Company: Southern California Gas Company (U904G)
Proceeding: 2019 General Rate Case
Application: A.17-10-007/-008 (cons.)
Exhibit: SCG-214

SOCALGAS

REBUTTAL TESTIMONY OF MARIA MARTINEZ

(PIPELINE INTEGRITY FOR TRANSMISSION AND DISTRIBUTION)

JUNE 18, 2018

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

SoCalGas
A Sempra Energy utility®

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SOCALGAS REBUTTAL TESTIMONY OF MARIA MARTINEZ (PIPELINE INTEGRITY)

I. SUMMARY OF DIFFERENCES

TOTAL O&M (Non-Shared + Shared Services) - Constant 2016 ($000)			
	Base Year 2016	**Test Year 2019**	**Change**
SOCALGAS	**$75,658**	**$86,000**	**$10,342**
ORA	**$75,658**	**$86,000**	**$10,342**
TURN	**$75,658**	**$85,996**	**$10,338**
CUE	**$75,658**	**$89,743**	**$14,058**
CFC	**$75,658**	**$86,000**	**$10,342**

TOTAL CAPITAL (TIMP and DIMP) - Constant 2016 ($000)					
	2017	**2018**	**2019**	**Total**	**Variance**
SOCALGAS	**$125,184**	**$125,184**	**$215,000**	**$465,368**	
ORA	**$193,425**	**$125,184**	**$215,000**	**$533,609**	**$(68,241)**
TURN	**$193,425**	**$125,184**	**$215,000**	**$533,609**	**$(68,241)**
CUE	**$193,425**	**$125,184**	**$532,72**	**$851,333**	**($385,965)**
CFC	**$193,425**	**$125,184**	**$145,000**	**$463,609**	**$1,759**

II. INTRODUCTION

This rebuttal testimony regarding SoCalGas' request for Pipeline Integrity address the following testimony from other parties:

- The Office of Ratepayer Advocates (ORA) as submitted by Mr. Nils Stannik (Exhibit ORA-03), dated April 13, 2018.
- The Utility Reform Network (TURN), as submitted by Mr. William Perea Marcus (Exhibit TURN-03), dated May 14, 2018.
- The Coalition of California Utility Employees (CUE), as submitted by Mr. David Marcus and Mr. Don Kick, dated May 14, 2018.
- The Consumer Federation of California Foundation (CFC), as submitted by Mr. Tony Roberts (Exhibit CFC-03-R), dated June 4, 2018.
- The Office Safety Advocates (OSA) as submitted by Ms. Carolina Contreras and Ms. Jenny Au (Exhibit OSA-1), dated May 14, 2018.

As a preliminary matter, the absence of a response to any particular issue in this rebuttal testimony does not imply or constitute agreement by SoCalGas with the proposal or contention

made by these or other parties. The forecasts contained in SoCalGas's direct testimony, performed at the project level, are based on sound estimates of its revenue requirements at the time of testimony preparation.

My Pipeline Integrity testimony consists of the O&M and capital expenses to manage two major, federally mandated pipeline programs to reduce the risk of pipeline failure, the Transmission Integrity Management Program (TIMP) and the Distribution Integrity Management Program (DIMP), as further described in my testimony discussing Pipeline Integrity for Transmission and Distribution (Exhibit SCG-14).[1]

With regard to operations and maintenance (O&M) expenses, no party recommended reductions to SoCalGas' funding level request (TURN almost exactly matches SoCalGas' forecast). CUE recommends a significantly higher level based on its recommendations to accelerate certain programs.

All of the parties recommend adopting SoCalGas' actual 2017 recorded capital expenses, which were higher than forecasted. All of the parties also recommended adopting SoCalGas' forecasted 2018 capital expense. Both ORA and TURN recommend adopting SoCalGas' forecasted 2019 capital expense, while CFC recommends a lower value. CUE again forecasts a higher value based on its recommendation to accelerate certain capital program expenses.

SoCalGas recommends that the Commission should adopt SoCalGas' actual O&M and capital expenses for 2017 and forecasted O&M and capital expenses for 2018 and 2019 as reasonable.

A. ORA

ORA issued its report on April 13, 2018.[2] The following is a summary of ORA's positions:

[1] October 6, 2017, Prepared Direct Testimony of Maria T. Martinez Addressing Pipeline Integrity for Transmission and Distribution on behalf of Southern California Gas Company [SoCalGas], Exhibit SCG-14 (Martinez) at MTM-iii.

[2] April 13, 2018, ORA Report on Risk Management Policy; Enterprise Risk Management Organization; RAMP/GRC Integration; Pipeline Integrity; SoCalGas PSEP, Part 4, Exhibit ORA-03 (Nils Stannik).

- ORA recommends adopting 2017 adjusted-recorded capital expenditures for the TIMP. ORA does not oppose SoCalGas' 2018-2019 proposed TIMP forecasts.
- SoCalGas's TIMP cost are essentially level relative to six years of recorded cost (2012-2017).
- ORA recommends adopting 2017 adjusted-recorded capital expenditures for the DIMP. ORA does not oppose SoCalGas' 2018-2019 proposed DIMP forecasts.
- The unit cost of the various DIMP Programs and Activities Addressing Risk (PAARs) are essentially flat over the examined time period.

