

**INDICATED SHIPPER DATA REQUEST**  
**IS-SCG-003**  
**SOCALGAS 2019 GRC – A.17-10-008**  
**SOCALGAS RESPONSE**  
**DATE RECEIVED: FEBRUARY 26, 2018**  
**DATE RESPONDED: MARCH 26, 2018**

3.1 Please refer to the capital workpaper of SoCalGas witness Maria Martinez, Exhibit No. SCG-14-CWP, at pages 33 and 34 of 40 for the RAMP related project, Base BC 277 is for DIMP DREAMS and GIPP.

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.

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.

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**Question 3.1 – Continued**

- 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.
- 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.

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- 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 3-1:**

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. 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-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. 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.
- 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.

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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.

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 DIMP 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	002770.000	Distribution Integrity Management	6,982	83,414	-	90,396

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 DIMP 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.

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**SoCalGas Response 3-1 CONTINUED:**

o. See response to Question 3-1.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 DIMP is federally mandated under 49 C.F.R. Section 192, Subpart P. (please see Ex. SCG-14 p. MTM-iii).

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 DIMP 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 DIMP.

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**SoCalGas Response 3-1 CONTINUED:**

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

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.

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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 3-1 CONTINUED:**

- 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.

u. The Historical Embedded Cost Estimates are 2016 actuals as shown in Exhibit No. SCG-14-CWP, at page 34.

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

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

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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.

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

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

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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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3.2 Please refer to the capital workpaper of SoCalGas witness Neil Navin, Exhibit No. SCG-10-CWP-R, at pages 157 and 158 of 184 for the RAMP related project, RSIMP – Inspection/Return to Operation.

**Response:** 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-sdgc-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. 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.

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

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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:** 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 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 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 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 v:** 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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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 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 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 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 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 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 RSIMP – Inspection/Return to Operation; and in the testimony of Neil Navin in the Forecast Methodology section of RSIMP – Inspection/Return to Operation.

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.

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**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 projects 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	004410.000	SIMP Work	892	61,076	-	61,968

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 SIMP cost to maintain safety and address system reliability, consistent with the reinspection interval in the proposed Division of Oil, Gas, and Geothermal Resources (DOGGR) regulations (biannual baseline, with DOGGR approved risk based extended interval).

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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.)

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 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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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:** In addition to the obligation to provide safe and reliable service, per SB887 (Pavley) and the proposed DOGGR Regulations for Underground Gas Storage Projects, an initial inspection is required for all gas storage wells, and subsequent inspections are required at a minimum of every two years.

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 mandated by PHMSA Underground Natural Gas Storage (UGS) regulations 49 CFR §192.12

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 Senate Bill 887 (Pavley), which requires commencement of mechanical integrity testing regime of gas storage wells by January 1, 2018.

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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:

In addition to the obligation to provide safe and reliable service, this project is mandated by proposed State regulation – DOGGR Regulations for Underground Gas Storage Projects. The proposed regulations require a reinspection interval with a biannual baseline, and DOGGR approved risk-based extended interval.

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 Assessment and 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 not involve spreadsheets, the workpapers are formatted ‘reports’ from that

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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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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.

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)<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.

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<sup>2</sup> Id.

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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 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

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<sup>3</sup> Id.

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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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3.3 Please refer to the capital workpaper of SoCalGas witness Maria Martinez, Exhibit No. SCG-14-CWP, at pages 19 and 20 of 40 for the RAMP related project, Base BC 312 is Base TIMP.

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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**Question 3.3 – Continued**

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

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- 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.

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.

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.

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- 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 3-3 Continued:**

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-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. 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.
- 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.

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**SoCalGas Response 3-3 Continued:**

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	P03120.000	GT PL Rpls / Externally Driven	3,769	96,263	-	100,032

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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**SoCalGas Response 3-3 Continued:**

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.

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**SoCalGas Response 3-3 Continued:**

o. See response to Question 3-3.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 O. (please see Ex. SCG-14 p. MTM-iii).

