Company: Southern California Gas Company (U904G)
Proceeding: 2019 General Rate Case
Application: A.17-10-007/-008 (cons.)
Exhibit: SCG-204

# SOCALGAS

# REBUTTAL TESTIMONY OF GINA OROZCO-MEJIA

# (GAS 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 GINA OROZCO-MEJIA
# (GAS DISTRIBUTION)

## I. SUMMARY OF DIFFERENCES

**Table GOM-01**[1]
**Southern California Gas Company**
**Gas Distribution O&M Test Year 2019 Estimates**
**(Thousands of Constant 2016 Dollars)**

| **TOTAL O&M** [2] - Constant 2016 ($000) | | | |
|---|---|---|---|
| | **Base Year 2016** | **Test Year 2019** | **Change** |
| SOCALGAS | 116,632 | 148,154 | 31,522 |
| ORA | 116,632 | 118,312 | 1,680 |
| CFC | 116,632 | 147,654 [3] | 31,022 |
| TURN | 116,632 | 132,944 [4] | 16,312 |
| CUE | 116,632 | 161,313 [5] | 44,681 |

**Table GOM-02**[6]
**Southern California Gas Company**
**Gas Distribution Capital Estimates**
**(Thousands of Constant 2016 Dollars)**

| **TOTAL CAPITAL** [7] - Constant 2016 ($000) | | | | | |
|---|---|---|---|---|---|
| | **2017** | **2018** | **2019** | **Total** | **Variance** |
| SOCALGAS | 278,473 | 324,801 | 347,842 | 951,116 | -- |
| ORA | 279,210 | 274,586 | 298,167 | 851,963 | (99,153) |
| CUE[8] | 278,473 | 324,801 | 367,357 | 970,631 | 19,515 |

[1] SoCalGas has identified some calculation errors and typos in the Operations & Maintenance (O&M) forecasts provided by ORA and TURN. This table shows the numbers as reported by the intervenors; however, all O&M forecasts contained in the remainder of this rebuttal reflect the corrected values. A detailed review of these corrections can be found in Appendix A.
[2] For the purpose of these comparison tables, for areas that were not discussed by the parties (e.g., TURN, CUE, CFC), it is assumed that they accepted SoCalGas' forecasts.
[3] In its testimony, CFC makes a specific recommendation for Cathodic Protection (O&M) only.
[4] In its testimony, TURN makes specific recommendations for the Main Maintenance and Service Maintenance categories only.
[5] In its testimony, CUE makes specific recommendations for Locate & Mark, Leak Survey, Main Maintenance, Service Maintenance and Tools, Fittings and Materials categories only.
[6] SoCalGas has identified some calculation errors and typos in the Capital forecasts provided by ORA and CUE. This table shows the numbers as reported by the intervenors; however, all Capital forecasts contained in the remainder of this rebuttal reflect the corrected values. A detailed review of these corrections can be found in Appendix A.
[7] For the purpose of these comparison tables, for areas that were not discussed by CUE, it is assumed that it accepted SoCalGas' forecasts.
[8] In its testimony, CUE makes specific recommendations for Supply Line Replacements, Service Line Replacements, and Regulator Stations categories only.

## II. INTRODUCTION

This rebuttal testimony regarding Southern California Gas Company's (SoCalGas or SCG) request for Gas Distribution addresses the following testimony from other parties:

- The Office of Ratepayer Advocates (ORA) as submitted by Ms. Dao Phan (Exhibit ORA-11), dated April 13, 2018.
- The Utility Reform Network (TURN) as submitted by Mr. Marcel Hawiger (Exhibit TURN-09), dated May 14, 2018 and Mr. William Perea Marcus (Exhibit TURN-03), dated May 14, 2018.
- The Coalition of California Utility Employees (CUE) as submitted by Mr. David Marcus, dated May 14, 2018, and Mr. Don Kick, dated May 14, 2018.
- Consumer Federation of California Foundation (CFC) as submitted by Mr. Tony Roberts (Exhibit CFC-03-R), dated June 4, 2018.

As a preliminary matter, the absence of a response to any particular issue in this rebuttal does not imply or constitute agreement by SoCalGas with the proposal(s) or contention(s) made by these and/or other parties. The forecasts contained in SoCalGas' direct testimony, performed at the workgroup level, are based on sound estimates of its funding requirements at the time of testimony preparation.

The forecasts presented in my testimony support SoCalGas' fundamental philosophy to achieve operational excellence, while providing safe and reliable delivery of natural gas to customers at a reasonable cost. SoCalGas' O&M and Capital requests are reasonable and fully justified. SoCalGas requests the California Public Utilities Commission (CPUC or Commission) adopt its Test Year 2019 (TY 2019) General Rate Case (GRC) forecast of $148.154 million for Gas Distribution Operations and Maintenance (O&M) expenses, which is composed of $147.879 million for non-shared service activities and $0.275 million for shared service activities.[9] SoCalGas further requests the Commission adopt its forecast for Capital expenditures in 2017, 2018, and 2019 in the amounts of $278.473 million, $324.801 million, and $347.842 million, respectively.[10]

[9] December 20, 2017, Revised Direct Testimony of Gina Orozco-Mejia, Exhibit SCG-04-R (Gina Orozco-Mejia) at vi.
[10] *Id.*

Moreover, these forecasts were extracted based on historical spending and prudent consideration of future work and economic growth that is reasonably expected. SoCalGas remains committed to invest in its employees, pipeline assets, and support services that mitigate risks associated with safety, system reliability, and infrastructure integrity. These commitments require Gas Distribution to respond to regulations, implement changes to business processes, increase data analysis, affect changes impacting Gas Standards, update technology to synchronize with business process changes, and adequately train employees to implement changes in work processes and technology.

ORA's report deprioritizes and in some cases, neglects cost impacts to SoCalGas' Gas Distribution that are currently underway and reasonably anticipated in the future. These cost impacts and/or upward trends include: Risk Assessment Mitigation Phase (RAMP) and risk reduction efforts, aging infrastructure, system expansion, franchise obligations, increasing regulations, customer and load demands, and workforce training and qualification.