B. TURN

TURN submitted testimony on May 14, 2018.[3] The following is a summary of TURN's position:

- TURN recommends a minor O&M adjustment for removal clothing and other gear that is not uniforms for $4,359.06 (in whole 2016 dollars).[4]
- TURN made no other recommendations regarding Pipeline Integrity O&M or capital expense forecasts.

C. CUE

CUE submitted testimony on May 14, 2018.[5] The following is a summary of CUE's positions:

[3] May 14, 2018, TURN Report on Various Results of Operations Issues in Southern California Gas Company's and San Diego Gas and Electric Company's 2016 Test Year General Rate Cases, Public Redacted Version, Exhibit TURN-03 (William Perea Marcus).

[4] *Id.* at 77-78.

[5] May 14, 2018, Opening Testimony of David Marcus, on behalf of the Coalition of California Utility Employees [CUE], Ex. CUE (Marcus); May 14, 2018, Opening Testimony of Don Kick, on behalf of CUE, Ex. CUE (Kick).

- Vintage Integrity Plastic Plan (VIPP): SoCalGas should be required to accelerate its replacement rate for pre-1986 Aldyl-A gas pipe to replace 223 miles per year through 2022, and at a much higher rate thereafter.[6]
- Early vintage steel mains and services: Funding should be increased to achieve ½ of the required steady-state replacement rate for non-bare steel pipe (both mains and services) that is already past its expected life of 68 years, which means an additional 21.2 miles.[7]
- Bare Steel Replacement Plan (BSRP): Commission should require increased bare steel replacement starting in 2019 as bare steel is cathodically unprotected and thus at risk of accelerated corrosion. At SCG's proposed 2019 replacement rates, it would take until 2098 to remove all bare steel. CUE would accept replacing bare steel in this General Rate Case (GRC) cycle at only half of CUE's calculated rate and BSRP program should be increased from 29 to 103.5 miles of mains and service lines in 2019.[8]
- Distribution Riser Inspection Program (DRIP): CUE recommends a 10% increase to the DRIP O&M program. This is to modify process of re-inspecting mitigated risers to ensure process is working.[9]

D. CFC

CFC submitted revised testimony on June 4, 2018.[10] The following is a summary of CFC's positions:

[6] CUE (Marcus) at 9.

[7] *Id.* at 14.

[8] *Id.* at 12.

[9] *Id.* at 36.

[10] June 4, 2018, Prepared Direct Testimony of Tony Roberts Addressing Gas Distribution, on behalf of Consumer Federation of California Foundation [CFC], Exhibit CFC-03-R (Roberts).

- CFC recommends reducing the DIMP capital budget for 2019, with future increases to be determined by the advice of SoCalGas' proposed three project advisors.[11]
- Ultimately, integrity management is about continuing improvement. For that reason, measuring year-to-year trends may be the most practical way to evaluate performance. In SCG's case, the company has demonstrated sustained progress toward reducing its leak rate per system mile – at existing spending level.[12]
- CFC recommends that any significantly increased DIMP capital expenditures should wait until the three advisors assess the rate of closure at current spending levels, and generally produce better performance information on which to determine the optimal pace of asset replacement.[13]

E. OSA

OSA submitted testimony on May 14, 2018.[14] The following is a summary of OSA's positions:

- Demonstrated by the rupture of Line 235-2, it is necessary to go beyond the minimum compliance requirements to achieve safe and effective pipeline operations.[15]

[11] *Id.* at 6-7.

[12] *Id.* at 4.

[13] *Id.* at 6.

[14] May 14, 2018, Prepared Direct Testimony of Carolina Contreras and Jenny Au on San Diego Gas and Electric Company and Southern California Gas Company 2019 General Rate Case, on behalf of the Office of the Safety Advocate [OSA], Public Version, Chapter 4, Exhibit OSA-01 (Au).

[15] *Id.* at 8.

- Based on the lessons learned from the failure of Line 235-2, the expansion of TIMP or the Pipeline Safety Enhancement Plan (PSEP) into less populated areas should be considered. [16]
- SoCalGas needs to correct its "systemic" problem with deficient Cathodic Protection.[17]
- The information gained from this incident is invaluable not just to SoCalGas but also to other gas operators to prevent similar failures in the future. Therefore, OSA recommends that SoCalGas make the root cause analysis (RCA) available to interested parties.[18]

III. REBUTTAL TO PARTIES' O&M PROPOSALS

A. Non-Shared Services O&M

NON-SHARED O&M (TIMP and DIMP) - Constant 2016 ($000)			
	Base Year 2016	**Test Year 2019**	**Change**
SoCalGas	**$74,393**	**$82,710**	**$8,317**
ORA	**$74,393**	**$82,710**	**$8,317**
TURN	**$74,393**	**$82,706**	**$8,313**
CUE	**$74,393**	**$86,453**	**$12,060**
CFC	**$74,393**	**$82,710**	**$8,317**

1. Disputed Cost

a. ORA

ORA did not take issue with SoCalGas' forecast for nonshared O&M expenses. The Commission should adopt SoCalGas' forecast as reasonable.

b. TURN

TURN did not contest SoCalGas' forecast for nonshared O&M expenses. The Commission should adopt SoCalGas' forecast as reasonable.

