to focus on reasonable rates and continuous improvement. On a project-specific basis, this could include RFPs, multiple vendors, Subject Matter Expert consultant/contractor support, and new tools and technologies, or some variation of these approaches. Please see Capital Workpaper RAMP Aliso Pipe Bridge Replacement, for additional detail. In addition, Underground Storage, in general, engaged in various efforts related to the Fueling Our Future (FOF) initiative. Please see Exhibit SCG-10-R, pages NPN-6 & NPN-17 for additional detail about the FOF efforts.

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- c. Please provide a detailed breakdown of the cost estimates presented for the capital expenditures shown for 2017, 2018, and 2019.
- i. Please identify the labor and non-labor expense associated with Hardware, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.

**Response c-i:** SoCalGas does not forecast its labor and nonlabor expenses in this manner or at the level of detail requested for this testimony.

- ii. Please identify the labor and non-labor expense associated with Software, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.

**Response c-ii:** SoCalGas does not forecast its labor and nonlabor expenses in this manner or at the level of detail requested for this testimony.

- iii. Please identify the labor and non-labor expense associated with Material, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.

**Response c-iii:** SoCalGas does not forecast its labor and nonlabor expenses in this manner or at the level of detail requested for this testimony.

- iv. Please identify the labor and non-labor expense associated with Construction, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.

**Response c-iv:** SoCalGas does not forecast its labor and nonlabor expenses in this manner or at the level of detail requested for this testimony.

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Please identify the labor and non-labor expense associated with Environmental Survey/Permitting/Mitigation, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further,

please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.

**Response c-v:** SoCalGas does not forecast its labor and nonlabor expenses in this manner or at the level of detail requested for this testimony.

- v. Please identify the labor and non-labor expense associated with Land & Right-of-Way Acquisition, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.

**Response c-v:** SoCalGas does not forecast its labor and nonlabor expenses in this manner or at the level of detail requested for this testimony.

- vi. Please identify the labor and non-labor expense associated with Company Labor, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.

**Response c-vi:** SoCalGas does not forecast its labor and nonlabor expenses in this manner or at the level of detail requested for this testimony.

- vii. Please identify the labor and non-labor expense associated with Other (including, but not limited to, Project Management, Engineering, Survey & Design), explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.

**Response c-vii:** SoCalGas does not forecast its labor and nonlabor expenses in this manner or at the level of detail requested for this testimony.

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viii. Please identify the labor and non-labor expense associated with Contractors, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.

**Response c-viii:** SoCalGas does not forecast its labor and nonlabor expenses in this manner or at the level of detail requested for this testimony.

ix. Please identify the labor and non-labor expense associated with any additional cost component not included in parts i. through ix. above, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.

**Response c-ix:** SoCalGas does not forecast its labor and nonlabor expenses in this manner or at the level of detail requested for this testimony.

d. Please provide the cost model utilized to determine the cost estimates provided for the forecast capital spend in 2017, 2018, and 2019. If available in Excel spreadsheet format, provide with all formulas and links intact.

**Response d:** SoCalGas' cost modeling in preparation of its forecast capital spending for 2017, 2018 and 2019 consists of several processes and components and is not a single spreadsheet; components of that modeling require network database applications that themselves require enterprise-level software including Microsoft SQL Server, Microsoft Visual Studio and Crystal Report Writer. An active Excel spreadsheet for this entire process does not exist.

e. 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.

**Response e:** SoCalGas objects to the portion of the question that asks, “why it is required to inflate the cost estimates with contingency adders,” because 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:

No contingency adders were included in these costs estimates.

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

**Response f:** 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.

- g. Please explain if there are any additional indirect costs included in these cost estimates not discussed previously.

**Response g:** There are no additional indirect costs included in these cost estimates.

- h. Please explain if the forecast expenditures for 2017 and 2018 represent projects that have already begun.

**Response h:** Forecast expenditures for 2017 and 2018 have begun.

- i. Please provide the actual expenditures for 2017.

**Response i:** Please see the table below.

<u>Exhibit Number</u>	<u>Witness Name</u>	<u>Workpaper #</u>	<u>Workpaper Title</u>	Labor	NLbr	NSE	Total
Exh No:SCG-10-CWP-R	Neil P. Navin	004130.00 0	GT Stor Pipelines / Externally Driven	2,207	18,456	-	20,662



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- j. Please explain if this project represents an on-going cost that will be continued in the future to maintain a safe and reliable system, or if it is a one-time project that is needed to make a specific system component safer.

**Response j:** SoCalGas objects to this request pursuant to Rule 10.1 of the Commission's Rules of Practice and Procedure to the extent it seeks information that is neither relevant to the subject matter involved in this proceeding nor is reasonably calculated to lead to the discovery of admissible evidence. SoCalGas further objects to this request on the grounds that "in the future" is vague and ambiguous and can be overbroad and unfairly burdensome. Subject to and without waiving these objections, SoCalGas responds as follows:

As presented in the Test Year 2019 GRC, the Aliso Pipe Bridge Replacement is a one-time capital project that is needed to address field injection and withdrawal piping.

- k. Please provide a cost estimate forecast of this project for 2020, 2021, and 2022.

**Response k:** The Test Year 2019 General Rate Case as presented in A.17-10-007/008 projects for a revenue requirement to be established on January 1, 2019. 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. As such, no 2020, 2021, or 2022 projections are provided for this project. Please see the Direct testimony of Jawaad Malik (Exhibit SCG-44) for Post-Test Year Ratemaking.

- l. Please explain how this project impacts the post-test year capital expenditures.

**Response l:** Details around the Post-Test Year Mechanism and the calculations for Capital and O&M can be found in the Direct Testimony of Jawaad Malik (Exhibit SCG-44).

- m. Please provide all workpapers from the 2016 RAMP Report associated with this project.

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**Response m:** 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.)

- n. Please identify the exact locations in the 2016 RAMP report that discusses this project.

**Response n:** 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 m. above.

- o. Please explain why this project must be completed in the proposed time frame i.e., during the 2019 GRC cycle, rather than spread over a greater number of years, i.e. during a future GRC cycle.

**Response o:** As presented in the Test Year 2019 GRC, the Aliso Pipe Bridge Replacement is a one-time capital project that is needed to relocate an existing pipe rack out of a ravine area with landslide and soil erosion risks, and is an activity that supports our obligation to provide safe and reliable service.

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- p. Is this project mandated by any approved Federal regulations? If so, please identify the regulations and explain how this project makes SoCalGas compliant with these regulations.

**Response p:** SoCalGas objects to part p of this question 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. Part p of this question seeks legal conclusions, rather than the production of evidence of a factual matter. SoCalGas further objects to part p of this question to the extent it requires SoCalGas to search its files for matters of public record, including in state and federal codes and proceedings (regulations, decisions, orders, etc.). This information is available equally to Indicated Shippers. Subject to and without waiving the foregoing objections, SoCalGas responds as follows:

In addition, to SoCalGas' obligation to provide safe and reliable service, this project supports the DOT's Integrity Management Rule, 49 CFR Part 192 Subpart O – Pipeline Integrity Management (Rule), and additionally it supports SoCalGas' obligation to provide safe and reliable service.

- q. Is this project mandated by any approved California regulations? If so, please identify the regulations and explain how this project makes SoCalGas compliant with these regulations.

**Response q:** SoCalGas objects to part q of this question 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. Part q of this question seeks legal conclusions, rather than the production of evidence of a factual matter. SoCalGas further objects to part q of this question to the extent it requires SoCalGas to search its files for matters of public record, including in state and federal codes and proceedings (regulations, decisions, orders, etc.). This information is available equally to Indicated Shippers. Subject to and without waiving the foregoing objections, SoCalGas responds as follows:

This project supports SoCalGas' obligation to provide safe and reliable service. This project is not specifically mandated by any approved California regulations.

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- r. Is this project mandated by any proposed State or Federal regulations? If so, please identify these proposed regulations and explain how this project makes SoCalGas compliant with these regulations.

**Response r:** SoCalGas objects to part r of this question 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. Part r of this question seeks legal conclusions, rather than the production of evidence of a factual matter. SoCalGas further objects to part r of this question to the extent it requires SoCalGas to search its files for matters of public record, including in state and federal codes and proceedings (regulations, decisions, orders, etc.). This information is available equally to Indicated Shippers. Subject to and without waiving the foregoing objections, SoCalGas responds as follows:

Other than the obligation to provide safe and reliable service, SoCalGas is unaware of any proposed additional state or federal regulations applicable to this project.

- s. 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. Additionally, explain how the scores in these metrics led SoCalGas to the decision that the 2019 GRC was the appropriate time to propose this project.

**Response s:** SoCalGas and SDG&E object to this request as out of scope. 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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t. Please explain what is represented by the “Forecast CPUC Cost Estimates.”

**Response t:** The term "Forecast CPUC Cost Estimates" appears on a suffix workpaper page that may appear on one or more workpaper sets for a given capital budget, which links that budget to its Risk Aware Mitigation Phase (RAMP)<sup>1</sup> counterpart risk; those pages show any RAMP-related attributes relevant to the workpaper group in which it is contained. These RAMP pages (identified by the header 'RAMP Item #x' near the top of the page) are provided as a cross reference to the original RAMP Report. There is at least one page for each RAMP item attributed to the workpaper group. The term "Forecast CPUC Cost Estimates" refers to those costs that are recoverable through CPUC authorized revenue requirements. There are costs that are excluded from the General Rate Case application because they are funded through other mechanisms, typically another ratemaking proceeding or through another regulatory jurisdiction such as the Federal Energy Regulatory Commission (FERC). The values shown in the "Forecast CPUC Cost Estimates" section of those pages are transcribed from the previously-submitted RAMP Report and consist of ranges of cost estimates to mitigate that particular risk at that time. These were superseded by the updated cost estimates developed for the GRC application.

i. Please provide all workpapers and cost models associated with developing these cost estimates.

**Response i:** As described in part d, SoCalGas' cost modeling in preparation of its forecast spending for 2017, 2018 and 2019 consists of several processes and components and is not a single spreadsheet; components of that modeling require network database applications that themselves require enterprise-level software including Microsoft SQL Server, Microsoft Visual Studio and Crystal Report Writer. An active Excel spreadsheet for this entire process does not exist. Workpapers can be found in the volumes served with the testimony, they are identified as follows:

- The testimony exhibit is SCG-10-R
- The corresponding O&M expense workpaper volume is SCG-10-WP-R
- The corresponding capital expense workpaper volume is SCG-10-CWP-R

Most workpaper exhibits do not exist as Excel documents with working formulae. Workpapers and tables that appear in testimony are not created from, nor do they originate as Excel spreadsheets, these are produced from a database system which consists of many data tables that are dynamically linked to permit grouping of cost centers and budgets, editing of historical values, selection of a forecast methodology, adjustments to forecasts and the production of workpapers. The use of a database for this purpose does

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<sup>1</sup> I.16-10-015/I.16-10-016 Risk Assessment and Mitigation Phase Report of San Diego Gas & Electric Company and Southern California Gas Company, November 30, 2016. Please also refer to Exhibit SCG-02/SDG&E-02, Chapter 1 (Diana Day) for more details regarding the utilities' RAMP Report.

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not involve spreadsheets, the workpapers are formatted 'reports' from that collection of tables and linking relationships that form the database. Data extracts of this type contain only data values, the extract is not capable of producing 'working formulas'.

- ii. Please explain how these cost estimates differ from the capital expenditures being requested in the rate case associated with the same project.

**Response ii:** Similar to the description in part t, the values shown in the "Forecast CPUC Cost Estimates" section of those pages are transcribed from the previously-submitted RAMP Report and consist of ranges of cost estimates to mitigate that particular risk at that time. These RAMP pages (identified by the header 'RAMP Item #x' near the top of the page) are provided as a cross reference to the original RAMP Report. These are superseded by the more precise cost estimates developed for the GRC application.

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u. Please explain how the Historical Embedded Cost Estimates were determined.

**Response u:** Historical Embedded Cost Estimates are from 2016 recorded costs.

v. Please explain how the Historical Embedded Cost Estimates impact the proposed capital expenditures in the rate case.

**Response v:** Similar to the description in part t, the term "Historical Embedded Cost Estimates" appears on a suffix workpaper page that may appear on one or more workpaper sets for a given capital budget, which links that budget to its Risk Aware Mitigation Phase (RAMP)<sup>2</sup> counterpart risk; those pages show any RAMP-related attributes relevant to the workpaper group in which it is contained. These RAMP pages (identified by the header 'RAMP Item #x' near the top of the page) are provided as a cross reference to the original RAMP Report. There is at least one page for each RAMP item attributed to the workpaper group. The term "Historical Embedded Cost Estimates" refers to that fraction of estimated risk-mitigation costs that are embedded in SoCalGas' 2016 historical costs and is already being performed. For example, if a risk mitigation activity is estimated to have a 2017 total value of \$10, and its 'historical embedded cost estimate' is \$8, then the remaining \$2 would be considered an incremental cost forecast. If the forecast that includes this risk mitigation activity was derived using the 2016 historical value such as an average, a trend, or using 2016 as a starting point (the 'base-year' method), then that \$8 'historical embedded cost estimate' is already included in that underlying forecast and only the \$2 is an estimated incremental new cost. Also as in the response to part t, the values shown in the "Historical Embedded Cost Estimates" section of those pages are transcribed from the previously-submitted RAMP Report and consist of cost estimates developed at that time. These were superseded by the more precise cost estimates developed for the GRC application.

w. Please explain why the Historical Embedded Cost Estimates are estimates and not actual expenditures.