As the first time RAMP-to-GRC integration for California utilities,[11] ORA's methodology and rationale need to reflect a more thorough analysis of SoCalGas' key safety risks and should not only rely on traditional forecasting methods.[12] ORA's analysis of Gas Distribution failed to address these activities from a risk reduction perspective, even though SoCalGas emphasized these RAMP items during the RAMP-to-GRC integration process. ORA's sole reliance on alternative forecasting methodologies would produce inadequate funding for these safety-related activities and are not aligned with the Commission's intent to shift the GRC paradigm to a risk-informed process.[13] Given the Commission's directive to complete RAMP and to assess risk reduction effectiveness, ORA did not explain, with evidence and

[11] A discussion of the evolution of the Company's risk framework can be found in the direct testimonies of Ms. Diana Day and Ms. Jamie York (Exhibit SCG-02-R/SDG&E-02-R, Chapter 1: Risk Management Policy (Day) and Chapter 3: RAMP to GRC Integration (York)) and in the rebuttal testimony of Ms. York. Exhibit SCG-245/SDG&E-244, Rebuttal Testimony of Jamie York, June 18, 2018 at JY-6-11.
[12] *See* April 13, 2018, ORA Report on Risk Management Policy; Enterprise Risk Management Organization; RAMP/GRC Integration; Pipeline Integrity; SoCalGas PSEP, Exhibit ORA-03, Parts I-V (Nils Stannik) and Part V(II)(F) (Pui-Wa Li) at 15 ("ORA recommends that the data produced by the RAMP and integrated into this GRC be used to inform funding decisions, but not to dictate these decisions or bypass a traditional review of proposals and their alternatives.") (emphasis in original).
[13] *See* A.17-10-007/-008, Assigned Commissioner's Scoping Memorandum and Ruling (issued Jan. 29, 2018) at 4-5 ("Whether or not the Risk Assessment Mitigation Phase (RAMP) report risks have been adequately integrated into the GRC applications and whether mitigation programs and projects that address safety risks are reasonably balanced with costs associated with such programs and projects.").

support, how or why these proposed RAMP activities do not reduce the safety risk nor enhance safety.

Similarly, ORA proposes significant reductions that, even conservatively, are inadequate to keep up with the maintenance and operations and the reasonable rate of replacement of certain facilities, such as service lines and regulator stations. In some cases, ORA was selective in the application of its own Last Recorded Year (LRY) forecast methodology, which unreasonably reduced SoCalGas' forecast. For example, in the category of Main Maintenance (discussed below), ORA selectively excluded the 2017 recorded amounts, which under the LRY methodology reduced the forecast by $4.633 million. In other cases, ORA was selective in that it deviated from its own rationale to use as many data points as possible as it stated in the last GRC.[14] However, the integrity and longevity of SoCalGas' system relies on a balance between prolonging existing infrastructure to reasonably manage costs and prudently replacing infrastructure to prevent system failure or a major breakdown. The reality is that, while age is just one factor that SoCalGas uses to assess the replacement of equipment and infrastructure, all parts of the pipeline system have a finite life expectancy. The continued use of existing infrastructure and equipment can only be stretched so far before they need to be replaced.

Unfortunately, ORA dismisses the upward trends associated with maintaining and replacing existing infrastructure and does not account for SoCalGas' aging infrastructure. Part of SoCalGas' mitigation efforts under RAMP are to address key risks identified by their RAMP Report[15] chapter number: SCG-1 Catastrophic Damage Involving Third-Party Dig-Ins, SCG-2 Employee, Contractor, Customer and Public Safety, SCG-4 Catastrophic Damage Involving High-Pressure Pipeline Failure, and SCG-10 Catastrophic Damage Involving Medium-Pressure Pipeline Failure.[16] Evaluation, maintenance, and replacement activities help mitigate catastrophic damage on our pipes and in turn, support the safety of employees, contractors, and the general public. The imperative nature of these risks are directly related to the safety and

[14] *See* Application (A.) 14-11-003/-004 (cons.), Ex. ORA-10 (Phan) at 8.
[15] Investigation (I.) 16-10-015/ -016 (cons.), 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.
[16] Ex. SCG-04-R (Orozco-Mejia) at 14, Table GOM-07.

reliability of the natural gas system and requires utmost consideration in forecasting methodologies and overall funding.

### A. ORA

ORA issued its report on Gas Distribution on April 13, 2018.[17] The following is a summary of ORA's positions:

For O&M, ORA recommends a reduction of $29.945 million from SoCalGas' non-shared O&M TY 2019 forecast of $148.154 million. ORA proposes reductions to nine out of the eleven non-shared O&M workgroups for TY 2019, resulting in an overall decrease of $29.945 million or 20% of SoCalGas' total request. ORA accepts SoCalGas' request for $0.275 million for Shared O&M expenses. Below is a summary of ORA's proposals for SoCalGas' O&M categories:

- Use a two-year average (2016 and 2017) instead of SoCalGas' five-year (2012-2016) linear trend forecast for Locate and Mark, Leak Survey, Measurement and Regulation, Cathodic Protection, Service Maintenance, Field Support, and Operations and Management.[18]
- Use the last recorded year (2016) forecast for Main Maintenance, instead of SoCalGas' five-year (2012-2016) linear trend.[19]
- Use the last recorded year (2016) instead of SoCalGas' five-year (2012-2016) average for Main Maintenance Damage Credits.[20]
- Use the base year (2016) amount plus incremental activities for Field Support, instead of SoCalGas' five-year (2012-2016) average.[21]
- Use a five-year (2013-2017) average for Tools, Fittings and Materials, instead of SoCalGas' five-year (2012-2016) linear trend.[22]
- Disagrees with SoCalGas' incremental requests for bi-annual high-pressure pipe leak surveys, leak repairs, Meter Set Assembly (MSA) maintenance work, meter guard replacements, inaccessible MSA disconnects, and operations and management personnel.