[16] *Id.* at 6.

[17] *Id.* at 4.

[18] *Id*. at 6.

c. CUE

CUE recommends $3.743 million more than SoCalGas' forecast for nonshared O&M expenses, on the basis of its recommended acceleration of the VIPP, BSRP, and DRIP programs. Because SoCalGas' forecast endeavored to strike an appropriate balance between DIMP's pipeline safety, risk reduction effectiveness, and impact on ratepayer costs, the Commission should adopt SoCalGas' forecast as reasonable.[19]

In regard to the DRIP, CUE raises concerns with contract inspectors' ability to detect abnormal conditions given they may be unfamiliar with the SoCalGas facilities.[20] SoCalGas does not share the same concerns as CUE regarding its contractors, as SoCalGas selects contractors that are qualified on the necessary operator qualifications elements and are required to participate in hands-on training to verify their understanding of the inspections policies and procedures. Many of these same contractors have worked on SoCalGas facilities for many years and are very familiar with their construction and characteristics. SoCalGas is confident the qualifications and training are sufficient to identify abnormal conditions.

Contrary to CUE's statement, SoCalGas did not eliminate the meter reader positions but rather re-purposed the position into a dedicated team focused on MSA inspections including atmospheric corrosion. The DRIP inspections completed as part of DIMP are in addition to the routine maintenance inspection requirements. The routine MSA inspections are completed at least once every 3 years which provide sufficient monitoring during the implementation of the DRIP.

[19] CUE (Marcus) at 28, 36; CUE (Kick) at 5.

[20] CUE (Kick) at 3.

d. CFC

In CFC's discussion of the added advisors requested by SoCalGas' by Gas Distribution by Ms. Orozco-Mejia (Ex. SCG-04-R),[21] these will not be focused on the VIPP or BSRP replacement programs for which CFC argues to reduce funding. Instead, those advisors are focused on the main leak inventory reduction effort, which is part of routine repair work. While the advisors will conduct leak analysis and establish performance metrics, they will not have any role in "determin[ing] the optimal pace of asset replacement"[22] for these separate DIMP wholesale replacement programs. This is an entirely different effort.

For the foregoing reasons, the Commission should adopt SoCalGas' forecast as reasonable.

e. OSA

OSA states that "[w]hile it is impossible and unaffordable to replace all aging infrastructure at once, the lessons learned from [pipeline] incidents should be used to enhance SoCalGas' pipeline management programs to prevent similar incidents."[23] SoCalGas's TIMP is a continual assessment process that takes such lessons learned from pipeline incidents into account. As stated in my original testimony, the purpose of TIMP is to continually identify threats on transmission pipelines, determine the risk posed by these threats, schedule assessments to address threats, collect information about the condition of the pipeline, and take actions to minimize applicable threats and integrity concerns to reduce the risk of a pipeline failure. When an area requires remediation, immediate attention based on assessment results, or a safety issue has been identified, prompt action is taken for the safety of the public and personnel working on the pipeline, which may include pressure reduction or removing pipelines from service until a repair can be completed.[24]

[21] December 2017, Revised Direct Testimony of Gina Orozco-Mejia Addressing Gas Distribution, on behalf of SCG, Exhibit SCG-04-R (Orozco-Mejia) at 79; Ex. CFC-03-R (Roberts) at 11.

[22] Ex. CFC-03-R (Roberts) at 6.

[23] Ex. OSA-01 (Au) at 4-3.

[24] Ex. SCG-14 (Martinez) at 12.

As part of this continual assessment process of TIMP as described above, information learned from a pipeline failure and the threats identified will be evaluated to determine assessment and remediation requirements to reduce the risk of a pipeline failure in the future. SoCalGas agrees with OSA that TIMP should be expanded beyond High Consequence Areas (HCAs)[25] and for this reason has proactively over the years gone above and beyond compliance requirements by extending TIMP into less populated areas. Of the 2,300 miles of transmission pipeline that can be in-line inspected (ILI), 60% (1,380) of those miles are located in less populated areas while 80% of the HCAs are able to be in-line inspected.[26] This proactive approach to enhancing safety above and beyond compliance requirements is accomplished through adequate funding and a two-way balancing account. TIMP is an existing program with proposed costs in this GRC, including the expansion into non-HCAs, that would address the Risk Assessment Mitigation Phase (RAMP) risk of Catastrophic Damage Involving High-Pressure Gas Pipeline Incident.[27]

SoCalGas agrees that the lessons learned from the Line 235 RCA should be shared with other operators. SoCalGas can achieve this through collaborative forums, which are critical to pipeline operators and allow the industry to continue moving forward and improving. For this reason, SoCalGas are active participants in Pipeline Research Council International (PRCI), which has several projects focused on the ILI performance and evaluation of complex corrosion. As participants on the project team, SoCalGas has already provided time, data, and experience, and SoCalGas will continue to share the findings and lessons learned on Line 235 with other operators through PRCI.