**Response w:** Please refer to the testimony of Jamie York, Exhibit SCG-02-R/SDG&E-02-R Chapter 3: RAMP to GRC integration beginning at page JKY-5 Section D: Incorporation of the RAMP Request into Overall GRC Request. Specifically line 17 on JKY-6 through line 2 on JKY-7 discusses the quantification of BY 2016 expenditures historically devoted to the identified RAMP mitigation activities.

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<sup>2</sup> Id.

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- x. Please explain if the Historical Embedded Cost Estimates were approved by the CPUC.

**Response x:** The Historical Embedded Cost Estimates were prepared for the TY 2019 GRC (see the testimony of Jamie York referenced in response w above). The Rate Case Plan does not include a provision for the Commission to approve historical embedded RAMP estimates. In D.16-06-054, the Commission adopted a test year 2016 revenue requirement for SoCalGas. The expenditures that form the basis for the embedded cost estimates are a portion of SoCalGas' 2016 expenditures within the authorized revenue requirement.

- y. Please explain the Funding Source identified for this project.

**Response y:** Similar to the description in part t, the term "Funding Source" appears on a suffix workpaper page that may appear on one or more workpaper sets for a given capital budget, which links that budget to its Risk Aware Mitigation Phase (RAMP)<sup>3</sup> counterpart risk; those pages show any RAMP-related attributes relevant to the workpaper group in which it is contained. These RAMP pages (identified by the header 'RAMP Item #x' near the top of the page) are provided as a cross reference to the original RAMP Report. There is at least one page for each RAMP item attributed to the workpaper group. The term "Funding Source" refers to regulatory jurisdiction that authorizes the revenue requirement for that activity. For example, the 'Funding Source' of 'CPUC-GRC' indicates that funding for this activity is authorized through the CPUC General Rate Case proceeding and hence is included in these workpapers.

- z. Please explain how this project was scored for safety and risk based on SoCalGas's safety culture and risk assessment. Additionally, please explain how the safety and risk assessments or scores are used to determine the urgency and timing of the projects.

**Response z:** SoCalGas and SDG&E object to this request as out of scope and vague, ambiguous, and unintelligible. Subject to and without waiving the foregoing objection, SoCalGas and SDG&E responds as follows: As described in the RAMP Report, SoCalGas's risk assessment methodology was used to score the overall risks that SoCalGas is managing, not the specific projects that are proposed in the GRC. Furthermore, SoCalGas demonstrated an early attempt at assessing risk mitigations in the RAMP Report. That methodology did not score individual projects, but rather the scoring of the bundle of mitigants facilitated an estimation of how a group of programs/projects may reduce a given risk.

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<sup>3</sup> Id.



**INDICATED SHIPPER DATA REQUEST**

**IS-SCG-004**

**SOCALGAS 2019 GRC – A.17-10-008**

**SOCALGAS RESPONSE**

**DATE RECEIVED: FEBRUARY 28, 2018**

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As such, the urgency and timing of projects is not based on a particular risk assessment or score. However, SoCalGas' annual risk assessment process serves as one of many inputs in considering how investments align with risk priorities by providing an overarching methodology for identifying, evaluating and prioritizing SoCalGas' risks with safety as a top priority. 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.

In addition to considering the risk priorities identified in the annual risk assessment process, factors such as regulatory mandates and execution feasibility may drive the urgency and timing for projects.

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- 4-4. Please refer to the capital workpaper of SoCalGas witness Maria Martinez, Exhibit No. SCG-14-CWP, at pages 10 and 11 of 40 for the RAMP related project, Base BC 276 is TIMP Capital.
- a. Please provide a detailed explanation of the project, identify the safety culture and/or risk metrics that support the Company's decision to include the project in the 2019 GRC, explain the risks that are associated with the project, explain how this project mitigates those risks, and identify the alternatives considered that also meet the safety and risk objectives, and explain why the proposed project is the most reasonable alternative option.
  - b. 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.
  - c. Please provide a detailed breakdown of the cost estimates presented for the capital expenditures shown for 2017, 2018, and 2019.
    - i. Please identify the labor and non-labor expense associated with Hardware, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.
    - ii. Please identify the labor and non-labor expense associated with Software, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.
    - iii. Please identify the labor and non-labor expense associated with Material, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.

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**Question 4.4 - Continued**

- iv. Please identify the labor and non-labor expense associated with Construction, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.
  
- v. Please identify the labor and non-labor expense associated with Environmental Survey/Permitting/Mitigation, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.
  
- vi. Please identify the labor and non-labor expense associated with Land & Right-of-Way Acquisition, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.
  
- vii. Please identify the labor and non-labor expense associated with Company Labor, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.
  
- viii. Please identify the labor and non-labor expense associated with Other (including, but not limited to, Project Management, Engineering, Survey & Design), explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.

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- ix. Please identify the labor and non-labor expense associated with Contractors, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.
- x. Please identify the labor and non-labor expense associated with any additional cost component not included in parts i. through ix. above, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.
- d. Please provide the cost model utilized to determine the cost estimates provided for the forecast capital spend in 2017, 2018, and 2019. If available in Excel spreadsheet format, provide with all formulas and links intact.
- e. 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.
- f. Please explain if there are any overhead adders included in these cost estimates. If so, please explain what overhead is included, what cost components these contingencies are applied to, and why it is required to inflate the cost estimates with overhead adders.
- g. Please explain if there are any additional indirect costs included in these cost estimates not discussed previously.
- h. Please explain if the forecast expenditures for 2017 and 2018 represent projects that have already begun.
- i. Please provide the actual expenditures for 2017.
- j. Please explain if this project represents an on-going cost that will be continued in the future to maintain a safe and reliable system, or if it is a one-time project that is needed to make a specific system component safer.

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**Question 4.4 - Continued**

- k. Please provide a cost estimate forecast of this project for 2020, 2021, and 2022.
- l. Please explain how this project impacts the post-test year capital expenditures.
- m. Please provide all workpapers from the 2016 RAMP Report associated with this project.
- n. Please identify the exact locations in the 2016 RAMP report that discusses this project.
- o. Please explain why this project must be completed in the proposed time frame i.e., during the 2019 GRC cycle, rather than spread over a greater number of years, i.e. during a future GRC cycle.
- p. Is this project mandated by any approved Federal regulations? If so, please identify the regulations and explain how this project makes SoCalGas compliant with these regulations.
- q. Is this project mandated by any approved California regulations? If so, please identify the regulations and explain how this project makes SoCalGas compliant with these regulations.
- r. Is this project mandated by any proposed State or Federal regulations? If so, please identify these proposed regulations and explain how this project makes SoCalGas compliant with these regulations.
- s. 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. Additionally, explain how the scores in these metrics led SoCalGas to the decision that the 2019 GRC was the appropriate time to propose this project.
- t. Please explain what is represented by the “Forecast CPUC Cost Estimates.”
  - i. Please provide all workpapers and cost models associated with developing these cost estimates.
  - ii. Please explain how these cost estimates differ from the capital expenditures being requested in the rate case associated with the same project.

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**Question 4.4 - Continued**

- u. Please explain how the Historical Embedded Cost Estimates were determined.
- v. Please explain how the Historical Embedded Cost Estimates impact the proposed capital expenditures in the rate case.
- w. Please explain why the Historical Embedded Cost Estimates are estimates and not actual expenditures.
- x. Please explain if the Historical Embedded Cost Estimates were approved by the CPUC.
- y. Please explain the Funding Source identified for this project.
- z. Please explain how this project was scored for safety and risk based on SoCalGas's safety culture and risk assessment. Additionally, please explain how the safety and risk assessments or scores are used to determine the urgency and timing of the projects.

**SoCalGas Response 4-4:**

SoCalGas objects to the definitions and instructions submitted by Indicated Shippers on the grounds that they are overbroad and unfairly burdensome. Special interrogatory instructions of this nature are expressly prohibited by California Code of Civil Procedure Section 2030.060(d).

- a. An explanation of RAMP-related projects, the risk(s) associated with the project, how the project mitigates those risk(s), RAMP-related cost breakdowns, and safety culture are provided in Section II of the Direct Testimony of Maria Martinez and the associated workpapers. Additional information with respect to the RAMP risks, such as detailed descriptions about the risk, risk classification, potential drivers, and potential consequences, is included in the risk chapters in the RAMP Report, see <https://www.sdge.com/regulatory-filing/20016/risk-assessment-and-mitigation-phase-report-sdge-socialgas>. The requirement to include alternative mitigation plans is specific to the RAMP showing (see D.16-08-018 at p. 151 and D.14-12-025 at p. 32). Nonetheless, to the extent alternatives were considered when preparing the Test Year 2019 GRC, SoCalGas included such information in Section II of Ms. Martinez's testimony.
- b. Pipeline Integrity utilize a combination of methods to focus on reasonable rates and continuous improvement. On a project-specific basis, this could include RFPs, multiple vendors, Subject Matter Expert consultant/contractor support, and new tools and technologies, or some variation of these approaches.
- c. i through x: SoCalGas does not forecast its labor and nonlabor expenses in this manner or at the level of detail requested for this testimony.

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**SoCalGas Response 4-4:-Continued**

d. SoCalGas' cost modeling in preparation of its forecast capital spending for 2017, 2018, and 2019 consists of several processes and components and is not a single spreadsheet; components of that modeling require network database applications that themselves require enterprise-level software including Microsoft SQL Server, Microsoft Visual Studio and Crystal Report Writer. An active Excel spreadsheet for this entire process does not exist.

e. SoCalGas objects to the portion of the question that asks, “why it is required to inflate the cost estimates with contingency adders,” because 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:

There are no contingency adders included in our cost estimates.

f. 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.

g. There are no additional indirect costs included in these cost estimates.

h. Yes, the forecast expenditures for 2017 and 2018 represent projects that have already begun. The TIMP is an on-going program and will have projects start in one year and completed in another year.

i. Please see the table below.

<u>Exhibit Number</u>	<u>Witness Name</u>	<u>Workpaper</u>	<u>Workpaper Title</u>	Labor	NLbr	NSE	Total
Exh No:SCG-14-CWP	Maria T. Martinez	002760.000	Projs to Sup Trans. - PIP	70	1,254		1,324
		P02760.000	Projs to Sup Trans. - PIP	100	700		800

j. SoCalGas objects to this request pursuant to Rule 10.1 of the Commission’s Rules of Practice and Procedure to the extent it seeks information for a timeframe that is neither relevant to the subject matter involved in this proceeding nor is reasonably calculated to lead to the discovery of admissible evidence. SoCalGas further objects to this request on the grounds that “in the future” is vague and ambiguous, overbroad, and unfairly burdensome. SoCalGas interprets the phrase “in the future” to refer to the GRC cycle at issue in this proceeding. Subject to and without waiving these objections, SoCalGas responds as follows:

The TIMP is federally mandated and represents on-going costs that will continue in the future.

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k. The Test Year 2019 General Rate Case, as presented in A.17-10-007/008, projects for a revenue requirement to be established on January 1, 2019. 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. As such, no 2020, 2021, or 2022 projections are provided for this project. Please see the Direct testimony of Jawaad Malik (Exhibit SCG-44) for Post-Test Year Ratemaking.

l. Details around the Post-Test Year Mechanism and the calculations for Capital and O&M can be found in the Direct Testimony of Jawaad Malik (Exhibit SCG-44).

m. 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).

n. As mentioned in the RAMP Report Chapter A at p. SDGE/SCG A-2, "The purpose of RAMP is not to request funding. Any finding 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 m above.

o. See response to Question 4-4.j.

p. SoCalGas objects to part p of this question 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. Part p of this question seeks legal conclusions, rather than the production of evidence of a factual matter. SoCalGas further objects to part p of this question to the extent it requires SoCalGas to search its files for matters of public record, including in state and federal codes and proceedings (regulations, decisions, orders, etc.). This information is available equally to Indicated Shippers. Subject to and without waiving the foregoing objections, SoCalGas responds as follows:

In addition to the obligation to provide safe and reliable service, the TIMP is federally mandated under 49 C.F.R. Section 192, Subpart P. (please see Ex. SCG-14 p. MTM-iii).