For Capital, ORA recommends a reduction of $87.965 million from SoCalGas' Capital forecast of $951.116 million for the three-year period (2017 – 2019). ORA

[17] April 13, 2018, ORA Report on SoCalGas Gas Distribution and Gas Control & System Operations/Planning, Exhibit ORA-11 (Dao A. Phan).
[18] *Id.* at 11, 13, 18, 20, 29, 35, 40.
[19] *Id.* at 22.
[20] *Id.* at 48-49.
[21] *Id.* at 35.
[22] *Id.* at 37.

proposes reductions to eleven out of the sixteen capital workgroups, resulting in an overall decrease of $87.965 million or 9% of SoCalGas' total request. Below is a summary of ORA's proposals for SoCalGas' Capital categories:

- Recommends the 2017 adjusted-recorded value for all Capital categories for the 2017 capital forecast.
- Use the last recorded year (2016) instead of SoCalGas' five-year (2012-2016) average for Main and Stub forfeitures for New Business Forfeitures.[23]
- Use a two-year average (2016-2017) instead of SoCalGas' five-year (2012-2016) linear trend for the 2019 capital forecast for Service Replacements and Capital Tools.[24]
- Disagrees with SoCalGas' incremental request for Standardizing Locate and Mark Tools in 2018.
- Use a two-year average (2016-2017) instead of SoCalGas' five-year (2012-2016) linear trend for 2018 and 2019 capital forecast for Main & Service Abandonments.[25]
- Use a two-year average (2016-2017) for Regulator Stations instead of SoCalGas' forecast base-year (2016) plus incremental expenditures to accelerate replacement of older regulator stations for the 2018 and 2019 forecast.[26]
- Use a three-year average (2015-2017) instead of SoCalGas' five-year (2012-2016) linear trend for the 2018 and 2019 capital forecast for Cathodic Protection.[27]
- Use a three-year average (2015-2017) instead of SoCalGas' five-year average (2012-2016) for the 2018 and 2019 capital forecast for Franchise – Freeway.[28]
- Use a three-year average (2015-2017) instead of SoCalGas' five-year average (2012-2016) for the 2018 and 2019 capital forecast for Franchise – Pipeline.[29]
- Recommends against SoCalGas' request for meter guard installations for the 2018 and 2019 forecast.[30]
- Recommends against SoCalGas' incremental requests for new meter installations and curb meter replacements in 2018.[31]

[23] *Id.* at 48-49.
[24] *Id.* at 57, 78.
[25] *Id.* at 58.
[26] *Id.* at 60.
[27] *Id.* at 66:18-19.
[28] *Id.* at 68:15-16.
[29] *Id.* at 69:23-70:2.
[30] *Id.* at 71:16-17.
[31] *Id.* at 71, 84.

**B. TURN**

TURN submitted its testimony on Gas Distribution on May 14, 2018.[32] The following is a summary of TURN's positions:

For O&M, TURN recommends a reduction of $14.909 million from SoCalGas' non-shared O&M TY 2019 forecast of $148.154 million. TURN proposes reductions to two out of the eleven non-shared O&M workgroups for TY 2019. TURN does not provide testimony with regards to the remaining O&M categories. Below is a summary of TURN's proposals for SoCalGas' O&M categories:

- The trending analysis conducted by SoCalGas for Main Maintenance is inappropriate and inconsistently treats damage credits between the Main Maintenance and Service Maintenance categories. TURN recommends an average for the whole category instead.
- The request for incremental funding for repairing the leak "backlog" could overlap with the request in Advice Letter 5211 (Senate Bill (SB) 1371 Natural Gas Leak Abatement New Environmental Regulatory Balancing Account (NERBA)). The Commission should fund repairs of any Grade 3 backlog in existence as of the end of 2017 in only one proceeding.
- The trending analysis conducted by SoCalGas for Service Maintenance is inappropriate, and TURN supports ORA's recommendation to use a two-year average (2016 and 2017) instead of SoCalGas' five-year (2012-2016) linear trend forecast.

TURN also recommends that expenses related to clothing and other gear containing the utilities' name and logo (excluding uniforms, hard hats, etc.), which in its view are largely promotional and image-building, should be removed from SoCalGas' case.[33]

TURN does not provide testimony for any Capital categories.

[32] May 14, 2018, Prepared Testimony of Marcel Hawiger Addressing Gas Distribution O&M, on behalf of The Utility Reform Network [TURN], Exhibit TURN-09 (Hawiger); May 14, 2018, Prepared Testimony of William Perea Marcus Addressing Various Results of Operations Issues, on behalf of TURN, Exhibit TURN-03 (Marcus).
[33] Ex. TURN-03 (Marcus) at 77-78.

### C. CUE

CUE submitted its testimony on Gas Distribution on May 14, 2018.[34] The following is a summary of CUE's positions.

For O&M, CUE recommends an additional $13.159 million above SoCalGas' non-shared O&M TY 2019 forecast of $148.154 million. CUE proposes additions to five out of the eleven non-shared O&M workgroups for TY 2019. CUE does not provide testimony with regards to the remaining O&M categories. Below is a summary of CUE's proposals for SoCalGas' O&M categories:

- SoCalGas should be required to eliminate its leak backlog by the end of this GRC cycle (2021). SoCalGas' current proposed 2,400 incremental leak repairs in 2019 should be increased to 6,762 annual incremental leak repairs.
- The Commission should order SoCalGas to move to a 3-year cycle for leak survey for all pipe not already subject to a more frequent inspection interval (e.g., non-business district, non-Aldyl-A pipe) as this is not being addressed in the SB 1371 proceeding; resulting survey and repair costs need to be addressed in this proceeding.
- Increase in annual Aldyl-A leak survey due to CUE's higher estimation of pre-1986 plastic main mileage.
- SoCalGas should be ordered to conduct a study and field comparison of advanced leak detection technologies at an incremental cost of $0.500 million.
- Increase of $0.915 million to TY 2019 for increased growth rate for locate and mark tickets.
- Increase of $0.560 million in TY 2019 for additional standbys for observation on high pressure pipelines.
- Increase the MSA maintenance orders forecast to 9,450 in 2019, instead of SoCalGas' planned 8,500 incremental orders.

For Capital, CUE recommends an additional $20.515 million above SoCalGas' Capital forecast of $951.116 million for the three-year period (2017-2019). CUE proposes additions to three out of the sixteen capital workgroups for TY 2019, resulting in an increase in Supply Line Replacements, Service Replacements, and Regulator Stations. CUE does not provide testimony for the remaining Capital categories. Below is a summary of CUE's proposals for SoCalGas' Capital categories:

[34] May 14, 2018, Opening Testimony of David Marcus, on behalf of the Coalition of California Utility Employees [CUE], Exhibit CUE (Marcus).

- Increase funding for the replacement of non-bare steel pipe services that have reached their average life.
- SoCalGas should be required to achieve the steady-state regulator stations replacement rate of 56 regulator stations per year in this GRC.
- Increase the replacement rate of supply lines to 4.7 miles per year.