[25] *See* Ex. OSA-01 (Au) at 4-4.

[26] Ex. SCG-14 (Martinez) at 3.

[27] OSA-SEU Data Request-005, Questions 4 and 6, as attached in Appendix A. Other projects and programs that are referred to in this GRC as RAMP mitigation activities are proposed to reduce SoCalGas and SDG&E's key safety risks identified through the RAMP process. Please see the tables in Appendix A.1 in the Risk Management and Policy testimony of Diana Day (Exhibit SCG-02-R/SDG&E-02-R, Chapter 1) for the GRC exhibits that address applicable RAMP risks associated with reducing the risk of a potential failure of infrastructure.

With respect to OSA's assertion that SoCalGas "needs to correct its 'systemic' problem with deficient Cathodic Protection practices,"[28] this does not accurately reflect SoCalGas' current practices. SoCalGas manages over 20,000 Cathodic Protection (CP) areas, and following the 2016 citation, SoCalGas did identify certain Districts with higher amount of CP Areas out of tolerance. However, the issue was localized and not "systemic" with only 1% of CP Areas being out-of-tolerance over a year in 2015, and currently the percentage is 0.1%. In addition, following the citation SoCalGas updated its Gas Standards to tighten the controls on the response time to CP Area, which is reflective in the additional reduction of areas being out-of-tolerance over a year from 1% to 0.1%. This progress in CP Areas is reflective of SoCalGas' continuous improvement and safety culture.

B. Shared Services O&M

SHARED O&M (TIMP and DIMP) - Constant 2016 ($000)			
	Base Year 2016	**Test Year 2019**	**Change**
SoCalGas	**$1,265**	**$3,290**	**$2,025**
ORA	**$1,265**	**$3,290**	**$2,025**
TURN	**$1,265**	**$3,290**	**$2,025**
CUE	**$1,265**	**$3,290**	**$2,025**
CFC	**$1,265**	**$3,290**	**$2,025**

1. Disputed Cost

No party appears to have disputed SoCalGas' forecast for shared service costs. SoCalGas requests that its forecast for Pipeline Integrity shared service costs be adopted.

IV. REBUTTAL TO PARTIES' CAPITAL PROPOSALS

TOTAL CAPITAL (TIMP and DIMP)- Constant 2016 ($000)					
	2017	**2018**	**2019**	**Total**	**Variance**
SOCALGAS	**$125,184**	**$125,184**	**$215,000**	**$465,368**	
ORA	**$193,425**	**$125,184**	**$215,000**	**$533,609**	**($68,241)**
TURN	**$193,425**	**$125,184**	**$215,000**	**$533,609**	**($68,241)**
CUE	**$193,425**	**$125,184**	**$504,740**	**$823,349**	**($357,981)**
CFC	**$193,425**	**$125,184**	**$145,000**	**$463,609**	**$1,759**

[28] Ex. OSA-01 (Au) at 4-4.

A. Disputed Budget Code or Capital Project 1

1. ORA

ORA recommended adopting SoCalGas' actual 2017 capital expenditures, which were higher than SoCalGas' 2017 forecast. ORA further did not contest SoCalGas' forecast for 2018 and 2019.[29] SoCalGas requests the Commission to adopt ORA's recommendation regarding the 2017 actual capital expenses, and to adopt SoCalGas' 2018 and 2019 forecast as reasonable.

2. TURN

TURN's recommendations mimicked those of ORA, therefore SoCalGas makes the same recommendation to adopt the 2017 actual capital expenses and its 2018 and 2019 forecasts.

3. CUE

SoCalGas understands CUE's concern regarding the pace of replacement rates for the VIPP and BSRP programs,[30] however it is SoCalGas' plan to continue to ramp-up the replacement rates throughout the General Rate Case cycle. For example, as part of the 2016 GRC, SoCalGas forecasted a replacement rate of 55 miles per year of early vintage steel and plastic and in 2017 completed 63 miles of replacement.[31] Because SoCalGas' forecast endeavored to strike an appropriate balance between DIMP's pipeline safety, risk reduction effectiveness, and impact on ratepayer costs, SoCalGas recommends the Commission adopt its forecast as reasonable. DIMP is a balanced program; thus, should the Commission grant additional funding, as CUE requests, any over-collection would be returned under that mechanism to the customers. As reported in the Second Interim Spending Accountability Report, the DIMP balancing account was over-collected by approximately $3.69 million (years 2012-2015).[32]

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[29] Ex. ORA-03 (Stannik) at 2.

[30] Ex. CUE (Marcus) at 6-13.