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**SoCalGas Response 4-4:-Continued**

q. SoCalGas objects to part q of this question 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. Part q of this question seeks legal conclusions, rather than the production of evidence of a factual matter. SoCalGas further objects to part q of this question to the extent it requires SoCalGas to search its files for matters of public record, including in state and federal codes and proceedings (regulations, decisions, orders, etc.). This information is available equally to Indicated Shippers. Subject to and without waiving the foregoing objections, SoCalGas responds as follows:

In addition to the obligation to provide safe and reliable service, the TIMP is federally mandated; hence, it requires compliance on a state level.

r. SoCalGas objects to part r of this question 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. Part r of this question seeks legal conclusions, rather than the production of evidence of a factual matter. SoCalGas further objects to part r of this question to the extent it requires SoCalGas to search its files for matters of public record, including in state and federal codes and proceedings (regulations, decisions, orders, etc.). This information is available equally to Indicated Shippers. Subject to and without waiving the foregoing objections, SoCalGas responds as follows:

SoCalGas is unaware of any proposed additional state or federal regulations applicable to TIMP.

s. SoCalGas and SDG&E object to this request as out of scope. 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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**SoCalGas Response 4-4:-Continued**

t. The term "Forecast CPUC Cost Estimates" appears on a suffix workpaper page that may appear on one or more workpaper sets for a given capital budget, which links that budget to its Risk Assessment Mitigation Phase (RAMP)<sup>1</sup> counterpart risk; those pages show any RAMP-related attributes relevant to the workpaper group in which it is contained. These RAMP pages (identified by the header 'RAMP Item #x' near the top of the page) are provided as a cross reference to the original RAMP Report. There is at least one page for each RAMP item attributed to the workpaper group. The term "Forecast CPUC Cost Estimates" refers to those costs that are recoverable through CPUC authorized revenue requirements. There are costs that are excluded from the General Rate Case application because they are funded through other mechanisms, typically another ratemaking proceeding or through another regulatory jurisdiction such as the Federal Energy Regulatory Commission (FERC). The values shown in the "Forecast CPUC Cost Estimates" section of those pages are transcribed from the previously-submitted RAMP Report and consist of ranges of cost estimates to mitigate that particular risk at that time. These were superseded by the updated cost estimates developed for the GRC application.

- i. As described in part d of this response, SoCalGas' cost modeling in preparation of its forecast spending for 2017, 2018 and 2019 consists of several processes and components and is not a single spreadsheet; components of that modeling require network database applications that themselves require enterprise-level software including Microsoft SQL Server, Microsoft Visual Studio and Crystal Report Writer. An active Excel spreadsheet for this entire process does not exist. Workpapers can be found in the volumes served with the original testimony; they are identified as follows:
- The testimony exhibit is SCG-14
  - The corresponding O&M expense workpaper volume is SCG-14-WP
  - The corresponding capital expense workpaper volume is SCG-14-CWP

Most workpaper exhibits do not exist as Excel documents with working formulae. Workpapers and tables that appear in testimony are not created from, nor do they originate as Excel spreadsheets, these are produced from a database system which consists of many data tables that are dynamically linked to permit grouping of cost centers and budgets, editing of historical values, selection of a forecast methodology, adjustments to forecasts and the production of workpapers. The use of a database for this purpose does not involve spreadsheets, the workpapers are formatted 'reports' from that collection of tables and linking relationships that form the database. Data extracts of this type contain only data values, the extract is not capable of producing 'working formulas.'

- ii. Similar to the description in part t, the values shown in the "Forecast CPUC Cost Estimates" section of those pages are transcribed from the previously-submitted RAMP Report and consist of ranges of cost estimates to mitigate that particular risk at that time. These RAMP pages (identified by the header 'RAMP Item #x' near the top of the page) are provided as a cross reference to the original RAMP Report. These are superseded by the more precise cost estimates developed for the GRC application.

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<sup>1</sup> I.16-10-015/I.16-10-016 Risk Assessment and Mitigation Phase Report of San Diego Gas & Electric Company and Southern California Gas Company, November 30, 2016. Please also refer to Exhibit SCG-02/SDG&E-02, Chapter 1 (Diana Day) for more details regarding the utilities' RAMP Report.

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**SoCalGas Response 4-4:-Continued**

u. The Historical Embedded Cost Estimates for Budget Code 276 under this RAMP workpaper are the 2016 historical costs for BC 276 included in Ex. SCG-14-CWP p. 4.

v. Similar to the description in part t of this response, the term "Historical Embedded Cost Estimates" appears on a suffix workpaper page that may appear on one or more workpaper sets for a given capital budget, which links that budget to its Risk Assessment Mitigation Phase (RAMP)<sup>2</sup> counterpart risk; those pages show any RAMP-related attributes relevant to the workpaper group in which it is contained. These RAMP pages (identified by the header 'RAMP Item #x' near the top of the page) are provided as a cross reference to the original RAMP Report. There is at least one page for each RAMP item attributed to the workpaper group. The term "Historical Embedded Cost Estimates" refers to that fraction of estimated risk-mitigation costs that are embedded in SoCalGas' 2016 historical costs and is already being performed. For example, if a risk mitigation activity is estimated to have a 2017 total value of \$10, and its 'historical embedded cost estimate' is \$8, then the remaining \$2 would be considered an incremental cost forecast. If the forecast that includes this risk mitigation activity was derived using the 2016 historical value such as an average, a trend, or using 2016 as a starting point (the 'base-year' method), then that \$8 'historical embedded cost estimate' is already included in that underlying forecast and only the \$2 is an estimated incremental new cost. Also, as in the response to part t, the values shown in the "Historical Embedded Cost Estimates" section of those pages are transcribed from the previously-submitted RAMP Report and consist of cost estimates developed at that time. These were superseded by the more precise cost estimates developed for the GRC application.

w. Please refer to the testimony of Jamie York, Exhibit SCG-02-R/SDG&E-02-R Chapter 3: RAMP to GRC integration beginning at page JKY-5 Section D: Incorporation of the RAMP Request into Overall GRC Request. Specifically, line 17 on JKY-6 through line 2 on JKY-7 discusses the quantification of BY 2016 expenditures historically devoted to the identified RAMP mitigation activities.

x. The Historical Embedded Cost Estimates were prepared for the TY 2019 GRC (see the testimony of Jamie York referenced in response to part w above). The Rate Case Plan does not include a provision for the Commission to approve historical embedded RAMP estimates. In D.16-06-054, the Commission adopted a test year 2016 revenue requirement for SoCalGas. The expenditures that form the basis for the embedded cost estimates are a portion of SoCalGas' 2016 expenditures within the authorized revenue requirement.

y. Similar to the description in part t, the term "Funding Source" appears on a suffix workpaper page that may appear on one or more workpaper sets for a given capital budget, which links that budget to its Risk Assessment Mitigation Phase (RAMP)<sup>3</sup> counterpart risk; those pages show any RAMP-related attributes relevant to the workpaper group in which it is contained. These RAMP pages (identified by the header 'RAMP Item #x' near the top of the page) are provided as a cross reference to the original RAMP Report. There is at least one page for each RAMP item attributed to the workpaper group. The term "Funding Source" refers to regulatory jurisdiction that authorizes the revenue requirement for that activity.

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<sup>2</sup> *Id.*

<sup>3</sup> *Id.*

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**SoCalGas Response 4-4y:-Continued**

For example, the ‘Funding Source’ of ‘CPUC-GRC’ indicates that funding for this activity is authorized through the CPUC General Rate Case proceeding and hence is included in these workpapers.

z. SoCalGas and SDG&E object to this request as out of scope and vague, ambiguous, and unintelligible. Subject to and without waiving the foregoing objection, SoCalGas and SDG&E responds as follows: As described in the RAMP Report, SoCalGas’ risk assessment methodology was used to score the overall risks that SoCalGas is managing, not the specific projects that are proposed in the GRC. Furthermore, SoCalGas demonstrated an early attempt at assessing risk mitigations in the RAMP Report. That methodology did not score individual projects, but rather the scoring of the bundle of mitigants facilitated an estimation of how a group of programs/projects may reduce a given risk.

As such, the urgency and timing of projects is not based on a particular risk assessment or score. However, SoCalGas’ annual risk assessment process serves as one of many inputs in considering how investments align with risk priorities by providing an overarching methodology for identifying, evaluating and prioritizing SoCalGas’ risks with safety as a top priority. 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.

In addition to considering the risk priorities identified in the annual risk assessment process, factors such as regulatory mandates and execution feasibility may drive the urgency and timing for projects.

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4-5. Please refer to the capital workpaper of SoCalGas witness Elizabeth Musich, Exhibit No. SCG-07-CWP, at pages 38 and 39 of 176 for the RAMP related project, Base Blanket WOA.

- a. Please provide a detailed explanation of the project, identify the safety culture and/or risk metrics that support the Company's decision to include the project in the 2019 GRC, explain the risks that are associated with the project, explain how this project mitigates those risks, and identify the alternatives considered that also meet the safety and risk objectives, and explain why the proposed project is the most reasonable alternative option.
- b. 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.
- c. Please provide a detailed breakdown of the cost estimates presented for the capital expenditures shown for 2017, 2018, and 2019.
  - i. Please identify the labor and non-labor expense associated with Hardware, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.
  - ii. Please identify the labor and non-labor expense associated with Software, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.
  - iii. Please identify the labor and non-labor expense associated with Material, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.

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- iv. Please identify the labor and non-labor expense associated with Construction, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.
- v. Please identify the labor and non-labor expense associated with Environmental Survey/Permitting/Mitigation, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.
- vi. Please identify the labor and non-labor expense associated with Land & Right-of-Way Acquisition, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.
- vii. Please identify the labor and non-labor expense associated with Company Labor, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.
- viii. Please identify the labor and non-labor expense associated with Other (including, but not limited to, Project Management, Engineering, Survey & Design), explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.

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- ix. Please identify the labor and non-labor expense associated with Contractors, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.
- x. Please identify the labor and non-labor expense associated with any additional cost component not included in parts i. through ix. above, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.
- d. Please provide the cost model utilized to determine the cost estimates provided for the forecast capital spend in 2017, 2018, and 2019. If available in Excel spreadsheet format, provide with all formulas and links intact.
- e. 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.
- f. Please explain if there are any overhead adders included in these cost estimates. If so, please explain what overhead is included, what cost components these contingencies are applied to, and why it is required to inflate the cost estimates with overhead adders.
- g. Please explain if there are any additional indirect costs included in these cost estimates not discussed previously.
- h. Please explain if the forecast expenditures for 2017 and 2018 represent projects that have already begun.
- i. Please provide the actual expenditures for 2017.

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- j. Please explain if this project represents an on-going cost that will be continued in the future to maintain a safe and reliable system, or if it is a one-time project that is needed to make a specific system component safer.
- k. Please provide a cost estimate forecast of this project for 2020, 2021, and 2022.
- l. Please explain how this project impacts the post-test year capital expenditures.
- m. Please provide all workpapers from the 2016 RAMP Report associated with this project.
- n. Please identify the exact locations in the 2016 RAMP report that discusses this project.
- o. Please explain why this project must be completed in the proposed time frame i.e., during the 2019 GRC cycle, rather than spread over a greater number of years, i.e. during a future GRC cycle.
- p. Is this project mandated by any approved Federal regulations? If so, please identify the regulations and explain how this project makes SoCalGas compliant with these regulations.
- q. Is this project mandated by any approved California regulations? If so, please identify the regulations and explain how this project makes SoCalGas compliant with these regulations.
- r. Is this project mandated by any proposed State or Federal regulations? If so, please identify these proposed regulations and explain how this project makes SoCalGas compliant with these regulations.



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- s. 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. Additionally, explain how the scores in these metrics led SoCalGas to the decision that the 2019 GRC was the appropriate time to propose this project.
  
- t. Please explain what is represented by the “Forecast CPUC Cost Estimates.”
  - i. Please provide all workpapers and cost models associated with developing these cost estimates.
  
  - ii. Please explain how these cost estimates differ from the capital expenditures being requested in the rate case associated with the same project.
  
- u. Please explain how the Historical Embedded Cost Estimates were determined.
  
- v. Please explain how the Historical Embedded Cost Estimates impact the proposed capital expenditures in the rate case.
  
- w. Please explain why the Historical Embedded Cost Estimates are estimates and not actual expenditures.
  
- x. Please explain if the Historical Embedded Cost Estimates were approved by the CPUC.
  
- y. Please explain the Funding Source identified for this project.
  
- z. Please explain how this project was scored for safety and risk based on SoCalGas’s safety culture and risk assessment. Additionally, please explain how the safety and risk assessments or scores are used to determine the urgency and timing of the projects.

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**SoCalGas Response 4-5:**

SoCalGas objects to the definitions and instructions submitted by Indicated Shippers on the grounds that they are overbroad and unfairly burdensome. Special interrogatory instructions of this nature are expressly prohibited by California Code of Civil Procedure Section 2030.060(d).

a. An explanation of RAMP-related projects, the risk(s) associated with the project, how the project mitigates those risk(s), RAMP-related cost breakdowns, and safety culture are provided in Section II of the Direct Testimony of Michael Bermel and Beth Musich and the associated workpapers. Additional information with respect to the RAMP risks, such as detailed descriptions about the risk, risk classification, potential drivers, and potential consequences, is included in the risk chapters in the RAMP Report, see <https://www.sdge.com/regulatory-filing/20016/risk-assessment-and-mitigation-phase-report-sdge-socalgas>. The requirement to include alternative mitigation plans is specific to the RAMP showing (see D.16-08-018 at p. 151 and D.14-12-025 at p. 32). Nonetheless, to the extent alternatives were considered when preparing the Test Year 2019 GRC, SoCalGas included such information in Section II of Mr. Bermel's and Ms. Musich's testimony.

b. As described on page MAB-3 and MAB-4 of SCG-07, the risk-mitigation projects identified as RAMP-related activities are crucial to support the Company's efforts to consistently deliver safe, clean, and reliable natural gas to our customers.

c. i through x: SoCalGas does not forecast its labor and nonlabor expenses in this manner or at the level of detail requested for this testimony.

d. SoCalGas' cost modeling in preparation of its forecast capital spending for 2017, 2018, and 2019 consists of several processes and components and is not a single spreadsheet; components of that modeling require network database applications that themselves require enterprise-level software including Microsoft SQL Server, Microsoft Visual Studio and Crystal Report Writer. An active Excel spreadsheet for this entire process does not exist.

e. SoCalGas objects to the portion of the question that asks, "why it is required to inflate the cost estimates with contingency adders," because 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:

There are no contingency adders included in the cost estimates.

f. 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.