### D. CFC

CFC submitted its revised testimony on Gas Distribution on June 4, 2018.[35] For O&M, CFC recommends a reduction of $0.500 million from SoCalGas' Cathodic Protection TY 2019 forecast of $18.322 million. CFC does not provide testimony with regards to the remaining O&M categories. CFC also recommends that Gas Distribution's TY 2019 revenue requirement be reduced by $27.9 million to reflect CFC's estimate for unaccounted for gas.[36] CFC does not provide testimony for any Capital categories.

## III. GENERAL REBUTTAL – FORECASTING METHODOLOGY[FRH1]

This section addresses ORA's general position that a "Last Recorded Year" (LRY) methodology is required or binding for a historical trend scenario spanning three or more years. Typically, ORA recommended the LRY methodology, but would include the average of the last two years of recorded data (2016-2017) to account for recent activity for many of the O&M and Capital areas in Gas Distribution. In other instances, ORA uses the LRY methodology as a base year method by taking the 2016 recorded year. Regardless, ORA used the LRY in lieu of the five-year (2012-2016) linear trend that SoCalGas used. SoCalGas developed its forecasts based on actual historical data and facts that support the use of a linear trend and account for growth and other drivers that were overlooked by ORA. While SoCalGas will rebut ORA's forecast for each specific area below, SoCalGas provides a general rebuttal to ORA's position regarding the LRY methodology.

### A. SoCalGas' Five-Year Linear Trend Forecasting Methodology Approach

The Rate Case Plan (RCP) directs the utility to file a revenue request, based on its estimated operating costs and revenue needs for the test year. The request is then submitted for

[35] June 4, 2018, Prepared Errata Testimony of Tony Roberts Addressing Gas Distribution, on behalf of the Consumer Federation of California [CFC], Exhibit CFC-03-R (Roberts).
[36] Ex. CFC-03-R (Roberts) at 11.

the Commission to consider and ultimately to determine a reasonable authorization. In this particular GRC, the test year is 2019 (TY 2019).

In preparing projections for the TY 2019 forecast, SoCalGas' Gas Distribution Operations reviewed historical spending levels and units of work to develop an assessment of future needs and associated risks. This analysis entailed a review of historical spending (2012-2016) and considered the underlying cost drivers. Depending on the future expectations for underlying cost drivers, a primary forecast methodology was selected. SoCalGas utilized the following methodologies: forecasting based on historical averages, simple linear trending of historical data, 2016 adjusted recorded base year spending, and zero based.

In addition, incremental work, above historical spending, performed to maintain the safe and reliable operation of the distribution system and related work processes, were identified and considered. These new or more extensive work elements were then subjected to an analytical calculation to determine the amount of incremental funding needed. The overall result is a forecast, developed using historical data, and activity drivers with the addition of these incremental expenses.

In the course of preparing the Gas Distribution GRC forecasts, SoCalGas continued to evaluate the scope, schedule, resource requirements, and synergies of RAMP-related projects and programs. These RAMP efforts include costs to mitigate Gas Distribution risks, primarily associated with customer, public, employee and contractor safety, system reliability, regulatory and legislative compliance, and pipeline system integrity, as discussed in my direct and rebuttal testimonies.

Furthermore, in May of 2016 the SoCalGas implemented the Fueling our Future (FOF) initiative to examine operations across the Company and to identify opportunities for efficiency improvements, as described in the FOF Policy testimony of Snyder (adopted by David Baron) and Clark (adopted by Don Widjaja) (Exhibit SCG-03/SDG&E-03). Through this process, ideas were generated, reviewed, analyzed, and targeted for implementation from 2017 through TY 2019. As part of this initiative, SoCalGas' Gas Distribution has included an anticipated cost savings in the amount of $4.742 million during TY 2019.

**B. SoCalGas' RAMP Forecasting Methodology Approach**

As mentioned in the Introduction of Jamie York's rebuttal testimony (Exhibit SCG-202), the RAMP-to-GRC integration adheres to the Commission's modified RCP in Decision (D.) 14-

12-025.[37] SoCalGas presents and highlights RAMP information in this rebuttal based on the aforementioned decision.

As part of the RAMP-to-GRC integration process, SoCalGas evaluated the scope, schedule, resource requirements, and synergies of RAMP-related projects and programs. The RAMP Report proposed mitigation activities to reduce identified safety risk levels. Based on this RAMP analysis, SoCalGas included RAMP mitigation activities into the GRC. My testimony discusses and includes costs to mitigate the RAMP risks SCG-1 Catastrophic Damage Involving Third Party Dig-Ins, SCG-2 Employee, Contractor, Customer and Public Safety, SCG-4 Catastrophic Damage Involving High-Pressure (HP) Pipeline Failure, and SCG-10 Catastrophic Damage Involving Medium-Pressure (MP) Pipeline Failure.[38] In developing SoCalGas' request, priority was given to these key safety risks to assess which mitigation activities Gas Distribution currently performs and what incremental efforts are needed to further mitigate these risks. While the starting point for consideration of the risk mitigation efforts and costs was the RAMP Report, as described in my testimony, further evaluation may have resulted in changes to the scope, schedule, and costs; therefore, the incremental costs of risk mitigation sponsored in my testimony may differ from those first identified in the RAMP Report.

Furthermore, SoCalGas assumed that many of the incremental RAMP-related mitigation activities were already accounted for in the base (i.e., RAMP Embedded Base Costs) when using a five-year linear trend as the base forecast methodology. This was done to prevent double counting of upward pressures.

ORA's dismissal of the five-year historical linear trend methodology used by SoCalGas effectively disallows funding of these embedded RAMP-related costs in SoCalGas' forecasts, and consequently impacts the mitigation of safety and reliability risks. ORA recommends forecast reductions in many of the RAMP risk mitigation activities including locate and mark, leak detection, leak repair, leak survey, cathodic protection, measurement and regulation, main maintenance, service maintenance, operations and management (operator qualification and clerical), meter guard replacement, service line replacements, regulator station replacements, standardized locate and mark tools, and upgrading Nomex coveralls and fresh air equipment.

[37] Ex-SCG-202 (York) at 2:4-17; *See also* SB No. 900, Statutes of 2014, Chapter 552 (issued September 25, 2014).
[38] Ex. SCG-04-R (Orozco-Mejia) at 14, Table GOM-07.

Not only would the ORA selected forecast methodologies for Gas Distribution result in reductions in these areas, but ORA did not acknowledge these RAMP risks or discuss how these activities would be affected by its recommendations.