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

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**SoCalGas Response 3-3 Continued:**

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 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.

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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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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.

u. The Historical Embedded Cost Estimates are 2016 actuals for Budget Code 312 as shown in Exhibit No. SCG-14-CWP, at page 20.

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

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

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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.

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.

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

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**SoCalGas Response 3-3 Continued:**

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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3.4 Please refer to the capital workpaper of SoCalGas witness Maria Martinez, Exhibit No. SCG-14-CWP, at pages 37 and 38 of 40 for the RAMP related project, Incremental BC 277 is for DIMP DREAMS and GIPP.

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.

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.

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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.
  
- 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.
  
- 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.

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- 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.
- 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.

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- 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 3-4:**

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-sdgc-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. 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.
- 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.

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**SoCalGas Response 3-4:-Continued**

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 DIMP 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	002770.000	Distribution Integrity Management	6,982	83,414	-	90,396

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 DIMP is federally mandated and will 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.

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o. See response to Question 3-3.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 DIMP is federally mandated under 49 C.F.R. Section 192, Subpart P. (please see Ex. SCG-14 p. MTM-iii).

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 DIMP 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 DIMP.

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.

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**SoCalGas Response 3-4s:-Continued**

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 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.

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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 3-4:-Continued**

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.

u. The Historical Embedded Cost Estimates for Incremental Budget Code 277 under this RAMP workpaper are zero. The 2016 historical costs for BC 277 are included in Ex. SCG-14-CWP p. 34.

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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.

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

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

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**SoCalGas Response 3-4y:-Continued**

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, 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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3.5 Please refer to the capital workpaper of SoCalGas witness Richard Phillips, Exhibit No. SCG-15-CWP, at pages 16 and 17 of 26 for the RAMP related project, Base – PSEP Valve Project Bundle 2019.

- 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.
  
  - 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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- 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.
- 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.

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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.

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.

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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.
- 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.
- 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 3-5:**

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 Rick Phillips and the associated workpapers. PSEP, which includes the PSEP Valve Project Bundle, mitigates a top safety risk, as identified in the RAMP Report. 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-sdgc-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. Phillips' testimony.
- b. One of the primary objectives of PSEP, which includes the Valve Enhancement Plan, is to maximize the cost effectiveness of safety investments for the benefit of customers, as indicated on pages RDP-A-5, RDP-A-15, RDP-A-16, RDP-A-20, RDP-A-21 and RDP-57 of SCG-15. The forecasted costs of the Valve Enhancement Plan are based on SoCalGas' experience in the design, permitting, and construction of previously executed Valve Enhancement Plan projects and incorporate lessons learned since the plan commenced implementation in 2012.
- c. i. – x. Please see SCG-15S, pages WP-IV-A1 through IV-A29 and response to Question 3.d.
- d. Please see Attachment: "IS DR-003 Qd CONFIDENTIAL Valve GRC 2017 Final List w Estimates\_redacted." Note that the cost model includes forecasted costs for 2020 and 2021 as well.
- 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:

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Yes, there are contingency adders included in the PSEP Valve Project Bundle 2019. The contingency categories are productivity, scope, pricing and duration. The following are the cost components within which contingencies are applied:

- Materials - Mechanical
- Materials - Electrical
- Materials - Civil
- Mechanical Contractor
- Electrical Contractor
- Valve Contractor
- Company Labor
- Engineering
- Environmental
- Project Management
- Survey
- Construction Management
- Land

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

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

- 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

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

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(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. These costs are associated with the planning and engineering design work for valve enhancement projects anticipated to begin construction in 2019.
- i. Please see the table below:

<u>Workpaper</u>	<u>Workpaper Title</u>	In Thousands and 2016\$			
		Labor	NLbr	NSE	Total
005690.000	PSEP AUX EQUIP & INFRASTR - NON PHASE	315	2122	0	2,437

- 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:

Execution of the PSEP Valve Enhancement Plan began in 2012 and is anticipated to be complete in 2021, concurrent with the 2019 GRC cycle.