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**SoCalGas Response 4-5 Continued:**

- g. There are no additional indirect costs included in these cost estimates.
- h. Yes, forecast expenditures include projects that have already begun.
- i. Please see the table below.

<u>Exhibit Number</u>	<u>Witness Name</u>	<u>Workpaper</u>	<u>Workpaper Title</u>	Labor	NLbr	NSE	Total
Exh No:SCG-07-CWP	Elizabeth A. Musich	M03120.000	MP PL Rpls / Externally Driven	3,985	28,472	-	32,457

j. SoCalGas objects to this request pursuant to Rule 10.1 of the Commission’s Rules of Practice and Procedure to the extent it seeks information for a timeframe that is neither relevant to the subject matter involved in this proceeding nor is reasonably calculated to lead to the discovery of admissible evidence. SoCalGas further objects to this request on the grounds that “in the future” is vague and ambiguous, overbroad, and unfairly burdensome. SoCalGas interprets the phrase “in the future” to refer to the GRC cycle at issue in this proceeding. Subject to and without waiving these objections, SoCalGas responds as follows: As stated in footnote 8 of the Direct Testimony of RAMP to GRC Integration witness Jamie York (Exhibit SCG-02R/SDG&E-02), "Generally, for capital projects, the RAMP categorization was given either the "Base" or "Incremental" designation. As such, if a capital project is shown as "RAMP Incremental," the amount represents the entire forecasted project costs and may not be limited to the estimated incremental amount of that project." Thus, some of the projects referred to in this question are ongoing and are part of “Base.”

k. The Test Year 2019 General Rate Case as presented in A.17-10-007/008, projects for a revenue requirement to be established on January 1, 2019. 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. As such, no 2020, 2021, or 2022 projections are provided for this project. Please see the Direct testimony of Jawaad Malik (Exhibit SCG-44) for Post-Test Year Ratemaking.

l. Details around the Post-Test Year Mechanism and the calculations for Capital and O&M can be found in the Direct Testimony of Jawaad Malik (Exhibit SCG-44).

m. 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-socialgas>.
- 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.”

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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.)

n. As mentioned in the RAMP Report Chapter A at p. SDGE/SCG A-2, “The purpose of RAMP is not to request funding. Any finding 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 m above.

o. The forecasts provided during the 2019 GRC cycle are anticipated capital investments that align with guidelines set forth by the Transportation Security Administration (TSA) for physical security of critical infrastructure sites and is part of SoCalGas’ plan for operational resiliency

p. SoCalGas objects to part p of this question 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. Part p of this question seeks legal conclusions, rather than the production of evidence of a factual matter. SoCalGas further objects to part p of this question to the extent it requires SoCalGas to search its files for matters of public record, including in state and federal codes and proceedings (regulations, decisions, orders, etc.). This information is available equally to Indicated Shippers. Subject to and without waiving the foregoing objections, SoCalGas responds as follows:

Other than the obligation to provide safe and reliable service, SoCalGas is unaware of any approved Federal regulation mandating the project. The mitigation is, however, a response to the PHMSA Advisory Bulletin issued after the 9/11 attacks from which SoCalGas began to implement TSA Pipeline Security Guidelines.

q. SoCalGas objects to part q of this question 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. Part q of this question seeks legal conclusions, rather than the production of evidence of a factual matter. SoCalGas further objects to part q of this question to the extent it requires SoCalGas to search its files for matters of public record, including in state and federal codes and proceedings (regulations, decisions, orders, etc.). This information is available equally to Indicated Shippers. Subject to and without waiving the foregoing objections, SoCalGas responds as follows:

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Other than the obligation to provide safe and reliable service, SoCalGas is unaware of any approved California regulation mandating the project.

r. SoCalGas objects to part r of this question 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. Part r of this question seeks legal conclusions, rather than the production of evidence of a factual matter. SoCalGas further objects to part r of this question to the extent it requires SoCalGas to search its files for matters of public record, including in state and federal codes and proceedings (regulations, decisions, orders, etc.). This information is available equally to Indicated Shippers. Subject to and without waiving the foregoing objections, SoCalGas responds as follows:

SoCalGas is unaware of any proposed additional state or federal regulations applicable to this project.

s. SoCalGas and SDG&E object to this request as out of scope. 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.

t. The term "Forecast CPUC Cost Estimates" appears on a suffix workpaper page that may appear on one or more workpaper sets for a given capital budget, which links that budget to its Risk Assessment Mitigation Phase (RAMP)<sup>1</sup> counterpart risk; those pages show any RAMP-related attributes relevant to the workpaper group in which it is contained. These RAMP pages (identified by the header 'RAMP Item #x' near the top of the page) are provided as a cross reference to the original RAMP Report. There is at least one page for each RAMP item attributed to the workpaper group. The term "Forecast CPUC Cost Estimates" refers to those costs that are recoverable through CPUC authorized revenue requirements. There are costs that are excluded from the General Rate Case application because they

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<sup>1</sup> I.16-10-015/I.16-10-016 Risk Assessment and Mitigation Phase Report of San Diego Gas & Electric Company and Southern California Gas Company, November 30, 2016. Please also refer to Exhibit SCG-02/SDG&E-02, Chapter 1 (Diana Day) for more details regarding the utilities’ RAMP Report.

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are funded through other mechanisms, typically another ratemaking proceeding or through another regulatory jurisdiction such as the Federal Energy Regulatory Commission (FERC). The values shown in the "Forecast CPUC Cost Estimates" section of those pages are transcribed from the previously-submitted RAMP Report and consist of ranges of cost estimates to mitigate that particular risk at that time. These were superseded by the updated cost estimates developed for the GRC application.

- i. As described in part d of this response, SoCalGas' cost modeling in preparation of its forecast spending for 2017, 2018, and 2019 consists of several processes and components and is not a single spreadsheet; components of that modeling require network database applications that themselves require enterprise-level software including Microsoft SQL Server, Microsoft Visual Studio and Crystal Report Writer. An active Excel spreadsheet for this entire process does not exist. Workpapers can be found in the volumes served with the original testimony, they are identified as follows:

- The testimony exhibit is SCG-7
- The corresponding O&M expense workpaper volume is SCG-7-WP
- The corresponding capital expense workpaper volume is SCG-7-CWP

Most workpaper exhibits do not exist as Excel documents with working formulae.

Workpapers and tables that appear in testimony are not created from, nor do they originate as Excel spreadsheets, these are produced from a database system which consists of many data tables that are dynamically linked to permit grouping of cost centers and budgets, editing of historical values, selection of a forecast methodology, adjustments to forecasts and the production of workpapers. The use of a database for this purpose does not involve spreadsheets, the workpapers are formatted 'reports' from that collection of tables and linking relationships that form the database. Data extracts of this type contain only data values, the extract is not capable of producing 'working formulas.'

- ii. Similar to the description in part t, the values shown in the "Forecast CPUC Cost Estimates" section of those pages are transcribed from the previously-submitted RAMP Report and consist of ranges of cost estimates to mitigate that particular risk at that time. These RAMP pages (identified by the header 'RAMP Item #x' near the top of the page) are provided as a cross reference to the original RAMP Report. These are superseded by the more precise cost estimates developed for the GRC application.

u. The Historical Embedded Cost Estimates are 2016 actuals. Please see page 39 of 176 in SCG-07-CWP.

v. Similar to the description in part t of this response, the term "Historical Embedded Cost Estimates" appears on a suffix workpaper page that may appear on one or more workpaper sets for a given capital budget, which links that budget to its Risk Assessment Mitigation Phase (RAMP)<sup>2</sup> counterpart risk; those pages show any RAMP-related attributes relevant to the workpaper group in which it is

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<sup>2</sup> *Id.*

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contained. These RAMP pages (identified by the header 'RAMP Item #x' near the top of the page) are provided as a cross reference to the original RAMP Report. There is at least one page for each RAMP

item attributed to the workpaper group. The term "Historical Embedded Cost Estimates" refers to that fraction of estimated risk-mitigation costs that are embedded in SoCalGas' 2016 historical costs and is already being performed. For example, if a risk mitigation activity is estimated to have a 2017 total value of \$10, and its 'historical embedded cost estimate' is \$8, then the remaining \$2 would be considered an incremental cost forecast. If the forecast that includes this risk mitigation activity was derived using the 2016 historical value such as an average, a trend, or using 2016 as a starting point (the 'base-year' method), then that \$8 'historical embedded cost estimate' is already included in that underlying forecast and only the \$2 is an estimated incremental new cost. Also, as in the response to part t, the values shown in the "Historical Embedded Cost Estimates" section of those pages are transcribed from the previously-submitted RAMP Report and consist of cost estimates developed at that time. These were superseded by the more precise cost estimates developed for the GRC application.

w. Please refer to the testimony of Jamie York, Exhibit SCG-02-R/SDG&E-02-R Chapter 3: RAMP to GRC integration beginning at page JKY-5 Section D: Incorporation of the RAMP Request into Overall GRC Request. Specifically, line 17 on JKY-6 through line 2 on JKY-7 discusses the quantification of BY 2016 expenditures historically devoted to the identified RAMP mitigation activities.

x. The Historical Embedded Cost Estimates were prepared for the TY 2019 GRC (see the testimony of Jamie York referenced in response to part w above). The Rate Case Plan does not include a provision for the Commission to approve historical embedded RAMP estimates. In D.16-06-054, the Commission adopted a test year 2016 revenue requirement for SoCalGas. The expenditures that form the basis for the embedded cost estimates are a portion of SoCalGas' 2016 expenditures within the authorized revenue requirement.

y. Similar to the description in part t, the term "Funding Source" appears on a suffix workpaper page that may appear on one or more workpaper sets for a given capital budget, which links that budget to its Risk Assessment Mitigation Phase (RAMP)<sup>3</sup> counterpart risk; those pages show any RAMP-related attributes relevant to the workpaper group in which it is contained. These RAMP pages (identified by the header 'RAMP Item #x' near the top of the page) are provided as a cross reference to the original RAMP Report. There is at least one page for each RAMP item attributed to the workpaper group. The term "Funding Source" refers to regulatory jurisdiction that authorizes the revenue requirement for that activity. For example, the 'Funding Source' of 'CPUC-GRC' indicates that funding for this activity is authorized through the CPUC General Rate Case proceeding and hence is included in these workpapers.

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<sup>3</sup> *Id.*

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**SoCalGas Response 4-5 Continued:**

z. SoCalGas and SDG&E object to this request as out of scope and vague, ambiguous, and unintelligible. Subject to and without waiving the foregoing objection, SoCalGas and SDG&E responds as follows: As described in the RAMP Report, SoCalGas' risk assessment methodology was used to score the overall risks that SoCalGas is managing, not the specific projects that are proposed in the GRC. Furthermore, SoCalGas demonstrated an early attempt at assessing risk mitigations in the RAMP Report. That methodology did not score individual projects, but rather the scoring of the bundle of mitigants facilitated an estimation of how a group of programs/projects may reduce a given risk.

As such, the urgency and timing of projects is not based on a particular risk assessment or score. However, SoCalGas' annual risk assessment process serves as one of many inputs in considering how investments align with risk priorities by providing an overarching methodology for identifying, evaluating and prioritizing SoCalGas' risks with safety as a top priority. 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.

In addition to considering the risk priorities identified in the annual risk assessment process, factors such as regulatory mandates and execution feasibility may drive the urgency and timing for projects.



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4-6. Please refer to the capital workpaper of SCG witness Gina Orozco-Meija, Exhibit No. SCG-04-CWP, at pages 100 and 101 of 239 for the RAMP related project, Base –Risk ID SCG-10/SCG Medium Pressure Pipeline Failure – Cathodic Protection.

- a. Please provide a detailed explanation of the project, identify the safety culture and/or risk metrics that support the Company’s decision to include the project in the 2019 GRC, explain the risks that are associated with the project, explain how this project mitigates those risks, and identify the alternatives considered that also meet the safety and risk objectives, and explain why the proposed project is the most reasonable alternative option.
- b. 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.
- c. Please provide a detailed breakdown of the cost estimates presented for the capital expenditures shown for 2017, 2018, and 2019.
  - i. Please identify the labor and non-labor expense associated with Hardware, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.
  - ii. Please identify the labor and non-labor expense associated with Software, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.
  - iii. Please identify the labor and non-labor expense associated with Material, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.

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- iv. Please identify the labor and non-labor expense associated with Construction, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.
- v. Please identify the labor and non-labor expense associated with Environmental Survey/Permitting/Mitigation, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.
- vi. Please identify the labor and non-labor expense associated with Land & Right-of-Way Acquisition, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.
- vii. Please identify the labor and non-labor expense associated with Company Labor, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.
- viii. Please identify the labor and non-labor expense associated with Other (including, but not limited to, Project Management, Engineering, Survey & Design), explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.