The tables below provide a summary of the relationship between O&M and capital activities and the key RAMP risk mitigation actions supported by these activities. In addition, my revised direct testimony provides a summary of RAMP related O&M and Capital costs by workpaper number.[39]

[39] *Id.* at 15, 16, Table GOM-08 and Table GOM-09.

**Table GOM-03**
**Southern California Gas Company**
**Gas Distribution O&M Activities Supporting Key RAMP Risks**

| O&M Activities | SCG-1 Catastrophic Damage Involving Third Party Dig-Ins | SCG-2 Employee, Contractor, Customer and Public Safety | SCG-4 Catastrophic Damage Involving HP Pipeline Failure | SCG-10 Catastrophic Damage Involving MP Pipeline Failure |
|---|---|---|---|---|
| 1. Locate & Mark | X | | X | X |
| 2. Leak Survey | | X | X | X |
| 3. Measurement & Regulation | | | X | X |
| 4. Cathodic Protection | | X | X | X |
| 5. Main Maintenance | | X | X | |
| 6. Service Maintenance | | X | | X |
| 7. Field Support | X | X | X | X |
| 8. Operations Management & Training | X | X | X | X |
| 9. Regional Public Affairs | X | X | | |

**Table GOM-04**
**Southern California Gas Company**
**Gas Distribution Capital Activities Supporting Key RAMP Risks**

| Capital Activities | SCG-1 Catastrophic Damage Involving Third Party Dig-Ins | SCG-2 Employee, Contractor, Customer and Public Safety | SCG-4 Catastrophic Damage Involving HP Pipeline Failure | SCG-10 Catastrophic Damage Involving MP Pipeline Failure |
|---|---|---|---|---|
| 1. Supply Line Replacements | | | X | X |
| 2. Main Replacements | X | X | X | X |
| 3. Service Replacements | | | | X |
| 4. Main & Service Abandonments | | | | X |
| 5. Regulator Stations | | | X | X |
| 6. Cathodic Protection Capital | | | X | X |
| 7. Other Distribution Capital Projects & Meter Guards | | X | X | X |
| 8. Measurement & Regulation Devices | | | X | X |
| 9. Capital Tools | X | X | X | X |
| 10. Field Capital Support | | X | X | X |

### C. ORA's LRY Forecasting Methodology Approach

Although ORA typically relied on the LRY methodology throughout its testimony as discussed above, ORA was inconsistent with its selection and application of forecast methodologies. ORA's selective methodologies have the effect of artificially lowering SoCalGas' forecasts in many areas, including Leak Survey and Service Maintenance, to a level even lower than the 2017 actual expenses. Furthermore, in areas where ORA's typical LRY forecast methodology would produce a higher and more favorable value for SoCalGas, ORA opted for an alternative methodology, which in most cases, produced a lower value. In some cases, ORA failed to provide any substantive data or rationale behind its selection.

ORA disputes SoCalGas' use of the five-year linear trend to forecast expenditures. In cases where SoCalGas used a linear trend, "ORA recommends using the LRY, or the two-year (2016 and 2017) average, or the five-year average," in lieu of the trend.[40] However, ORA's approach is incomplete because it ignores ongoing work drivers and historical cost trends, which produce unreasonable results. As previously discussed, SoCalGas analyzed each work category and associated drivers to determine future expectations and associated cost forecast. Where the trend methodology was used, the data and supporting facts clearly demonstrate that the work and/or unit costs have trended upwards and that the trend will continue to do so throughout the GRC period. The five-year linear trend appropriately incorporates these considerations, which ORA's LRY methodology leaves out.

ORA's approach also fails to recognize that costs to complete impacted Gas Distribution activities are continuing to grow. If SoCalGas had selected ORA's LRY forecast methodology, it would require forecasting for additional incremental increases to account for this growth in work and/or unit costs. Therefore, ORA's approach is unreasonable because it is incomplete.

Trends indicate a general movement along a directional line that does not specifically require an exact rigid placement for each and every data point. Whether a particular year's data point is higher or lower than the trend line, the purpose of a trend is to capture the general movement of the activity or cost. Therefore, SoCalGas' approach to use a five-year (2012-2016) linear trend to forecast its TY 2019 is appropriate and should be authorized by the Commission.

[40] Ex. ORA-11 (Phan) at 6.

In fact, the same ORA analyst stated in her TY 2016 GRC testimony that "data from as many years as possible should be used for a more reliable forecast."[41] Thus, ORA's LRY forecast methodology falls short in including all the necessary information and in some areas, fails to produce supporting data and rationale for its selected forecasting methodology. For these reasons and the additional reasons provided in each specific O&M area below, the Commission should deny ORA's proposal and adopt SoCalGas' forecast.

**1. Forecasting Methods are Guidelines, not Rigid Requirements**

ORA justifies the LRY methodology by focusing on language from two CPUC decisions in 1989 (Pacific Gas and Electric Company's (PG&E) 1990 GRC (D.89-12-057)) and 2015 (Southern California Edison Company's (SCE) 2015 GRC (D.15-11-021)). In both cases, the Commission appears to be making an assessment of the forecast methodologies used by the parties and acknowledging their applicability. However, at no point does the Commission mandate this approach as the only methodology for developing test year forecasts, even specifically for trend scenarios. Nonetheless, ORA cites this almost thirty-year-old Commission decision to support its LRY methodology.[42]

However, a 2012 GRC decision has indicated that methodologies are highly case specific, dismissing the notion that a LRY methodology is required or binding for trend scenarios.[43] For example, the Commission in SCE's 2012 GRC made clear that "forecasting principles articulated in other decisions are important guidelines for the Commission, ***but are not dogma to be rigidly imposed***."[44] The Commission stated that "[s]everal different methods can be used to calculate test year estimates of expenses, e.g., linear trending, averaging (e.g., five-year average (5YA) recorded expenses), last recorded year (LRY), and budget based estimates."[45]

Indeed, in the 1989 decision (PG&E's 1990 GRC) itself, the Commission recognized that this LRY method was a mutually agreeable principle among the parties at issue: "[f]rom these descriptions of the parties' methodologies, we may discern ***general agreement*** on certain ***principles*** for developing a base estimate of 1990 expenses."[46]

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[41] A.14-11-003/-004 (cons.), Ex. ORA-10 (Phan) at 8.
[42] Ex. ORA-11 (Phan) at 6 (quoting D.89-12-057 at 15).
[43] *See* D.12-11-051 at 15 ("Basic forecasting principles are also subject to interpretation and application on a case-by-case basis.").
[44] *Id.* (emphasis added).
[45] *Id.* at 13.
[46] D.89-12-057 at 15.