- k. See response to Questions 3.c. and 3.d. Note, as indicated in the response to Question 3.j., that the Valve Enhancement Plan is anticipated to be complete in 2021, therefore there is no cost estimate forecast for 2022.
- l. Details around the Post-Test Year Mechanism as it relates to PSEP and the corresponding Capital calculations 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:

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- 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. Execution of the PSEP Valve Enhancement Plan began in 2012 and is scheduled to be completed during the 2019 GRC cycle to meet the Commission requirement set forth in D.11-06-017 on page 19 that PSEP be completed "as soon as practicable" and the directives in the Natural Gas Pipeline Safety Act of 2011 that the plan "shall include a timeline for completion that is as soon as practicable" (Pub. Util. Code § 958 and "The commission shall additionally establish action timelines, adopt standards for how to prioritize installation of automatic shutoff or remote controlled sectionalized block valves pursuant to paragraph (1), ensure that remote and automatic shutoff valves are installed as quickly as is reasonably possible, and establish ongoing procedures for monitoring progress in achieving the requirements of this section." (Pub. Util. Code § 957).
- 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

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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, 49 CFR, Section 192.935 refers to automatic shut-off or remote-control valves as a potential additional preventative and mitigative measure in the event of a pipeline failure in high consequence areas.

- 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, see the Natural Gas Pipeline Safety Act of 2011 and California Public Utilities Commission decisions in R.11-02-019 and A.11-11.002.

- 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 state or federal regulations applicable to the Valve Enhancement Plan.

- 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:

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

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. 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.

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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, and are identified as follows:

- The testimony exhibit is SCG-15
- The corresponding O&M expense workpaper volume is SCG-15
- The corresponding capital expense workpaper volume is SCG-15-CWP
- Additional supporting information is contained in SCG-15S, pages WP-IV-A1 through IV-A29 (Supplemental Workpapers of Rick Phillips) and response to Question 3.d. for 2019.

Please note that costs associated with completed 2017 and 2018 Valve Enhancement Plan projects are recovered through standalone Reasonableness Reviews per D.16-08-003.

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 the identified risk at the identified 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 updated cost estimates developed for the GRC application.

- u. As stated in SCG-15 CWP at page 17, the Historical Embedded Cost Estimates represent actual costs incurred in 2016 for Valve Enhancement Plan Projects.
- v. As stated in response to Question 3.u., the Historical Embedded Cost Estimates represent actual costs incurred in 2016 for Valve Enhancement Plan Projects. Further, as indicated on Page RDP-A-48 of SCG-15, the proposed capital expenditures in the rate case are based on SoCalGas' experience in the design, permitting, and construction of previously-executed Valve Enhancement Plan projects.

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- w. Please see response to Question 3.u.
- x. As stated in response to Question 3.u., the Historical Embedded Cost Estimates represent actual costs incurred in 2016 for Valve Enhancement Plan Projects. These costs will be submitted for review by the Commission in a future Reasonableness Review application.
- y. As indicated in SCG-15-CWP (page 17 of 26), the Funding Source is identified as “Other.” This refers to the fact that costs associated with Valve Enhancement Plan projects completed in 2017 and 2018 are reviewed by the Commission through standalone Reasonableness Review applications per D.16-08-003, and projects forecasted to be completed in 2019 are included in this rate case.

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.

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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3.6 Please refer to the capital workpaper of SoCalGas witness Neil Navin, Exhibit No. SCG-10-CWP-R, at pages 29 and 30 of 184 for the RAMP related project, Base C1 Well Replacements.

**Response 3.6:** 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. 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 Forecast Methodology in capital workpaper 00412A – RAMP – C1 – WELL REPLACEMENTS, 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:** 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 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 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.

**Responseiv:** 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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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 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 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 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 viii:** 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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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 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 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 C1 – Well Replacements; and in the testimony of Neil Navin in the Forecast Methodology section of Base C1 – Well Replacements.

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.