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- ix. Please identify the labor and non-labor expense associated with Contractors, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.
  - x. Please identify the labor and non-labor expense associated with any additional cost component not included in parts i. through ix. above, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.
- d. Please provide the cost model utilized to determine the cost estimates provided for the forecast capital spend in 2017, 2018, and 2019. If available in Excel spreadsheet format, provide with all formulas and links intact.
  - e. 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.
  - f. Please explain if there are any overhead adders included in these cost estimates. If so, please explain what overhead is included, what cost components these contingencies are applied to, and why it is required to inflate the cost estimates with overhead adders.
  - g. Please explain if there are any additional indirect costs included in these cost estimates not discussed previously.
  - h. Please explain if the forecast expenditures for 2017 and 2018 represent projects that have already begun.
  - i. Please provide the actual expenditures for 2017.

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- j. Please explain if this project represents an on-going cost that will be continued in the future to maintain a safe and reliable system, or if it is a one-time project that is needed to make a specific system component safer.
- k. Please provide a cost estimate forecast of this project for 2020, 2021, and 2022.
- l. Please explain how this project impacts the post-test year capital expenditures.
- m. Please provide all workpapers from the 2016 RAMP Report associated with this project.
- n. Please identify the exact locations in the 2016 RAMP report that discusses this project.
- o. Please explain why this project must be completed in the proposed time frame i.e., during the 2019 GRC cycle, rather than spread over a greater number of years, i.e. during a future GRC cycle.
- p. Is this project mandated by any approved Federal regulations? If so, please identify the regulations and explain how this project makes SoCalGas compliant with these regulations.
- q. Is this project mandated by any approved California regulations? If so, please identify the regulations and explain how this project makes SoCalGas compliant with these regulations.
- r. Is this project mandated by any proposed State or Federal regulations? If so, please identify these proposed regulations and explain how this project makes SoCalGas compliant with these regulations.
- s. 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. Additionally, explain how the scores in these metrics led SoCalGas to the decision that the 2019 GRC was the appropriate time to propose this project.

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- t. Please explain what is represented by the “Forecast CPUC Cost Estimates.”
  - i. Please provide all workpapers and cost models associated with developing these cost estimates.
  - ii. Please explain how these cost estimates differ from the capital expenditures being requested in the rate case associated with the same project.
- u. Please explain how the Historical Embedded Cost Estimates were determined.
- v. Please explain how the Historical Embedded Cost Estimates impact the proposed capital expenditures in the rate case.
- w. Please explain why the Historical Embedded Cost Estimates are estimates and not actual expenditures.
- x. Please explain if the Historical Embedded Cost Estimates were approved by the CPUC.
- y. Please explain the Funding Source identified for this project.
- z. Please explain how this project was scored for safety and risk based on SoCalGas’s safety culture and risk assessment. Additionally, please explain how the safety and risk assessments or scores are used to determine the urgency and timing of the projects.

**SoCalGas Response 4-6:**

SoCalGas objects to the definitions and instructions submitted by Indicated Shippers on the grounds that they are overbroad and unfairly burdensome. Special interrogatory instructions of this nature are expressly prohibited by California Code of Civil Procedure Section 2030.060(d).

- a. An explanation of RAMP-related projects, the risk(s) associated with the project, how the project mitigates those risk(s), RAMP-related cost breakdowns, and safety culture are provided in Section II of the Direct Revised Testimony of Gina Orozco-Mejia and the associated workpapers. Additional information with respect to the RAMP risks, such as detailed descriptions about the risk, risk classification, potential drivers, and potential consequences, is included in the risk chapters in the RAMP Report, see <https://www.sdge.com/regulatory-filing/20016/risk-assessment-and-mitigation-phase-report-sdge-socalgas>. The requirement to include alternative mitigation plans is specific to the RAMP showing (see D.16-08-018 at p. 151 and D.14-12-025 at p. 32). Nonetheless, to the extent alternatives were considered when preparing the Test Year 2019 GRC, SoCalGas included such information in Section II of Ms. Orozco-Mejia’s testimony.

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- b. As described on pg. 101 of Ex. SCG-04-CWP, SoCalGas assumed that a portion (\$3,727,000) of the RAMP-related cost forecast for Risk ID SCG-10/SCG Medium-Pressure Pipeline Failure - Cathodic Protection was embedded in the base forecast for the capital Cathodic Protection category, thus reducing the incremental impact from this RAMP Risk on the funding request.
- c. SoCalGas did not forecast its labor and nonlabor expenses in this manner or at the level of detail requested for this testimony. Please see <https://socalgas.com/regulatory/I16-10-016.shtml> for more information on RAMP’s Risk ID SCG-10/SCG Medium Pressure Pipeline Failure – Cathodic Protection.
- d. SoCalGas' cost modeling in preparation of its forecast capital spending for 2017, 2018 and 2019 consists of several processes and components and is not a single spreadsheet; components of that modeling require network database applications that themselves require enterprise-level software including Microsoft SQL Server, Microsoft Visual Studio and Crystal Report Writer. An active Excel spreadsheet for this entire process does not exist.
- e. There are no contingency adders included in the cost estimates provided.
- f. 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 work category, as shown in the applicable capital workpaper.
- g. There are no additional indirect costs included in these cost estimates.
- h. The forecast includes projects that were initiated in 2017 and 2018. These projects are ongoing or have been completed. Please refer to Ex. SCG-04-R page GOM-113 for further details with regards to the activities within this RAMP baseline mitigation.
- i. Please see the table below.

		(In Thousands and in 2016 \$)			
<u>Workpaper</u>	<u>Workpaper Title</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>
001730.000	Cathodic Protection (CP) Capital	275	7,989		8,264

- j. SoCalGas objects to this request pursuant to Rule 10.1 of the Commission’s Rules of Practice and Procedure to the extent it seeks information for a timeframe that is neither relevant to the subject matter involved in this proceeding nor is reasonably calculated to lead to the discovery of admissible evidence. SoCalGas further objects to this request on the grounds that “in the future” is vague and ambiguous, overbroad, and unfairly burdensome. SoCalGas interprets the phrase “in the future” to refer to the GRC cycle at issue in this proceeding. Subject to and without waiving these objections, SoCalGas responds as follows:

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**SoCalGas Response 4-6.j:-Continued**

Cathodic Protection is a baseline RAMP activity. These are on-going costs in compliance with the Code of Federal Regulations, CFR 49 Part 192 Subpart I –Requirements for Corrosion Control Operations, to maintain a safe and reliable system, and CPUC General Order (GO) 112-F.

- k. The Test Year 2019 General Rate Case, as presented in A.17-10-007/008, projects for a revenue requirement to be established on January 1, 2019. 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. As such, no 2020, 2021, or 2022 projections are provided for this project. Please see the Direct Testimony of Jawaad Malik (Exhibit SCG-44) for Post-Test Year Ratemaking.
- l. Details around the Post-Test Year Mechanism and the calculations for Capital and O&M can be found in the Direct Testimony of Jawaad Malik (Exhibit SCG-44).
- m. 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-socialgas>.
  - 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.)

- n. As mentioned in the RAMP Report Chapter A at p. SDGE/SCG A-2, “The purpose of RAMP is not to request funding. Any finding requests will be made in the GRC. RAMP mitigation forecasts are provided 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 m above.

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**SoCalGas Response 4-6:-Continued**

- o. Cathodic Protection is a baseline RAMP activity. These are on-going costs in compliance with the Code of Federal Regulations, CFR 49 Part 192 Subpart I –Requirements for Corrosion Control Operations, to maintain a safe and reliable system, and CPUC GO 112-F; thus, cathodic protection work will continue beyond this GRC cycle.
  
- p. SoCalGas objects to part p of this question 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. Part p of this question seeks legal conclusions, rather than the production of evidence of a factual matter. SoCalGas further objects to part p of this question to the extent it requires SoCalGas to search its files for matters of public record, including in state and federal codes and proceedings (regulations, decisions, orders, etc.). This information is available equally to Indicated Shippers. Subject to and without waiving the foregoing objections, SoCalGas responds as follows:

In addition to the obligation to provide safe and reliable service, this RAMP mitigation is mandated by the Code of Federal Regulation 49, Subtitle B, Chapter I, Subchapter D, Part 192, Subpart I – Requirements for Corrosion Control. The scope of the mandate is as follows:

Section 192.451- Scope

*(a) This subpart prescribes minimum requirements for the protection of metallic pipelines from external, internal, and atmospheric corrosion.*

This RAMP Mitigation is a comprehensive process promoting safety culture. In compliance with the Requirements for Corrosion Control, part of the goals in this mitigation process is to identify risks that can damage or disrupt pipelines or even injure third parties and the general public at large and to address these risks proactively. These safety measures compliment and augment the requirements laid out for corrosion control.

- q. SoCalGas objects to part p of this question 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. Part p of this question seeks legal conclusions, rather than the production of evidence of a factual matter. SoCalGas further objects to part p of this question to the extent it requires SoCalGas to search its files for matters of public record, including in state and federal codes and proceedings (regulations, decisions, orders, etc.). This information is available equally to Indicated Shippers. Subject to and without waiving the foregoing objections, SoCalGas responds as follows:

In addition to the obligation to provide safe and reliable service, SoCalGas' daily Cathodic Protection activities proactively conserve, protect, and maximize the performance and age of its pipelines. In compliance with GO 112-F, these activities seek to maintain the facilities and operations allowing for safe and efficient gas distribution for customers and to prolong the longevity of the pipeline system.



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**SoCalGas Response 4-6.q:-Continued**

SoCalGas' daily Cathodic Protection activities follows CPUC GO 112-F. Subpart A-General 101.2 states the following:

*101.2 These rules are incorporated in addition to the Federal Pipeline Safety Regulations, specifically, Title 49 of the Code of Federal Regulations (49 CFR), Parts 191, 192, 193, and 199, which also govern the Design, Construction, Testing, Operation, and Maintenance of Gas Piping Systems in the State of California. These rules do not supersede the Federal Pipeline Safety Regulations, but are supplements to the Federal Regulations. Absent modifications to 49 CFR by this General Order, the requirements and definitions within 49 CFR, Parts 191, 192, 193 and 199 prevail.*

- r. SoCalGas objects to part q of this question 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. Part q of this question seeks legal conclusions, rather than the production of evidence of a factual matter. SoCalGas further objects to part q of this question to the extent it requires SoCalGas to search its files for matters of public record, including in state and federal codes and proceedings (regulations, decisions, orders, etc.). This information is available equally to Indicated Shippers. Subject to and without waiving the foregoing objections, SoCalGas responds as follows:

SoCalGas is not aware of any proposed State or Federal regulations that mandate this work.

- s. SoCalGas and SDG&E object to this request as out of scope. Subject to and without waiving the foregoing objection, SoCalGas and SDG&E respond 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.
- t. The term "Forecast CPUC Cost Estimates" appears on a suffix workpaper page that may appear on one or more workpaper sets for a given capital budget, which links that budget to its Risk Assessment Mitigation Phase (RAMP) counterpart risk; those pages show any RAMP-related attributes relevant to the workpaper group in which it is contained.

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**SoCalGas Response 4-6.t:**

These RAMP pages (identified by the header 'RAMP Item #x' near the top of the page) are provided as a cross reference to the original RAMP Report. There is at least one page for each RAMP item attributed to the workpaper group. The term "Forecast CPUC Cost Estimates" refers to those costs that are recoverable through CPUC-authorized revenue requirements. There are costs that are excluded from the General Rate Case application because they are funded through other mechanisms, typically another ratemaking proceeding or through another regulatory jurisdiction such as the Federal Energy Regulatory Commission (FERC). The values shown in the "Forecast CPUC Cost Estimates" section of those pages are transcribed from the previously-submitted RAMP Report and consist of ranges of cost estimates to mitigate that particular risk at that time. These were superseded by the updated cost estimates developed for the GRC application. See I.16-10-015/I.16-10-016 Risk Assessment and Mitigation Phase Report of San Diego Gas & Electric Company and Southern California Gas Company, November 30, 2016. Please also refer to Exhibit SCG-02-R/SDG&E-02-R, Chapter 1 (Diana Day) for more details regarding the utilities' RAMP Report.

- i. As described in part d of this response, SoCalGas' cost modeling in preparation of its forecast spending for 2017, 2018, and 2019 consists of several processes and components and is not a single spreadsheet; components of that modeling require network database applications that themselves require enterprise-level software including Microsoft SQL Server, Microsoft Visual Studio and Crystal Report Writer. An active Excel spreadsheet for this entire process does not exist. Workpapers can be found in the volumes served with the original testimony; they are identified as follows:
  - The testimony exhibit is SCG-[04]
  - The corresponding O&M expense workpaper volume is SCG-[04]-WP
  - The corresponding capital expense workpaper volume is SCG-[04]-CWP

Most workpaper exhibits do not exist as Excel documents with working formulae. Workpapers and tables that appear in testimony are not created from, nor do they originate as Excel spreadsheets, these are produced from a database system which consists of many data tables that are dynamically linked to permit grouping of cost centers and budgets, editing of historical values, selection of a forecast methodology, adjustments to forecasts and the production of workpapers. The use of a database for this purpose does not involve spreadsheets, the workpapers are formatted 'reports' from that collection of tables and linking relationships that form the database. Data extracts of this type contain only data values, the extract is not capable of producing 'working formulas.'

- ii. Similar to the description in part t of this response, the values shown in the "Forecast CPUC Cost Estimates" section of those pages are transcribed from the previously-submitted RAMP Report and consist of ranges of cost estimates to mitigate that particular risk at that time. These RAMP pages (identified by the header 'RAMP Item #x' near the top of the page) are provided as a cross reference to the original RAMP Report. These are superseded by the more precise cost estimates developed for the GRC application.