This is not the case for SoCalGas and ORA's opposing methodologies in this TY 2019 GRC. SoCalGas is not required to use ORA's LRY method, as ORA's testimony implies. In fact, the same ORA analyst has not used nor even mentioned this LRY method for trend scenarios for Gas Distribution forecasts in at least the last two GRCs for SoCalGas. Furthermore, in SoCalGas' 2016 GRC, the same ORA analyst agreed with SoCalGas' use of a linear trend and actually proposed a five-year trend, "[w]hile ORA does not oppose using a linear trend to forecast test year expenses for Locate and Mark in this GRC, ORA believes that data from as many years as possible should be used for a more reliable forecast."[47]

Even in the 1989 decision that ORA cited for support in this TY 2019 GRC, the Commission only acknowledged PG&E's and the Division of Ratepayer Advocates' (DRA) discussion of the use of the LRY method, but at no point made the LRY methodology dispositive for trend scenarios nor did it bind utilities, parties, or future Commissions in future GRCs.

Additionally, ORA's testimony relies on a more recent 2015 decision involving SCE that similarly quotes the 1989 Decision's language.[48] However, ORA improperly omits the language preceding the quote, which says:

> *[B]oth parties cite to the PG&E 1990 GRC to distinguish between averaging and LRY:* LRY should be used when recorded figures have been stable or trending in a certain direction for three or more years whereas averaging is used for accounts with "significant fluctuations in recorded expenses from year to year."[49]

The complete context shows that the Commission was acknowledging an assessment of the two specific methodologies that the parties were considering in that particular case: averaging and LRY. Again, at no point did the Commission adopt the assessment as dispositive.

### 2. An Unadjusted LRY Method Inadequately Accounts for Incremental Activities

In addition, in the 1989 decision the Commission acknowledged that even when the LRY methodology is used, it can be adjusted to account for anticipated changes stating,

> [o]nce a base 1990 estimate is established, both PG&E and DRA determine whether there are specific changes in the level of expenses in a particular account, which are known or reasonably expected to occur in 1990. If so, the base estimate is adjusted to account for these anticipated changes.[50]

[47] A.14-11-003/-004 (cons.), Ex. ORA-10 (Phan) at 8.
[48] Ex. ORA-11 (Phan) at 6 (citing D.15-11-021 at 210; D.89-12-057 at 15).
[49] D.15-11-021 at 210 (quoting D.89-12-057 at 15) (emphasis added).
[50] D.89-12-057 at 15.

In many cases where SoCalGas used a five-year linear trend, it forecasted that the selection of a trend would cover incremental costs and did not make such an adjustment, as noted in the 1989 decision. SoCalGas did not add an incremental increase for these activities on top of the base trend forecast (i.e., a base year plus incremental costs method) to prevent double counting.

Based on the above statements, ORA's use of the unadjusted LRY method fails to account for these incremental costs because the last one or two recorded years (i.e., a base year method or average of last two years method) would not reflect that incremental level of activity. ORA's dismissal of the five-year historical linear trend used by SoCalGas has the effect of disallowing funding required to address areas where work and/or unit costs continue to trend upward. This involves activities associated with enhancing risk reduction, system expansion, franchise obligations, increasing regulations, customer and load demands, and workforce training and qualification.

For example, increasing regulations such as the Dig Safe Act of 2016, contribute to the increase of work and/or unit costs. Known formally as SB 661, the Dig Safe Act of 2016 requires any person, agency or state agency, who plans on conducting an excavation to contact the appropriate regional notification center before starting the excavation.[51] Furthermore, it established a Board with the power to enforce the law and issue fines.[52] This regulation is expected to increase the number of locate and mark tickets submitted to the regional notifications centers. As noted in SoCalGas' RAMP Report, damages resulting from excavation activity is the number one RAMP risk that represents the greatest threat to SoCalGas' pipeline infrastructure with potential consequences to public safety.[53] However, the incremental work and associated costs are embedded in the five-year linear trend SoCalGas used for its base forecast methodology and did not request funding for a separate incremental increase item. By using an unadjusted LRY method, ORA effectively disallows the funding requested for this incremental work to address the projected increase in locate and mark tickets caused by the Dig Safe Act that would

[51] *See* SB No. 661, Statutes of 2016, Chapter 809 (issued September 29, 2016).
[52] *Id.*
[53] I.16-10-015/-016 (cons.), Administrative Law Judge's Ruling including Safety and Enforcement Division Report into Record and Scheduling Comments (issued Mar. 9, 2017), Attachment A at 22 (Risk and Safety Aspects of Risk Assessment and Mitigation Phase Report of San Diego Gas & Electric Company and Southern California Gas Company) *available at* http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M179/K248/179248872.PDF.

also help prevent excavation damages. For the above stated reasons, SoCalGas proposes the Commission adopt SoCalGas' forecasts in lieu of ORA's.

## IV. REBUTTAL TO PARTIES' O&M PROPOSALS

### A. Non-Shared Services Gas Distribution O&M Expenses

**Table GOM-04**
**Southern California Gas Company**
**Gas Distribution Non-Shared O&M Test Year 2019 Estimates**
**(Thousands of Constant 2016 Dollars)**

| **NON-SHARED O&M**[54] - Constant 2016 ($000) | | | |
|---|---|---|---|
| | **Base Year 2016** | **Test Year 2019** | **Change** |
| SCG | 115,943 | 147,879 | 31,936 |
| ORA | 115,943 | 117,934 | 1,991 |
| CFC | 115,943 | 147,379[55] | 31,436 |
| TURN | 115,943 | 132,970[56] | 17,027 |
| CUE | 115,943 | 161,038[57] | 45,095 |

My revised direct testimony fully supports TY 2019 non-shared services for Gas Distribution O&M expenditures in the amount of $147.879 million. SoCalGas developed this forecast based on a review of 2012 to 2016 historical spending with consideration of new and/or incremental changes in the activities that impact future revenue requirements. SoCalGas' Gas Distribution forecasts also include costs to mitigate RAMP risks discussed in Section III.B. above.[58] Furthermore, SoCalGas included efficiency savings in the amount of $4.742 million during TY 2019 forecasted through its FOF effort.