[31] CUE SCG Data Request-003, Questions 212 and 216, as attached in Appendix A.

[32] October 6, 2017, Prepared Direct Testimony of Jamie York Addressing Compliance, Appendix C, Second Interim Spending Accountability Report, on behalf of SoCalGas and SDG&E, Exhibit SCG-45/SDG&E-44 (York) at 35.

4. CFC

CFC recommends "limiting the 2019 DIMP capital budget to a 20% increase over the existing level,"[33] reasoning that "any significantly increased DIMP capital expenditures should wait until the three advisors assess the rate of closure at current spending levels, and generally produce better performance information on which to determine the optimal pace of asset replacement."[34]

SoCalGas' disagrees with CFC's proposed reduction. The basis for that proposal presumes the goal of the early vintage replacement programs is a targeted leak rate rather than the wholesale replacement of early vintage plastic and steel. While CFC seeks achievement of a target leak rate, at the same time it proposes to limit expenditures on the DIMP capital program. SoCalGas' current design of its wholesale vintage steel and plastic pipe replacement is aimed at the same goal as CFC: the elimination of leaks from those classes of pipe. SoCalGas' approach is both a systematic and programmatic one, identifying early vintage locations and then scheduling replacement in an optimized fashion based on such factors as vintage pipeline quantity, age, and available scheduling and resources.

SoCalGas understands CFC's position on gaining better performance information; however, the early vintage replacement programs (VIPP and BSRP) are important safety and risk mitigation activities that need an adequate level of funding, as generally recognized by other parties such as ORA and CUE.

Moreover, these programs have not established a target leak rate for determining levels of replacement of mains and services.[35] SoCalGas' objective is the wholesale replacement of early vintage plastic and steel pipe within the 25- to 30-year time frame described in my testimony (Ex. SCG-14).[36] These programs proactively prioritize high-risk vintages, such as plastic pipe with brittle-like cracking characteristics (e.g., Aldyl-A) and unprotected steel in order to reduce integrity risks, such as the release of gas or pipeline failures. DIMP's wholesale focus differs from routine replacement activities in Ms. Orozco-Mejia's Gas Distribution testimony (Ex. SCG-

[33] Ex. CFC-03-R (Roberts) at 6-7.

[34] *Id.* at 6.

[35] CFC-SEU-Data Request-018, Questions 1, 3-4, as attached in Appendix A.

[36] Ex. SCG-14 (Martinez) at 24-26.

04-R). Success of the program will be measured based on achieving this objective. As these programs ramp-up in the coming years, the program will be evaluating and addressing any resource or other constraints that would hinder this objective. Within the 25- to 30-year time frame, replacement of the early vintage pipelines will be prioritized by considering such criteria as pipeline age, installation conditions, and performance. Performance to this objective includes both completed leak repairs and leaks that are pending repair. With the objective of wholesale replacement of early vintage pipe and the prioritized replacement strategy, the expected outcome of this program should prove to satisfy CFC, a reduction in leaks found, with measurable results in future years.

V. CONCLUSION

SoCalGas recommends that the Commission should adopt SoCalGas' actual O&M and capital expenses for 2017 and forecasted O&M and capital expenses for 2018 and 2019 as reasonable. In general, the forecasted O&M and capital expenses were not contested. In areas of proposed reductions such as those proposed by CFC, SoCalGas maintains that a wholesale replacement implemented through risk prioritization should be the goal of early vintage plastic and steel and not a targeted leak rate driving replacement levels.

This concludes my prepared rebuttal testimony.

APPENDIX A
Data Request OSA-SEU-005 Questions 4 & 6
Data Request CUE-SCG-003 Questions 212 & 216
Data Request CFC-SEU-018 Questions 1, 3-4

OSA-SEU DATA REQUEST-005
SOCALGAS- SDG&E 2019 GRC – A.17-11-007/8
DATE RECEIVED: APRIL 25, 2018
DATE RESPONDED: MAY 4, 2018

4. On Page 29 of Exhibit SCG-14, Ms. Martinez stated the followings:

> Through the TIMP, SoCalGas continually evaluates the pipeline system and proactively takes action through inspections, replacements, and other remediation activities to improve the safety and reliability of the system.

Please explain how SoCalGas has incorporated or will incorporate the information obtained from similar outages to "improve the safety and reliability of the system.

Utilities Response 4:

For purposes of this question, SoCalGas interprets the phrase "similar outages" to refer to the two pipeline outages referenced in Question 2 and OSA's request for an explanation to refer to the incorporation of information into the Transmission Integrity Management Program (TIMP). The purpose of the TIMP is to continually identify threats on transmission pipelines, determine the risk posed by these threats, schedule assessments to address threats, collect information about the condition of the pipeline, and take actions to minimize applicable threats and integrity concerns to reduce the risk of a pipeline failure. When an area requires remediation, immediate attention based on assessment results, or a safety issue has been identified, prompt action is taken for the safety of the public and personnel working on the pipeline, which may include pressure reduction or removing pipelines from service until a repair can be completed.