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**SoCalGas Response 4-6:**

- u. Cathodic Protection RAMP-related capital was forecast to continue at the 2015 spend level in 2016. The embedded cost estimate for 2016 was calculated by applying an inflation factor to the adjusted 2015 actuals. Please refer to the RAMP workpaper in Ex. SCG-04-CWP page 101 of 239.
- v. Similar to the description in part t of this response, the term "Historical Embedded Cost Estimates" appears on a suffix workpaper page that may appear on one or more workpaper sets for a given capital budget, which links that budget to its Risk Assessment Mitigation Phase (RAMP) counterpart risk; those pages show any RAMP-related attributes relevant to the workpaper group in which it is contained. These RAMP pages (identified by the header 'RAMP Item #x' near the top of the page) are provided as a cross reference to the original RAMP Report. There is at least one page for each RAMP item attributed to the workpaper group. The term "Historical Embedded Cost Estimates" refers to that fraction of estimated risk-mitigation costs that are embedded in SoCalGas' 2016 historical costs and is already being performed. For example, if a risk mitigation activity is estimated to have a 2017 total value of \$10, and its 'historical embedded cost estimate' is \$8, then the remaining \$2 would be considered an incremental cost forecast. If the forecast that includes this risk mitigation activity was derived using the 2016 historical value such as an average, a trend, or using 2016 as a starting point (the 'base-year' method), then that \$8 'historical embedded cost estimate' is already included in that underlying forecast and only the \$2 is an estimated incremental new cost. Also, as in the response to part t, the values shown in the "Historical Embedded Cost Estimates" section of those pages are transcribed from the previously-submitted RAMP Report and consist of cost estimates developed at that time. These were superseded by the more precise cost estimates developed for the GRC application. See I.16-10-015/I.16-10-016 Risk Assessment and Mitigation Phase Report of San Diego Gas & Electric Company and Southern California Gas Company, November 30, 2016. Please also refer to Exhibit SCG-02-R/SDG&E-02-R, Chapter 1 (Diana Day) for more details regarding the utilities' RAMP Report.
- w. Please refer to the testimony of Jamie York, Exhibit SCG-02-R/SDG&E-02-R Chapter 3: RAMP to GRC integration beginning at page JKY-5 Section D: Incorporation of the RAMP Request into Overall GRC Request. Specifically, line 17 on JKY-6 through line 2 on JKY-7 discusses the quantification of BY 2016 expenditures historically devoted to the identified RAMP mitigation activities.
- x. The Historical Embedded Cost Estimates were prepared for the TY 2019 GRC (see the testimony of Jamie York referenced in response to part w above). The Rate Case Plan does not include a provision for the Commission to approve historical embedded RAMP estimates. In D.16-06-054, the Commission adopted a test year 2016 revenue requirement for SoCalGas. The expenditures that form the basis for the embedded cost estimates are a portion of SoCalGas' 2016 expenditures within the authorized revenue requirement.
- y. Similar to the description in part t of this response, the term "Funding Source" appears on a suffix workpaper page that may appear on one or more workpaper sets for a given capital budget, which links that budget to its Risk Assessment Mitigation Phase (RAMP) counterpart risk; those pages show any RAMP-related attributes relevant to the workpaper group in which it is contained. These RAMP pages (identified by the header 'RAMP Item #x' near the top of the page) are provided as a cross reference to the original RAMP Report.

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**SoCalGas Response 4-6.y:**

There is at least one page for each RAMP item attributed to the workpaper group. The term "Funding Source" refers to regulatory jurisdiction that authorizes the revenue requirement for that activity. For example, the 'Funding Source' of 'CPUC-GRC' indicates that funding for this activity is authorized through the CPUC General Rate Case proceeding and hence is included in these workpapers.

- z. SoCalGas and SDG&E object to this request as out of scope and vague and ambiguous. Subject to and without waiving the foregoing objection, SoCalGas and SDG&E responds as follows: As described in the RAMP Report, SoCalGas's risk assessment methodology was used to score the overall risks that SoCalGas is managing, not the specific projects that are proposed in the GRC. Furthermore, SoCalGas demonstrated an early attempt at assessing risk mitigations in the RAMP Report. That methodology did not score individual projects, but rather the scoring of the bundle of mitigants facilitated an estimation of how a group of programs/projects may reduce a given risk.

As such, the urgency and timing of projects is not based on a particular risk assessment or score. However, SoCalGas' annual risk assessment process serves as one of many inputs in considering how investments align with risk priorities by providing an overarching methodology for identifying, evaluating and prioritizing SoCalGas' risks with safety as a top priority. 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.

In addition to considering the risk priorities identified in the annual risk assessment process, factors such as regulatory mandates and execution feasibility may drive the urgency and timing for projects.

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- 4-7. Please refer to the capital workpaper of SCG witness Christopher Olmsted, Exhibit No. SCG-26-CWP, at pages 638 and 639 of 871 for the RAMP related project, Incremental 19070 High Pressure Construction (Move from My Projects to SAP).
- a. Please provide a detailed explanation of the project, identify the safety culture and/or risk metrics that support the Company's decision to include the project in the 2019 GRC, explain the risks that are associated with the project, explain how this project mitigates those risks, and identify the alternatives considered that also meet the safety and risk objectives, and explain why the proposed project is the most reasonable alternative option.
  - b. 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.
  - c. Please provide a detailed breakdown of the cost estimates presented for the capital expenditures shown for 2017, 2018, and 2019.
    - i. Please identify the labor and non-labor expense associated with Hardware, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.
    - ii. Please identify the labor and non-labor expense associated with Software, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.
    - iii. Please identify the labor and non-labor expense associated with Material, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.

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- iv. Please identify the labor and non-labor expense associated with Construction, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.
- v. Please identify the labor and non-labor expense associated with Environmental Survey/Permitting/Mitigation, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.
- vi. Please identify the labor and non-labor expense associated with Land & Right-of-Way Acquisition, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.
- vii. Please identify the labor and non-labor expense associated with Company Labor, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.
- viii. Please identify the labor and non-labor expense associated with Other (including, but not limited to, Project Management, Engineering, Survey & Design), explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.

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- ix. Please identify the labor and non-labor expense associated with Contractors, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.
- x. Please identify the labor and non-labor expense associated with any additional cost component not included in parts i. through ix. above, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.
- d. Please provide the cost model utilized to determine the cost estimates provided for the forecast capital spend in 2017, 2018, and 2019. If available in Excel spreadsheet format, provide with all formulas and links intact.
- e. 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.
- f. Please explain if there are any overhead adders included in these cost estimates. If so, please explain what overhead is included, what cost components these contingencies are applied to, and why it is required to inflate the cost estimates with overhead adders.
- g. Please explain if there are any additional indirect costs included in these cost estimates not discussed previously.
- h. Please explain if the forecast expenditures for 2017 and 2018 represent projects that have already begun.
- i. Please provide the actual expenditures for 2017.

**Question 4.7 – Continued**

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- j. Please explain if this project represents an on-going cost that will be continued in the future to maintain a safe and reliable system, or if it is a one-time project that is needed to make a specific system component safer.
- k. Please provide a cost estimate forecast of this project for 2020, 2021, and 2022.
- l. Please explain how this project impacts the post-test year capital expenditures.
- m. Please provide all workpapers from the 2016 RAMP Report associated with this project.
- n. Please identify the exact locations in the 2016 RAMP report that discusses this project.
- o. Please explain why this project must be completed in the proposed time frame i.e., during the 2019 GRC cycle, rather than spread over a greater number of years, i.e. during a future GRC cycle.
- p. Is this project mandated by any approved Federal regulations? If so, please identify the regulations and explain how this project makes SoCalGas compliant with these regulations.
- q. Is this project mandated by any approved California regulations? If so, please identify the regulations and explain how this project makes SoCalGas compliant with these regulations.
- r. Is this project mandated by any proposed State or Federal regulations? If so, please identify these proposed regulations and explain how this project makes SoCalGas compliant with these regulations.
- s. 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. Additionally, explain how the scores in these metrics led SoCalGas to the decision that the 2019 GRC was the appropriate time to propose this project.



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- t. Please explain what is represented by the “Forecast CPUC Cost Estimates.”
  - i. Please provide all workpapers and cost models associated with developing these cost estimates.
  - ii. Please explain how these cost estimates differ from the capital expenditures being requested in the rate case associated with the same project.
- u. Please explain how the Historical Embedded Cost Estimates were determined.
- v. Please explain how the Historical Embedded Cost Estimates impact the proposed capital expenditures in the rate case.
- w. Please explain why the Historical Embedded Cost Estimates are estimates and not actual expenditures.
- x. Please explain if the Historical Embedded Cost Estimates were approved by the CPUC.
- y. Please explain the Funding Source identified for this project.
- z. Please explain how this project was scored for safety and risk based on SoCalGas’s safety culture and risk assessment. Additionally, please explain how the safety and risk assessments or scores are used to determine the urgency and timing of the projects.

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**SoCalGas Response 4-7:**

SoCalGas objects to the definitions and instructions submitted by Indicated Shippers on the grounds that they are overbroad and unduly burdensome. Special interrogatory instructions of this nature are expressly prohibited by California Code of Civil Procedure Section 2030.060(d).

- a. An explanation of RAMP-related projects, the risk(s) associated with the project, how the project mitigates those risk(s), RAMP-related cost breakdowns, and safety culture are provided in Section II of the Direct Testimony of Christopher Olmsted and the associated workpapers. Additional information with respect to the RAMP risks, such as detailed descriptions about the risk, risk classification, potential drivers, and potential consequences, is included in the risk chapters in the RAMP Report, see <https://www.sdge.com/regulatory-filing/20016/risk-assessment-and-mitigation-phase-report-sdge-socalgas>. The requirement to include alternative mitigation plans is specific to the RAMP showing (see D.16-08-018 at p. 151 and D.14-12-025 at p. 32). Nonetheless, to the extent alternatives were considered when preparing the Test Year 2019 GRC, SoCalGas included such information in Section II of Mr. Olmsted's testimony. Please also see Exhibit SCG-26-CWP at page 633.
- b. This project utilizes a combination of methods to focus on reasonable rates and continuous improvement. This initiative is associated with one of the Fuel our Future efforts. The new guidelines' intent is to make the High-Pressure Construction Project Management consistent between various groups - PSEP, Major Projects, etc. As a result, we must modify our Systems that are used by project teams, specifically, the system called MyProject. The objective of this initiative is to develop and implement a step-by-step guide and project framework to ensure a consistent approach for planning, monitoring, controlling, and reporting on major natural gas infrastructure projects across the utilities. The guide will be a centralized and scalable online resource/tool, the Project Management Resource Site (PMRS), that will contain instructions, deliverables, templates, links to manuals, and training. Please refer to the Direct Testimony of Christopher Olmsted for additional detail about this FOF initiative.
- c. . i through x: SoCalGas does not forecast its labor and nonlabor expenses in this manner or at the level of detail requested for this testimony.
- d. SoCalGas' cost modeling in preparation of its forecast capital spending for 2017, 2018, and 2019 consists of several processes and components and is not a single spreadsheet; components of that modeling require network database applications that themselves require enterprise-level software including Microsoft SQL Server, Microsoft Visual Studio and Crystal Report Writer. An active Excel spreadsheet for this entire process does not exist.
- e. SoCalGas objects to the portion of the question that asks, "why it is required to inflate the cost estimates with contingency adders," because the question is argumentative and 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:

A 10% contingency was included in the cost estimate to cover development and testing hours.

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**SoCalGas Response 4-7 Continued:**

- f. 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.
- g. There are no additional indirect costs included in these cost estimates.
- h. The project has not begun.
- i. Please see the table below.

<u>Exhibit Number</u>	<u>Witness Name</u>	<u>Workpaper</u>	<u>Workpaper Title</u>	Lab or	NLb r	NS E	Tota l
Exh No:SCG- 26-CWP	Christopher R. Olmsted	007760. 000	Applications - Utility Operations/Reliability/Impr	4,59 5	20,6 07	-	25,2 01

- j. SoCalGas objects to this request pursuant to Rule 10.1 of the Commission’s Rules of Practice and Procedure to the extent it seeks information for a timeframe that is neither relevant to the subject matter involved in this proceeding nor is reasonably calculated to lead to the discovery of admissible evidence. SoCalGas further objects to this request on the grounds that “in the future” is vague and ambiguous, overbroad, and unduly burdensome. SoCalGas interprets the phrase “in the future” to refer to the GRC cycle at issue in this proceeding. Subject to and without waiving these objections, SoCalGas responds as follows:

This project is a one-time project.

- k. The Test Year 2019 General Rate Case, as presented in A.17-10-007/008, forecasts a revenue requirement to be established on January 1, 2019. 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. As such, no 2020, 2021, or 2022 projections are provided for this project. Please see the Direct testimony of Jawaad Malik (Exhibit SCG-44) for Post-Test Year Ratemaking.
- l. Details around the Post-Test Year Mechanism and the calculations for Capital and O&M can be found in the Direct Testimony of Jawaad Malik (Exhibit SCG-44).

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**SoCalGas Response 4-7 Continued:**

- m. 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.)