The following sections respond to O&M arguments presented by ORA, TURN, CUE, and CFC, and confirm that SoCalGas' projections are substantially supported, reasonable, and should ultimately be adopted by the Commission in their entirety. Each section provides an

[54] For the purpose of these comparison tables, for areas that were not discussed by the parties (e.g., TURN, CUE, CFC), it is assumed that the parties accepted SoCalGas' forecasts.
[55] In its testimony, CFC makes a specific recommendation for Cathodic Protection (O&M) only.
[56] In its testimony, TURN makes specific recommendations for Main Maintenance and Service Maintenance categories only.
[57] In its testimony, CUE makes specific recommendations for Locate & Mark, Leak Survey, Main Maintenance, Service Maintenance, and Tools, Fittings and Materials categories only.
[58] Ex. SCG-04-R (Orozco-Mejia) at 14, Table GOM-07.

introductory table showing the expenditure amounts proposed by each of the parties. In addition, each section below summarizes the work activities and SoCalGas' forecasting methodology; however, a full discussion can be found in Sections III and IV of my revised direct testimony.[59]

In summation, ORA proposes reductions to nine out of the eleven non-shared O&M workgroups for TY 2019, resulting in an overall decrease of $29.945 million or a 20% reduction of SoCalGas' total request. ORA did not dispute the Asset Management or Regional Public Affairs workgroups.[60] ORA's recommended amount of $117.934 million for TY 2019 is even lower than SoCalGas' actual expenditures in 2017 by $8.336 million. ORA's recommendation does not provide sufficient funding to address required operations and maintenance work, including safety, compliance, and system integrity activities for the Gas Distribution system for TY 2019.

CFC proposes a reduction to Cathodic Protection, resulting in an overall decrease of $0.500 million. CFC did not provide forecasts for other O&M workgroups.

TURN proposes reductions to Main Maintenance and Service Maintenance, resulting in an overall decrease of $14.909 million. TURN did not provide forecasts for other O&M workgroups.

CUE proposes increases to Locate and Mark; Leak Survey; Main Maintenance; Service Maintenance; and Tools, Fittings, and Materials; resulting in an overall increase of $13.159 million. CUE did not dispute the remaining O&M workgroups.

[59] *Id*. at 28-90.
[60] Ex. ORA-11 (Phan) at 38, 42-43.

**Table GOM-05**
**Southern California Gas Company**
**Gas Distribution Non-Shared O&M Test Year 2019 Estimates**
**(Thousands of Constant 2016 Dollars)**

| | Position of Party | | | | | Difference Between Party and SCG | | | |
|---|---|---|---|---|---|---|---|---|---|
| | SCG | ORA | CFC | TURN | CUE | (ORA-SCG) | (CUE-SCG) | (TURN-SCG) | (CFC-SCG) |
| Field O&M – Locate and Mark | 16,050 | 14,284 | 16,050 | 16,050 | 17,525 | (1,766) | - | - | 1,475 |
| Field O&M – Leak Survey | 10,711 | 8,874 | 10,711 | 10,711 | 11,310 | (1,837) | - | - | 599 |
| Field O&M – Measurement and Regulation | 14,888 | 13,150 | 14,888 | 14,888 | 14,888 | (1,738) | - | - | - |
| Field O&M – Cathodic Protection | 18,322 | 14,300 | 17,822 | 18,322 | 18,322 | (4,022) | (500) | - | - |
| Field O&M – Main Maintenance | 20,772 | 10,139 | 20,772 | 11,470 | 31,677 | (10,633) | - | (9,302) | 10,905 |
| Field O&M – Service Maintenance | 16,997 | 11,390 | 16,997 | 11,390 | 17,167 | (5,607) | - | (5,607) | 170 |
| Field O&M – Field Support | 21,069 | 19,718 | 21,069 | 21,069 | 21,069 | (1,351) | - | - | - |
| Field O&M – Tools, Fittings and Materials | 10,307 | 9,275 | 10,307 | 10,307 | 10,317 | (1,032) | - | - | 10 |
| **Field O&M - Subtotal** | **129,116** | **101,130** | **128,616** | **114,207** | **142,275** | **(27,986)** | **(500)** | **(14,909)** | **13,159** |
| Asset Management | 6,965 | 6,965 | 6,965 | 6,965 | 6,965 | - | - | - | - |
| Operations and Management | 7,378 | 5,419 | 7,378 | 7,378 | 7,378 | (1,959) | - | - | - |
| Regional Public Affairs | 4,420 | 4,420 | 4,420 | 4,420 | 4,420 | - | - | - | - |
| **Total Non-Shared Services O&M** | **147,879** | **117,934** | **147,379** | **132,970** | **161,038** | **(29,945)** | **(500)** | **(14,909)** | **13,159** |

## 1. Disputed Cost – Locate and Mark

**Table GOM-06**
**Southern California Gas Company**
**Gas Distribution Locate and Mark O&M Test Year 2019 Estimates**
**(Thousands of Constant 2016 Dollars)**

| | Position of Party | | | Difference Between Party and SCG | |
|---|---|---|---|---|---|
| | SCG | ORA | CUE | (ORA-SCG) | (CUE-SCG) |
| **Field O&M- Locate & Mark** | | | | | |
| Base Forecast | 15,439 | 13,673 | 16,354 | (1,766) | 915 |
| USA Ticket Price Increase | 111 | 111 | 111 | - | - |
| Vacuum Technology for Potholing | 500 | 500 | 500 | - | - |
| Job Observation Time not at 100% | - | - | 560 | - | 560 |
| **Subtotal** | **16,050** | **14,284** | **17,525** | **(1,766)** | **1,475** |

Locate and mark is a process mandated by 49 C.F.R. § 192 and California's "One-Call" Statute, which requires the owner of underground facilities to identify substructures at locations of planned excavations.[61] The activities completed under this workgroup are preventative in nature and are required to avert damages caused by third-party excavators working near gas