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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:** In 2017, SoCalGas needed to focus on meeting SB 887 requirements and this delayed any 2017 well replacement work. Given the SB 887 priorities, the resulting delays, and our continuing technical evaluation, the well replacements planned for 2017 were reassessed and determined not to be feasible at this time. The wells forecasted for 2018 are currently being planned.

i. Please provide the actual expenditures for 2017.

**Response i:** Please see the table below and the response to 3-6(h).

<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”

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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 ongoing cost that will be continued through the Test Year and attrition years.

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 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. 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:** New well drills are forecasted to occur in this GRC cycle to address deliverability from the storage fields. SIMP inspections have resulted in the abandonment and forecasted abandonment of some SoCalGas gas storage wells, requiring replacement well drilling for the next several years.

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:

Although this work is not specifically mandated by currently approved Federal regulations, it is consistent with the 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,

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decisions, orders, etc.). This information is available equally to Indicated Shippers. Subject to and without waiving the foregoing objections, SoCalGas responds as follows:

Although this work is not specifically mandated by currently approved California regulations, it is consistent with the obligation to provide safe and reliable service.

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:

Although SoCalGas is unaware of any proposed state or federal regulations mandating well replacements, the work is consistent with the obligation to provide safe and reliable service.

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

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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)<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 not involve spreadsheets, the workpapers are formatted ‘reports’ from that collection of tables and

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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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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.

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

**Response u:** Historical Embedded Costs Estimates were determined from historic work performed.

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)<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.

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<sup>2</sup> Id.

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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 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.

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<sup>3</sup> Id.

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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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3.7 Please refer to the capital workpaper of SoCalGas witness Neil Navin, Exhibit No. SCG-10-CWP-R, at pages 35 and 36 of 184 for the RAMP related project, Base C2 Well Plug & Abandon.

**Response 3.7:** 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 Base C2 Well Plug & Abandon, for additional detail. In addition, Underground Storage 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:** 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 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 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 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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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 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 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 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 viii:** 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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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 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 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 C2 Well Plug & Abandon; and in the testimony of Neil Navin in the Forecast Methodology section of Base C2 Well Plug & Abandon.

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:

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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.

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

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 2018

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GRC, this project represents an on-going cost that will continue through the Test Year and attrition years.

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.)

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 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

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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 plug and abandonments are driven by Division of Oil, Gas, and Geothermal Resources (DOGGR) required well inspection and testing, and related assessments of costs and benefits of plugging and abandoning or bringing the well back into service.

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 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 our obligation to provide safe and reliable service, this work is consistent with the practices mandated by PHMSA Underground Natural Gas Storage (UGS) regulations 49 CFR §192.12

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:

California regulations are drivers for C2 Well Plug & Abandon activities. Further, in addition to our obligation to provide safe and reliable service, certain C2 Well Plug & Abandon activities are mandated by California DOGGR Order 1109 Action (3) “Properly plug and abandon in

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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 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:

Proposed DOGGR regulations are drivers for C2 Well Plug & Abandon activities.

DOGGR proposed Requirements for California Underground Gas Storage Projects 1726.3(d)(1) would require a work plan and schedule for either bringing nonconforming wells into compliance with regulations or plugging and abandoning the wells in accordance with Public Resources Code section 3208.

DOGGR proposed Requirements for Idle Well Testing And Management 1772.2 (b)(3) would require the operator to plug and abandon certain wells “in accordance with Section 3208.”

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

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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)<sup>1</sup>n 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

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

**Response u:** Historical Embedded Costs Estimates were determined from historic work performed.

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)<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

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<sup>2</sup> Id.

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“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 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

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<sup>3</sup> Id.

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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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3.8 Please refer to the capital workpaper of SoCalGas witness Michael Bermel, Exhibit No. SCG-08-CWP, at pages 11 and 12 of 56 for the RAMP related project, Incremental Post Filing Distribution Operations Control Center.

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.

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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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.

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.

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- 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.
- 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.

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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.
- 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.
- 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 3-8:**

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).

**3.8a.** 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 Michael 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-sdgc-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 testimony.