- n. 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 m above.
- o. This project must be completed in the proposed timeframe due to ongoing focus on accurate reporting and consistent system data entry.
- p. SoCalGas objects to part p of this question 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. Part p of this question seeks legal conclusions, rather than the production of evidence of a factual matter. SoCalGas further objects to part p of this question to the extent it requires SoCalGas to search its files for matters of public record, including in state and federal codes and proceedings (regulations, decisions, orders, etc.). This information is available equally to Indicated Shippers. Subject to and without waiving the foregoing objections, SoCalGas responds as follows:

Other than the obligation to provide safe and reliable service, SoCalGas is unaware of any approved federal regulations mandating this project.

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**SoCalGas Response 4-7 Continued:**

- q. SoCalGas objects to part q of this question 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. Part q of this question seeks legal conclusions, rather than the production of evidence of a factual matter. SoCalGas further objects to part q of this question to the extent it requires SoCalGas to search its files for matters of public record, including in state and federal codes and proceedings (regulations, decisions, orders, etc.). This information is available equally to Indicated Shippers. Subject to and without waiving the foregoing objections, SoCalGas responds as follows:

In addition to the obligation to provide safe and reliable service, this project helps support SB 1371's best practices by scheduling projects, bundling projects, and reducing greenhouse gas emissions.

- r. SoCalGas objects to part r of this question 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. Part r of this question seeks legal conclusions, rather than the production of evidence of a factual matter. SoCalGas further objects to part r of this question to the extent it requires SoCalGas to search its files for matters of public record, including in state and federal codes and proceedings (regulations, decisions, orders, etc.). This information is available equally to Indicated Shippers. Subject to and without waiving the foregoing objections, SoCalGas responds as follows:

SoCalGas is unaware of any proposed state or federal regulations mandating this project.

- s. SoCalGas and SDG&E object to this request as out of scope. 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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**SoCalGas Response 4-7 Continued:**

- t. The term "Forecast CPUC Cost Estimates" appears on a suffix workpaper page that may appear on one or more workpaper sets for a given capital budget, which links that budget to its Risk Assessment Mitigation Phase (RAMP)<sup>1</sup> counterpart risk; those pages show any RAMP-related attributes relevant to the workpaper group in which it is contained. These RAMP pages (identified by the header 'RAMP Item #x' near the top of the page) are provided as a cross reference to the original RAMP Report. There is at least one page for each RAMP item attributed to the workpaper group. The term "Forecast CPUC Cost Estimates" refers to those costs that are recoverable through CPUC authorized revenue requirements. There are costs that are excluded from the General Rate Case application because they are funded through other mechanisms, typically another ratemaking proceeding or through another regulatory jurisdiction such as the Federal Energy Regulatory Commission (FERC). The values shown in the "Forecast CPUC Cost Estimates" section of those pages are transcribed from the previously-submitted RAMP Report and consist of ranges of cost estimates to mitigate that particular risk at that time. These were superseded by the updated cost estimates developed for the GRC application.
- i. As described in part d of this response, SoCalGas' cost modeling in preparation of its forecast spending for 2017, 2018, and 2019 consists of several processes and components and is not a single spreadsheet; components of that modeling require network database applications that themselves require enterprise-level software including Microsoft SQL Server, Microsoft Visual Studio and Crystal Report Writer. An active Excel spreadsheet for this entire process does not exist. Workpapers can be found in the volumes served with the original testimony; they are identified as follows:
- The testimony exhibit is SCG-26
  - The corresponding O&M expense workpaper volume is SCG-26-WP
  - The corresponding capital expense workpaper volume is SCG-26-CWP

Most workpaper exhibits do not exist as Excel documents with working formulae. Workpapers and tables that appear in testimony are not created from, nor do they originate as Excel spreadsheets, these are produced from a database system which consists of many data tables that are dynamically linked to permit grouping of cost centers and budgets, editing of historical values, selection of a forecast methodology, adjustments to forecasts and the production of workpapers. The use of a database for this purpose does not involve spreadsheets, the workpapers are formatted 'reports' from that collection of tables and linking relationships that form the database. Data extracts of this type contain only data values, the extract is not capable of producing 'working formulas.'

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<sup>1</sup> I.16-10-015/I.16-10-016 Risk Assessment and Mitigation Phase Report of San Diego Gas & Electric Company and Southern California Gas Company, November 30, 2016. Please also refer to Exhibit SCG-02/SDG&E-02, Chapter 1 (Diana Day) for more details regarding the utilities' RAMP Report.

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- ii. Similar to the description in part t of this response, the values shown in the "Forecast CPUC Cost Estimates" section of those pages are transcribed from the previously-submitted RAMP Report and consist of ranges of cost estimates to mitigate that particular risk at that time. These RAMP pages (identified by the header 'RAMP Item #x' near the top of the page) are provided as a cross reference to the original RAMP Report. These are superseded by the more precise cost estimates developed for the GRC application.
- u. The historical cost is zero, please refer to Exhibit SCG-26-CWP at page 633.
- v. Similar to the description in part t, the term "Historical Embedded Cost Estimates" appears on a suffix workpaper page that may appear on one or more workpaper sets for a given capital budget, which links that budget to its Risk Assessment Mitigation Phase (RAMP)<sup>2</sup> counterpart risk; those pages show any RAMP-related attributes relevant to the workpaper group in which it is contained. These RAMP pages (identified by the header 'RAMP Item #x' near the top of the page) are provided as a cross reference to the original RAMP Report. There is at least one page for each RAMP item attributed to the workpaper group. The term "Historical Embedded Cost Estimates" refers to that fraction of estimated risk-mitigation costs that are embedded in SoCalGas' 2016 historical costs and is already being performed. For example, if a risk mitigation activity is estimated to have a 2017 total value of \$10, and its 'historical embedded cost estimate' is \$8, then the remaining \$2 would be considered an incremental cost forecast. If the forecast that includes this risk mitigation activity was derived using the 2016 historical value such as an average, a trend, or using 2016 as a starting point (the 'base-year' method), then that \$8 'historical embedded cost estimate' is already included in that underlying forecast and only the \$2 is an estimated incremental new cost. Also, as in the response to part t, the values shown in the "Historical Embedded Cost Estimates" section of those pages are transcribed from the previously-submitted RAMP Report and consist of cost estimates developed at that time. These were superseded by the more precise cost estimates developed for the GRC application.
- w. Please refer to the testimony of Jamie York, Exhibit SCG-02-R/SDG&E-02-R Chapter 3: RAMP to GRC integration beginning at page JKY-5 Section D: Incorporation of the RAMP Request into Overall GRC Request. Specifically, line 17 on JKY-6 through line 2 on JKY-7 discusses the quantification of BY 2016 expenditures historically devoted to the identified RAMP mitigation activities.
- x. The Historical Embedded Cost Estimates were prepared for the TY 2019 GRC (see the testimony of Jamie York referenced in response to partw above). The Rate Case Plan does not include a provision for the Commission to approve historical embedded RAMP estimates. In D.16-06-054, the Commission adopted a test year 2016 revenue requirement for SoCalGas. The expenditures that form the basis for the embedded cost estimates are a portion of SoCalGas' 2016 expenditures within the authorized revenue requirement.

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<sup>2</sup> *Id.*

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**SoCalGas Response 4-7 Continued:**

- y. Similar to the description in part t, the term "Funding Source" appears on a suffix workpaper page that may appear on one or more workpaper sets for a given capital budget, which links that budget to its Risk Assessment Mitigation Phase (RAMP)<sup>3</sup> counterpart risk; those pages show any RAMP-related attributes relevant to the workpaper group in which it is contained. These RAMP pages (identified by the header 'RAMP Item #x' near the top of the page) are provided as a cross reference to the original RAMP Report. There is at least one page for each RAMP item attributed to the workpaper group. The term "Funding Source" refers to regulatory jurisdiction that authorizes the revenue requirement for that activity. For example, the 'Funding Source' of 'CPUC-GRC' indicates that funding for this activity is authorized through the CPUC General Rate Case proceeding and hence is included in these workpapers.
- z. SoCalGas and SDG&E object to this request as out of scope and vague and ambiguous. Subject to and without waiving the foregoing objection, SoCalGas and SDG&E responds as follows: As described in the RAMP Report, SoCalGas' risk assessment methodology was used to score the overall risks that SoCalGas is managing, not the specific projects that are proposed in the GRC. Furthermore, SoCalGas demonstrated an early attempt at assessing risk mitigations in the RAMP Report. That methodology did not score individual projects, but rather the scoring of the bundle of mitigants facilitated an estimation of how a group of programs/projects may reduce a given risk.

As such, the urgency and timing of projects is not based on a particular risk assessment or score. However, SoCalGas' annual risk assessment process serves as one of many inputs in considering how investments align with risk priorities by providing an overarching methodology for identifying, evaluating and prioritizing SoCalGas' risks with safety as a top priority. Please see the Revised Direct Testimony of Diana Day (Exhibit SCG-02-R/SDG&E-02-R, Chapter 1) and the Revised 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.

In addition to considering the risk priorities identified in the annual risk assessment process, factors such as regulatory mandates and execution feasibility may drive the urgency and timing for projects.

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<sup>3</sup> *Id.*



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4-8. Please refer to the capital workpaper of SCG witness Elizabeth Musich, Exhibit No. SCG-07-CWP, at pages 167 and 168 of 176 for the RAMP related project, Incremental Blanket Projects.

- a. Please provide a detailed explanation of the project, identify the safety culture and/or risk metrics that support the Company's decision to include the project in the 2019 GRC, explain the risks that are associated with the project, explain how this project mitigates those risks, and identify the alternatives considered that also meet the safety and risk objectives, and explain why the proposed project is the most reasonable alternative option.
- b. 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.
- c. Please provide a detailed breakdown of the cost estimates presented for the capital expenditures shown for 2017, 2018, and 2019.
  - i. Please identify the labor and non-labor expense associated with Hardware, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.
  - ii. Please identify the labor and non-labor expense associated with Software, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.
  - iii. Please identify the labor and non-labor expense associated with Material, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.

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- iv. Please identify the labor and non-labor expense associated with Construction, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.
- v. Please identify the labor and non-labor expense associated with Environmental Survey/Permitting/Mitigation, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.
- vi. Please identify the labor and non-labor expense associated with Land & Right-of-Way Acquisition, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.
- vii. Please identify the labor and non-labor expense associated with Company Labor, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.
- viii. Please identify the labor and non-labor expense associated with Other (including, but not limited to, Project Management, Engineering, Survey & Design), explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.

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- ix. Please identify the labor and non-labor expense associated with Contractors, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.
- x. Please identify the labor and non-labor expense associated with any additional cost component not included in parts i. through ix. above, explicitly detailing the number of units or hours required, as well as cost per unit or cost per hour of each item that is required to arrive at the total labor and non-labor costs associated with this cost estimate component. Further, please provide a detailed explanation of the activity associated with each cost and why it is required to be included in this cost estimate.
- d. Please provide the cost model utilized to determine the cost estimates provided for the forecast capital spend in 2017, 2018, and 2019. If available in Excel spreadsheet format, provide with all formulas and links intact.
- e. 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.
- f. Please explain if there are any overhead adders included in these cost estimates. If so, please explain what overhead is included, what cost components these contingencies are applied to, and why it is required to inflate the cost estimates with overhead adders.
- g. Please explain if there are any additional indirect costs included in these cost estimates not discussed previously.
- h. Please explain if the forecast expenditures for 2017 and 2018 represent projects that have already begun.
- i. Please provide the actual expenditures for 2017.

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- j. Please explain if this project represents an on-going cost that will be continued in the future to maintain a safe and reliable system, or if it is a one-time project that is needed to make a specific system component safer.
- k. Please provide a cost estimate forecast of this project for 2020, 2021, and 2022.
- l. Please explain how this project impacts the post-test year capital expenditures.
- m. Please provide all workpapers from the 2016 RAMP Report associated with this project.
- n. Please identify the exact locations in the 2016 RAMP report that discusses this project.
- o. Please explain why this project must be completed in the proposed time frame i.e., during the 2019 GRC cycle, rather than spread over a greater number of years, i.e. during a future GRC cycle.
- p. Is this project mandated by any approved Federal regulations? If so, please identify the regulations and explain how this project makes SoCalGas compliant with these regulations.
- q. Is this project mandated by any approved California regulations? If so, please identify the regulations and explain how this project makes SoCalGas compliant with these regulations.
- r. Is this project mandated by any proposed State or Federal regulations? If so, please identify these proposed regulations and explain how this project makes SoCalGas compliant with these regulations.

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- s. 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. Additionally, explain how the scores in these metrics led SoCalGas to the decision that the 2019 GRC was the appropriate time to propose this project.
- t. Please explain what is represented by the “Forecast CPUC Cost Estimates.”
  - i. Please provide all workpapers and cost models associated with developing these cost estimates.
  - ii. Please explain how these cost estimates differ from the capital expenditures being requested in the rate case associated with the same project.
- u. Please explain how the Historical Embedded Cost Estimates were determined.
- v. Please explain how the Historical Embedded Cost Estimates impact the proposed capital expenditures in the rate case.
- w. Please explain why the Historical Embedded Cost Estimates are estimates and not actual expenditures.
- x. Please explain if the Historical Embedded Cost Estimates were approved by the CPUC.
- y. Please explain the Funding Source identified for this project.
- z. Please explain how this project was scored for safety and risk based on SoCalGas’s safety culture and risk assessment. Additionally, please explain how the safety and risk assessments or scores are used to determine the urgency and timing of the projects.