As noted in the response to Question 2, work on the root cause analysis of these outages, in coordination with the CPUC's Safety and Enforcement Division (SED), is ongoing and is beyond the scope of the General Rate Case (GRC). The information obtained from the outages is incorporated into the TIMP continual assessment process described above, and the threats identified as part of these outages will be evaluated in order to determine assessment and remediation requirements to reduce the risk of a pipeline failure. Please see Exhibit SCG-14 on pages MTM-2 through MTM-3, and MTM-11 through MTM-13 for more details on the TIMP continual assessment and remediation process.

It should also be noted that D.16-08-018 directs the utilities to "[r]espond to immediate or short-term crises outside of the RAMP and GRC process" because they "follow a three-year cycle and are not designed to address immediate needs." (D.16-08-018 at 146). SoCalGas and SDG&E do not wait to respond to incidents and address safety issues in a timely manner, regardless of the timing of the GRC funding cycle.

6. Please identify the programs and projects proposed in this GRC application that would prevent the failure of infrastructures, which may have an impact on reliability and safety such as the October 2017 incident.

Utilities Response 6:

Projects and programs that are referred to in this GRC as Risk Assessment Mitigation Phase (RAMP) mitigation activities are proposed to reduce SoCalGas and SDG&E's key safety risks identified through the RAMP process. Please see the tables in Appendix A.1 in the Risk Management and Policy testimony of Diana Day Exhibit SCG-02-R/SDG&E-02-R, Chapter 1) for the GRC exhibits that address applicable RAMP risks associated with reducing the risk of a potential failure of infrastructure. For example, the Transmission Integrity Management Program (TIMP) is an existing program with proposed costs in this GRC that would address the RAMP risk of Catastrophic Damage Involving High-Pressure Gas Pipeline Incident. Please also refer to the response in Question 4 above.

CUE DATA REQUEST
CUE-SCG-DR-03
SOCALGAS 2019 GRC – A.17-10-008
SOCALGAS RESPONSE
DATE RECEIVED: JANUARY 5, 2018
DATE RESPONDED: FEBRUARY 15, 2018

212. Ex. SCG-14, p. 10:23-26, indicates that SCG "tailored" its bare steel main replacement program.

a. Does "tailored" mean that the scope of the program was reduced? If not, please explain.

b. Please provide the number of miles of bare steel main as of the end of 2016, and how many miles per year SCG would have replaced in each of the years 2017-22, inclusive, under the "wholesale replacement" it considered.

c. Please provide the miles of actual bare steel main replacement actually done in 2017.

d. Please provide the planned miles of bare steel main replacement in each year from 2017-2022, inclusive, under the "tailored" program now in effect.

e. Please provide all analysis, memos, or other documents provided to SCG management discussing the relative merits of "wholesale replacement" versus "tailored" replacement programs for bare steel main.

f. Under a "wholesale replacement" program, in what year would SCG have anticipated completing the replacement of all bare steel mains?

g. Under its current "tailored" program, in what year does SCG anticipate completing the replacement of all bare steel mains?

SoCalGas Response 212:

a. Yes, "tailored" means that the scope of the program was adjusted, in this case reduced.

b. The number of miles of bare steel as of end of 2016 is 3,287 miles. An estimate of the number of miles of bare steel that would be replaced under the "wholesale replacement" scenario was not prepared.

c. In 2017, 30 miles of bare steel was replaced.

d. SoCalGas objects to this request under Rule 10.1 of the Commission's Rules of Practice and Procedure to the extent it seeks the production of information that is neither relevant to the subject matter involved in the pending proceeding nor is likely reasonably calculated to lead to the discovery of admissible evidence, and is outside the scope of this proceeding. Subject to and without waiving these objections, SoCalGas responds as follows: SoCalGas' filed application follows the Rate Case Plan, which identifies forecasted costs for a Test Year of 2019. SoCalGas has not forecasted specific funding for years beyond 2019, which is addressed by the attrition mechanism.

SoCalGas Response 212 Continued:

Planned Replacement Bare Steel	**2017**	**2018***	**2019-2022***
Bare Steel	30 miles	22 miles	29 miles

*projected

e. See SoCalGas' RAMP Report, Chapter SCG-10 – Catastrophic Damage Involving a Medium-Pressure Pipeline Failure, Section 9.

f. SoCalGas did not calculate how many years it would take for complete replacement of bare steel mains.

g. As noted in Ms. Martinez's testimony, Exhibit SCG-14, at p. MTM-26:7-10, it is a 25- to 30-year horizon with increased level of replacement over the next 6-8 years while monitoring performance to continually review the benefits and risk reduction accomplished.