**3.8b.** A Distribution Operations and Control Center (DOCC) supporting advanced monitoring and control of select distribution pipelines will add significant value to our operational efficiency, swiftness of response, and ability to manage unplanned pipeline incidents and associated emergencies on our distribution system. The proposed DOCC will enhance SoCalGas’ ability to prevent and acknowledge events, support emergency response, provide reliable service to customers, and improve distribution system knowledge, integrity, and planning, as described in SCG-13, pages DKZ-27 through DKZ-30.

**3.8c 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.

**3.8d** 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. However, for the DOCC, SoCalGas developed a specific cost model, please see the attached “DOCC Project Cost Matrix\_TURN DR 018 Q.2a.xlsx.”

**3.8 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:

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**SoCalGas Response 3-8 Continued:**

The estimated capital projects costs for the DOCC include a contingency of 20%. The contingency was applied to the overall cost of the project to cover residual risks associated with project complexity and site variability. The 20% contingency is consistent with an AACE defined Class 4 estimate<sup>1</sup> and the DOCC’s current level of project definition.

**3.8f** 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.

**3.8g** There are no additional indirect costs included in these cost estimates.

**3.8h** Yes, please refer to SCG-08-R, page MAB-21.

**3.8i** Please see the table below.

<u>Exhibit Number</u>	<u>Witness Name</u>	<u>Workpa per</u>	<u>Workpaper Title</u>	<u>Labo r</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>
Exh No:SCG-08-CWP	Michael A. Bermel	003430.000	Distribution Operations Control Center and Technology Management	54	89	-	143

**3.8j** 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:

Please refer to Exhibit SCG-08-CWP, page 30 of 56, Table 10, for expected O&M cost post project completion, and Exhibit SCG-08-CWP, page 19 of 56, Table 5, for total Capital cost for the implementation of DOCC.

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<sup>1</sup> *AACE International Recommended Practice, No 56-R-08, Cost Estimate Classification System – Applied for the Building and General Construction Industries, TCM Framework: 7.3 – Cost Estimating and Budgeting.*

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**3.8k** Please refer to Exhibit SCG-08-CWP, page 19 of 56, Table 5, for estimated Capital costs for 2020 through 2022 and Exhibit SCG-08-CWP, page 30 of 56, Table 10, for estimated O&M cost costs for 2020 through 2022. Please note: 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, please see the Direct Testimony of Jawaad Malik (Exhibit SCG-44) for Post-Test Year Ratemaking.

**3.8l** 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).

**3.8m** 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.)

**3.8n** 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.

**3.8o** This project is scheduled to be fully operational in 2022, with multiple sub-elements scheduled to be placed in service between 2019 and 2022. Please refer to Exhibit SCG-08-CWP, pages 17, Table 1: Unit Installation Breakdown.

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**3.8p** 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:

SoCalGas is unaware of any such Federal regulation.

**3.8q** 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 unaware of any such California regulation.

**3.8r** 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.

**3.8s** 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

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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.

**3.8t** 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>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 "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-08
  - The corresponding O&M expense workpaper volume is SCG-08-WP
  - The corresponding capital expense workpaper volume is SCG-08-CWP

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<sup>2</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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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.

**3.8u** This is a new project and the historical embedded cost estimate is zero. Please refer to SCG-08-CWP, page 12 of 56.

**3.8v.** 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>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 "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.

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

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**3.8w.** 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.

**3.8x.** 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.

**3.8y.** 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>4</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.

**3.8z.** 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

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<sup>4</sup> *Id.*

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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.

The costs identified in Exhibit SCG-08-R, page MAB-2, for DOCC are driven by activities described in SoCalGas and SDG&E’s November 30, 2016 Risk Assessment Mitigation Phase (RAMP) Report (Chapter SCG-10). However, costs specific to DOCC were not included in the November 2016 RAMP filing because the project was still in its early stages of development and cost estimation when RAMP was filed. Rather, these costs are presented in this GRC as a “RAMP post-filing incremental project” as described in Exhibits SCG-08-R, Tables MAB-3 and MAB-4 and SCG-08-CWP, page 12.