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**SoCalGas Response to 4-8:**

SoCalGas objects to the definitions and instructions submitted by Indicated Shippers on the grounds that they are overbroad and unfairly burdensome. Special interrogatory instructions of this nature are expressly prohibited by California Code of Civil Procedure Section 2030.060(d).

a. An explanation of RAMP-related projects, the risk(s) associated with the project, how the project mitigates those risk(s), RAMP-related cost breakdowns, and safety culture are provided in Section II of the Direct Testimony of Beth Musich and Mike Bermel and the associated workpapers. Additional information with respect to the RAMP risks, such as detailed descriptions about the risk, risk classification, potential drivers, and potential consequences, is included in the risk chapters in the RAMP Report, see <https://www.sdge.com/regulatory-filing/20016/risk-assessment-and-mitigation-phase-report-sdge-socalgas>. The requirement to include alternative mitigation plans is specific to the RAMP showing (see D.16-08-018 at p. 151 and D.14-12-025 at p. 32). Nonetheless, to the extent alternatives were considered when preparing the Test Year 2019 GRC, SoCalGas included such information in Section II of Beth Musich and Mike Bermel’s testimony.

b. As described on the RAMP Report, Chapter SCG-6, the proposed infrastructure enhancements projects and programs will promote safety and reliability of services to our customers.

c. i through x: SoCalGas does not forecast its labor and nonlabor expenses in this manner or at the level of detail requested for this testimony.

d. SoCalGas' cost modeling in preparation of its forecast capital spending for 2017, 2018, and 2019 consists of several processes and components and is not a single spreadsheet; components of that modeling require network database applications that themselves require enterprise-level software including Microsoft SQL Server, Microsoft Visual Studio and Crystal Report Writer. An active Excel spreadsheet for this entire process does not exist.

e. SoCalGas objects to the portion of the question that asks, “why it is required to inflate the cost estimates with contingency adders,” because 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:

There are no contingency adders included in our cost estimates.

f. 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

g. There are no additional indirect costs included in these cost estimates.

h. Yes, the forecast expenditures include projects that have already begun.

i. Please see the table below.

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<u>Exhibit Number</u>	<u>Witness Name</u>	<u>Workpaper</u>	<u>Workpaper Title</u>	Labor	NLbr	NSE	Total
Exh No:SCG-07-CWP	Elizabeth A. Musich	003090.000	GT - Aux Equipment	751	4,993	-	5,744

j. SoCalGas objects to this request pursuant to Rule 10.1 of the Commission’s Rules of Practice and Procedure to the extent it seeks information for a timeframe that is neither relevant to the subject matter involved in this proceeding nor is reasonably calculated to lead to the discovery of admissible evidence. SoCalGas further objects to this request on the grounds that “in the future” is vague and ambiguous, overbroad, and unfairly burdensome. SoCalGas interprets the phrase “in the future” to refer to the GRC cycle at issue in this proceeding. Subject to and without waiving these objections, SoCalGas responds as follows:

As stated in footnote 8 of the Direct Testimony of RAMP to GRC Integration witness Jamie York (Exhibit SCG-02R/SDG&E-02), "Generally, for capital projects, the RAMP categorization was given either the "Base" or "Incremental" designation. As such, if a capital project is shown as "RAMP Incremental," the amount represents the entire forecasted project costs and may not be limited to the estimated incremental amount of that project." The projects referred to in this question are an expansion of already existing efforts and are therefore ongoing.

k. The Test Year 2019 General Rate Case as presented in A.17-10-007/008, projects for a revenue requirement to be established on January 1, 2019. 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. As such, no 2020, 2021, or 2022 projections are provided for this project. Please see the Direct testimony of Jawaad Malik (Exhibit SCG-44) for Post-Test Year Ratemaking.

l. Details around the Post-Test Year Mechanism and the calculations for Capital and O&M can be found in the Direct Testimony of Jawaad Malik (Exhibit SCG-44).

m. 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-socialgas>.
- 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.”

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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.)

n. As mentioned in the RAMP Report Chapter A at p. SDGE/SCG A-2, “The purpose of RAMP is not to request funding. Any finding 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 m above.

o. The forecasts provided during the 2019 GRC cycle are anticipated capital investments that align with guidelines set forth by the Transportation Security Administration (TSA) for physical security of critical infrastructure sites and is part of SoCalGas’ plan for operational resiliency.

p. SoCalGas objects to part p of this question 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. Part p of this question seeks legal conclusions, rather than the production of evidence of a factual matter. SoCalGas further objects to part p of this question to the extent it requires SoCalGas to search its files for matters of public record, including in state and federal codes and proceedings (regulations, decisions, orders, etc.). This information is available equally to Indicated Shippers. Subject to and without waiving the foregoing objections, SoCalGas responds as follows:

Other than the obligation to provide safe and reliable service, SoCalGas is unaware of any approved Federal regulation mandating the project. The mitigation is, however, a response to the PHMSA Advisory Bulletin after the 9/11 attacks from which SoCalGas began to implement TSA Pipeline Security Guidelines.

q. SoCalGas objects to part q of this question 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. Part q of this question seeks legal conclusions, rather than the production of evidence of a factual matter. SoCalGas further objects to part q of this question to the extent it requires SoCalGas to search its files for matters of public record, including in state and federal codes and proceedings (regulations, decisions, orders, etc.). This information is available equally to Indicated Shippers. Subject to and without waiving the foregoing objections, SoCalGas responds as follows:



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Other than the obligation to provide safe and reliable service, SoCalGas is unaware of any approved California regulation mandating the project.

r. SoCalGas objects to part r of this question 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. Part r of this question seeks legal conclusions, rather than the production of evidence of a factual matter. SoCalGas further objects to part r of this question to the extent it requires SoCalGas to search its files for matters of public record, including in state and federal codes and proceedings (regulations, decisions, orders, etc.). This information is available equally to Indicated Shippers. Subject to and without waiving the foregoing objections, SoCalGas responds as follows:

SoCalGas is unaware of any proposed additional state or federal regulations applicable to this project.

s. SoCalGas and SDG&E object to this request as out of scope. 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.

t. The term "Forecast CPUC Cost Estimates" appears on a suffix workpaper page that may appear on one or more workpaper sets for a given capital budget, which links that budget to its Risk Assessment Mitigation Phase (RAMP)<sup>1</sup> counterpart risk; those pages show any RAMP-related attributes relevant to the workpaper group in which it is contained. These RAMP pages (identified by the header 'RAMP Item #x' near the top of the page) are provided as a cross reference to the original RAMP Report. There is at least one page for each RAMP item attributed to the workpaper group. The term "Forecast CPUC Cost Estimates" refers to those costs that are recoverable through CPUC-authorized revenue requirements. There are costs that are excluded from the General Rate Case application because they

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<sup>1</sup> I.16-10-015/I.16-10-016 Risk Assessment and Mitigation Phase Report of San Diego Gas & Electric Company and Southern California Gas Company, November 30, 2016. Please also refer to Exhibit SCG-02/SDG&E-02, Chapter 1 (Diana Day) for more details regarding the utilities’ RAMP Report.

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are funded through other mechanisms, typically another ratemaking proceeding or through another regulatory jurisdiction such as the Federal Energy Regulatory Commission (FERC). The values shown in the "Forecast CPUC Cost Estimates" section of those pages are transcribed from the previously-submitted RAMP Report and consist of ranges of cost estimates to mitigate that particular risk at that time. These were superseded by the updated cost estimates developed for the GRC application.

- i. As described in part d of this response, SoCalGas' cost modeling in preparation of its forecast spending for 2017, 2018, and 2019 consists of several processes and components and is not a single spreadsheet; components of that modeling require network database applications that themselves require enterprise-level software including Microsoft SQL Server, Microsoft Visual Studio and Crystal Report Writer. An active Excel spreadsheet for this entire process does not exist. Workpapers can be found in the volumes served with the original testimony, they are identified as follows:
  - The testimony exhibit is SCG-7
  - The corresponding O&M expense workpaper volume is SCG-06-WP
  - The corresponding capital expense workpaper volume is SCG-07-CWP

Most workpaper exhibits do not exist as Excel documents with working formulae. Workpapers and tables that appear in testimony are not created from, nor do they originate as Excel spreadsheets, these are produced from a database system which consists of many data tables that are dynamically linked to permit grouping of cost centers and budgets, editing of historical values, selection of a forecast methodology, adjustments to forecasts and the production of workpapers. The use of a database for this purpose does not involve spreadsheets, the workpapers are formatted 'reports' from that collection of tables and linking relationships that form the database. Data extracts of this type contain only data values, the extract is not capable of producing 'working formulas.'

- ii. Similar to the description in part t, the values shown in the "Forecast CPUC Cost Estimates" section of those pages are transcribed from the previously-submitted RAMP Report and consist of ranges of cost estimates to mitigate that particular risk at that time. These RAMP pages (identified by the header 'RAMP Item #x' near the top of the page) are provided as a cross reference to the original RAMP Report. These are superseded by the more precise cost estimates developed for the GRC application.
- u. The Historical Embedded Cost Estimates are 2016 actuals. Please see page 168 of 176 in SCG-07-CWP.

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v. Similar to the description in part t of this response, the term "Historical Embedded Cost Estimates" appears on a suffix workpaper page that may appear on one or more workpaper sets for a given capital budget, which links that budget to its Risk Assessment Mitigation Phase (RAMP)<sup>2</sup> counterpart risk; those pages show any RAMP-related attributes relevant to the workpaper group in which it is contained. These RAMP pages (identified by the header 'RAMP Item #x' near the top of the page) are provided as a cross reference to the original RAMP Report. There is at least one page for each RAMP item attributed to the workpaper group. The term "Historical Embedded Cost Estimates" refers to that fraction of estimated risk-mitigation costs that are embedded in SoCalGas' 2016 historical costs and is already being performed. For example, if a risk mitigation activity is estimated to have a 2017 total value of \$10, and its 'historical embedded cost estimate' is \$8, then the remaining \$2 would be considered an incremental cost forecast. If the forecast that includes this risk mitigation activity was derived using the 2016 historical value such as an average, a trend, or using 2016 as a starting point (the 'base-year' method), then that \$8 'historical embedded cost estimate' is already included in that underlying forecast and only the \$2 is an estimated incremental new cost. Also, as in the response to part t, the values shown in the "Historical Embedded Cost Estimates" section of those pages are transcribed from the previously-submitted RAMP Report and consist of cost estimates developed at that time. These were superseded by the more precise cost estimates developed for the GRC application.

w. Please refer to the testimony of Jamie York, Exhibit SCG-02-R/SDG&E-02-R Chapter 3: RAMP to GRC integration beginning at page JKY-5 Section D: Incorporation of the RAMP Request into Overall GRC Request. Specifically, line 17 on JKY-6 through line 2 on JKY-7 discusses the quantification of BY 2016 expenditures historically devoted to the identified RAMP mitigation activities.

x. The Historical Embedded Cost Estimates were prepared for the TY 2019 GRC (see the testimony of Jamie York referenced in response to part w above). The Rate Case Plan does not include a provision for the Commission to approve historical embedded RAMP estimates. In D.16-06-054, the Commission adopted a test year 2016 revenue requirement for SoCalGas. The expenditures that form the basis for the embedded cost estimates are a portion of SoCalGas' 2016 expenditures within the authorized revenue requirement.

y. Similar to the description in part t, the term "Funding Source" appears on a suffix workpaper page that may appear on one or more workpaper sets for a given capital budget, which links that budget to its Risk Assessment Mitigation Phase (RAMP)<sup>3</sup> counterpart risk; those pages show any RAMP-related attributes relevant to the workpaper group in which it is contained. These RAMP pages (identified by the header 'RAMP Item #x' near the top of the page) are provided as a cross reference to the original RAMP Report. There is at least one page for each RAMP item attributed to the workpaper group. The term "Funding Source" refers to regulatory jurisdiction that authorizes the revenue requirement for that activity. For example, the 'Funding Source' of 'CPUC-GRC' indicates that funding for this activity is authorized through the CPUC General Rate Case proceeding and hence is included in these workpapers.

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<sup>2</sup> Id.

<sup>3</sup> Id.

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**SoCalGas Response to 4-8 Continued:**

z. SoCalGas and SDG&E object to this request as out of scope and vague, ambiguous, and unintelligible. Subject to and without waiving the foregoing objection, SoCalGas and SDG&E responds as follows: As described in the RAMP Report, SoCalGas' risk assessment methodology was used to score the overall risks that SoCalGas is managing, not the specific projects that are proposed in the GRC. Furthermore, SoCalGas demonstrated an early attempt at assessing risk mitigations in the RAMP Report. That methodology did not score individual projects, but rather the scoring of the bundle of mitigants facilitated an estimation of how a group of programs/projects may reduce a given risk.

As such, the urgency and timing of projects is not based on a particular risk assessment or score. However, SoCalGas' annual risk assessment process serves as one of many inputs in considering how investments align with risk priorities by providing an overarching methodology for identifying, evaluating and prioritizing SoCalGas' risks with safety as a top priority. 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.

In addition to considering the risk priorities identified in the annual risk assessment process, factors such as regulatory mandates and execution feasibility may drive the urgency and timing for projects.