CUE DATA REQUEST
CUE-SCG-DR-03
SOCALGAS 2019 GRC – A.17-10-008
SOCALGAS RESPONSE
DATE RECEIVED: JANUARY 5, 2018
DATE RESPONDED: FEBRUARY 15, 2018
SUPPLEMENTAL: APRIL 6, 2018

216. For each year starting in 2017 and continuing through the end of "the next 6-8 years," please provide SCG's planned incremental ("above and beyond routine replacements") annual miles of replacement of:

a. "Early vintage plastic"

b. Pre-1986 plastic

c. Pre-1973 plastic

d. Pre-1986 plastic mains

e. Pre-1986 plastic services

d. Pre-1986 Aldyl-A mains

e. Pre-1986 Aldyl-A services

f. Pre-1973 mains

g. Pre-1973 services

h. Pre-1973 Aldyl-A mains

i. Pre-1973 Aldyl-A services

SoCalGas Supplemental Response 216:

Assumptions: While SoCalGas' assumptions for the forecast years were not planned to the level of granularity requested, one could use 2015 to 2017 historical average of miles of services (Plastic) replaced per mile of main (Plastic) replaced (2.61) although variation from project to project may exist and the extent of the variation has not been fully investigated. The table below combined all "Early vintage plastic" as being pre-1986.

Early Vintage Plastic (Pre-1986)	2017	2018*	2019-2022 *
Mains	9	12	22
Services	24	31	56
Total	**33 miles**	**3 miles**	**78 miles**

*estimated based on historical ratio

CUE DATA REQUEST
CUE-SCG-DR-03
SOCALGAS 2019 GRC – A.17-10-008
SOCALGAS RESPONSE
DATE RECEIVED: JANUARY 5, 2018
DATE RESPONDED: FEBRUARY 15, 2018
SUPPLEMENTAL: APRIL 6, 2018

SoCalGas Original Response 216:

SoCalGas objects to this request under Rule 10.1 of the Commission's Rules of Practice and Procedure to the extent it seeks the production of information that is neither relevant to the subject matter involved in the pending proceeding nor is likely reasonably calculated to lead to the discovery of admissible evidence, and is outside the scope of this proceeding. Subject to and without waiving these objections, SoCalGas responds as follows: SoCalGas' filed application follows the Rate Case Plan, which identifies forecasted costs for a Test Year of 2019. SoCalGas has not forecasted specific funding for years beyond 2019, which is addressed by the attrition mechanism.

The Vintage Integrity Plastic Plan (VIPP) is focused on replacement of mains, but the services associated to the mains will be replaced. So, this program is not specifically targeting service replacements. SoCalGas provides the planned annual miles of replacement below for vintage plastic; assumptions for the forecast years were not planned to the level of granularity requested in each subpart of Question 216 and thus the data is not available.

	2017	**2018***	**2019-2022***
Vintage Plastic	33 miles	43 miles	78 miles

*projected

CFC DATA REQUEST
CFC-Sempra-2019 #18
SOCALGAS 2019 GRC – A.17-10-008
SDG&E 2019 GRC – A.17-10-007
DATE RECEIVED: APRIL 26, 2018
DATE RESPONDED: MAY 11, 2018

1. SCG-14, page MTM-25, describes the VIPP Program:
"Starting in 2019, SoCalGas plans to target 78 miles of mains and associated services for replacement above and beyond routine replacements in accordance with DIMP regulations with a 25- to 30-year horizon for wholesale replacement of early vintage plastic. With a 30-year horizon, SoCalGas anticipates continuing to increase the level of replacement over the next 6-8 years while monitoring performance to continually review the benefits and risk reduction accomplished through VIPP through indicators such as leak repair and incident rates related to early vintage plastic."

a. Does Sempra distribution set target leak rates per-mile for mains and leak rates per x number of sites, for services? Please explain.

b. If so, what are those leak rates, and how were they arrived at? If not, what performance metric(s) is(are) used to determine the optimal number of leak repairs to be addressed, for future years? Please explain.

c. Over the GRC term, what are the values of the calculated benefits and risk reductions expected as the result of VIPP? Please explain.

SDG&E and SoCalGas Response 01:

a-c: No, the Vintage Integrity Plastic Plan (VIPP) does not set target leak rates for determining replacement of mains and services.. VIPP's objective is the wholesale replacement of early vintage plastic within the 25- to 30-year time frame described in my testimony (Ex. SCG-14, pgs. 24-26). Success of the program will be measured based on achieving this objective. As VIPP ramps up in the coming years, the program will be evaluating and addressing any constraints, such as resources, that would prevent this objective from being achieved. Within the 25- to 30-year time frame, replacement of the early vintage plastic pipelines will be prioritized by considering such criteria as pipeline age, installation conditions, and performance. Performance considers both completed leak repairs and leaks that are pending repair. With the objective of wholesale replacement of early vintage plastic and the prioritized replacement strategy, the expected outcome of this program will be a reduction in leaks found, with measurable results in future years. Because VIPP is part of the Distribution Integrity Management Program (DIMP), which is a mitigant to a Risk Assessment Mitigation Phase (RAMP) risk, performance metrics to quantify benefits and risk reductions are yet to be determined, such as through the future accountability reporting requirements for such, are in the ongoing Safety Model Assessment Proceeding (S-MAP), Application 15-05-002 (consolidated). Please refer to the testimony of Diana Day for more details regarding this S-MAP process (Ex. SCG-02-R/SDG&E-02-R, Chapter 1 (Day), pages DD-7 lines 23-27 and DD-17 lines 3-4). Please refer to my testimony (Ex. SCG-14, Section II, pgs. 8-10, 24-25, 27, and 31-32) for a qualitative explanation of the RAMP risk assessment for VIPP.

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3. SCG-14, page MTM-26, describes the Bare Steel Replacement Program (BSRP):
"The Bare Steel Replacement Plan (BSRP) as presented in RAMP will continue to focus on the replacement of poor performing bare steel. Starting in 2019, SoCalGas plans to target 29 miles of mains and associated services and targeted replacement of 2,000 – 4,000 services for replacement above and beyond routine replacements in accordance with DIMP regulations with a 25- to 30-year horizon for wholesale replacement of non-state-of-the-art bare steel. With a 30-year horizon, SoCalGas anticipates continuing to increase the level of replacement over the next 6-8 years, while monitoring performance to continually review the benefits and risk reduction accomplished through BSRP through indicators such as leak repair and incident rates related to bare steel. The lack of protective coating makes steel a high-risk family of pipe and has been identified by DOT and PHMSA as a family of pipe that should be evaluated for an accelerated replacement program."

a. What estimated benefits and risk reduction was achieved by BSRP in each of 2016 and 2017--or for 2015 and 2016, if complete, 2017 data are unavailable?

b. Do the BSRP replacements result in increased system capacity? Please explain. If so, how much did system capacity change due to BSRP over the two-years 2016 and 2017 (or 2015 and 2016, if applicable, per the previous sub-question)?

c. Does SCG have a target leak-rate-per-mile (or leak-rate-per-unit for Services), that it intends to achieve? Please explain.

d. If not, what benchmark(s) did SCG use, in establishing the proposed replacements to be undertaken as part of this GRC? For the 6-8 years mentioned in the quotation?

e. How will BSRP impact SCG's Mains leak rate per mile, by the end of the Test Year (i.e., by YE2019)? Please explain.

f. How will BSRP impact SCG's Mains leak rate per mile, by the end of the GRC term (i.e., by YE2021)? Please explain.

g. How many services will be replaced during 2019, strictly in order to satisfy DIMP regulations?

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DATE RESPONDED: MAY 11, 2018

SDG&E and SoCalGas Response 03:

a. Please see the response to Question 1 regarding the ongoing S-MAP proceeding's determination of the requirements for this GRC. Please refer to my testimony (Ex. SCG-14, Section II, pgs. 8-10, 26, and 31-32) for a qualitative explanation of the RAMP risk assessment for the BSRP. The miles replaced for 2015, 2016, and 2017 are:

Bare Steel (BSRP)	2015	2016	2017
Mains & Services	11 miles	25 miles	30 miles

b. No.

c-f: No, SoCalGas does not have a target leak rate per mile or per unit to achieve in determining replacement of mains and services. While a "benchmark" is not used, as referenced in the question, BSRP's objective is the wholesale replacement of poor performing bare steel within the 25- to 30-year time frame described in my testimony (Ex. SCG-14, pg. 26). Success of the program will be measured based on achieving this objective. As BSRP ramps up in the coming years, the program will be evaluating and addressing any constraints, such as resources, that would prevent this objective from being achieved. Within the 25- to 30-year time frame, replacement of the poor performing bare steel pipelines will be prioritized by considering such criteria as pipeline age, cathodic protection, and performance. Performance considers both completed leak repairs and leaks that are pending repairs. With the objective of wholesale replacement of poor performing bare steel and the prioritized replacement strategy, the expected outcome of this program will be a reduction in leaks found, with measurable results in future years. SoCalGas has not calculated the BSRP's effect on the main leak rate by year for 2019 or by the end of the GRC term.

g. The BSRP estimates the number of miles of mains and services, and individual services over the period 2019-2022, not by individual year:

Bare Steel (BSRP)	2019-2022*
Mains & Services	29 miles
Targeted Services	2,500/yr

* projected

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4. SCG-14, page MTM-27, discusses the goals of the PAAR program:
"An overall decrease in the number and consequences of pipeline incidents is the goal, but it will take many years of accumulating data to determine with confidence that there is a declining trend."
   a. Does Sempra consider the simple number of leaks repaired as a direct proxy for the reduction in the number of potential incidents? Please explain.

   b. Does Sempra use calculated consequences in prioritizing the scheduled leak repairs for developing an annual (or GRC-term) budget for leak remediation? Please explain.

SDG&E and SoCalGas Response 04:

a-b: The VIPP and BSRP programs identify pipelines for replacement based on material characteristics, environmental conditions, and historic performance. These programs do not identify or prioritize the repair of leaks. Please refer to Distribution Operations testimony (Ex. SCG-04-R Gina Orozco-Mejia) for leak mitigation and repair strategies.