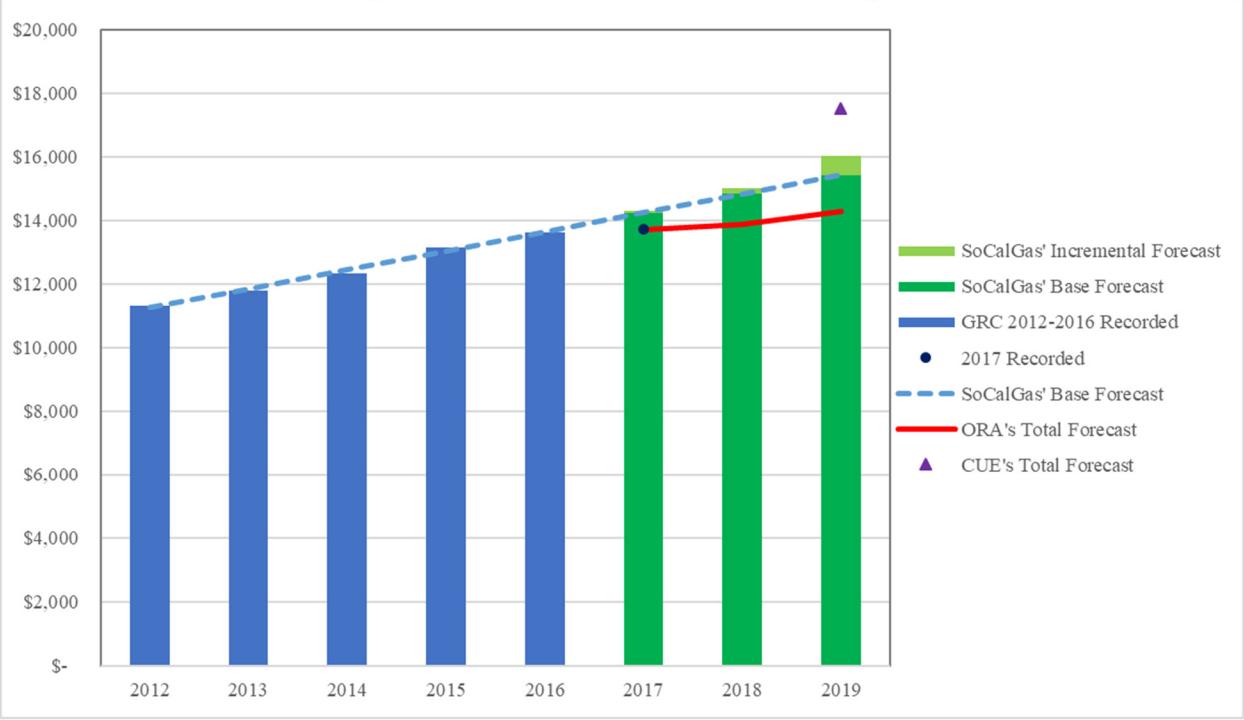
[61] *See* Cal. Gov't Code §§ 4216, *et seq*.

underground substructures.[62] The work primarily comprises locating and marking SoCalGas' underground pipelines, conducting job observations, and performing depth checks.[63]

Based on the linear trend observed during the five-year historical period (2012-2016) and the drivers associated with the locate and mark activity, SoCalGas chose the five-year (2012-2016) linear trend to determine its base forecast because it most accurately reflects current and future levels of activity. As discussed in Section III.B. above, the costs associated with mitigation actions in support of RAMP risks are embedded in the Locate and Mark base forecast.[64] Added to this base are incremental work elements not reflected in the base forecast to adequately fund locate and mark activities in TY 2019.

The figure below represents SoCalGas' total forecast for Locate and Mark, as well as ORA's and CUE's proposals for this area, which are discussed in the following sections.

**Figure GOM-01**
**Southern California Gas Company**
**Locate and Mark**
**(Thousands of Constant 2016 Dollars)**




[62] Ex. SCG-04-R (Orozco-Mejia) at 32.
[63] *Id.*
[64] *Id.* at 15, Table GOM-08.

### a. ORA

#### i. Base Forecast

ORA disputes SoCalGas' use of the trending methodology to determine its base forecast and asserts that the LRY methodology is more appropriate.[65] ORA recommends using the two-year average of 2016 and 2017 recorded expenses as the base amount for its TY 2019 forecast, instead of the five-year (2012-2016) linear trend used by SoCalGas.[66] However, ORA acknowledges that "[t]he recorded expenses show a steady upward trend from 2014 to 2016."[67] Historical spending from 2012-2017 has been trending in an upward direction as demonstrated in the figure above, which supports SoCalGas' decision to use a five-year (2012-2016) linear trend. ORA's base forecast recommendation for TY 2019 of $13.673 million is $1.766 million lower than SoCalGas' forecast of $15.439 million and does not provide sufficient funding to cover the anticipated growth in locate and mark tickets, job observations, and depth checks. These activities also support RAMP risk mitigation actions.

Moreover, as discussed in Section III above, ORA's reliance on a LRY methodology is not required and is unjustified because the historical data shows a clear upward trend, as shown in the figure above. Although ORA acknowledges this upward trend, its LRY method of averaging 2016 and 2017 recorded data does not recognize the need to fund the anticipated growth in work and associated expenses in TY 2019. As previously discussed, in SoCalGas' 2016 GRC, the same ORA analyst agreed with SoCalGas' use of a linear trend and actually proposed a five-year trend, "[w]hile ORA does not oppose using a linear trend to forecast test year expenses for Locate and Mark in this GRC, ORA believes that data from as many years as possible should be used for a more reliable forecast."[68]

SoCalGas expects the costs in this workgroup to increase as economic conditions continue to improve, causing increases in construction activity near pipelines. Additionally, as previously discussed, with the implementation of California's Dig Safe Act of 2016 (SB 661) and the establishment of a new Board with the power to enforce the law and issue fines, it is anticipated that this regulation will increase the number of locate and mark tickets submitted to

[65] Ex. ORA-11 (Phan) at 10.
[66] *Id.* at 11.
[67] *Id.*
[68] A.14-11-003/-004 (cons.), Ex. ORA-10 (Phan) at 8.

the regional notifications centers. This incremental work was accounted for and its costs are embedded in the five-year (2012-2016) linear trend used to determine the base forecast for the locate and mark activity. Thus, SoCalGas did not request separate funding for this incremental activity.

In addition, based on the requirements of General Order (GO) 112-F, SoCalGas expects an increase in locating and marking known abandoned lines, which will increase the time spent locating each ticket and creating additional work for supporting activities.[69]

Moreover, the number of hours of stand-by time (job observations) have increased over the years, as seen in the figure below. This work is driven by construction activities near high-pressure pipes.

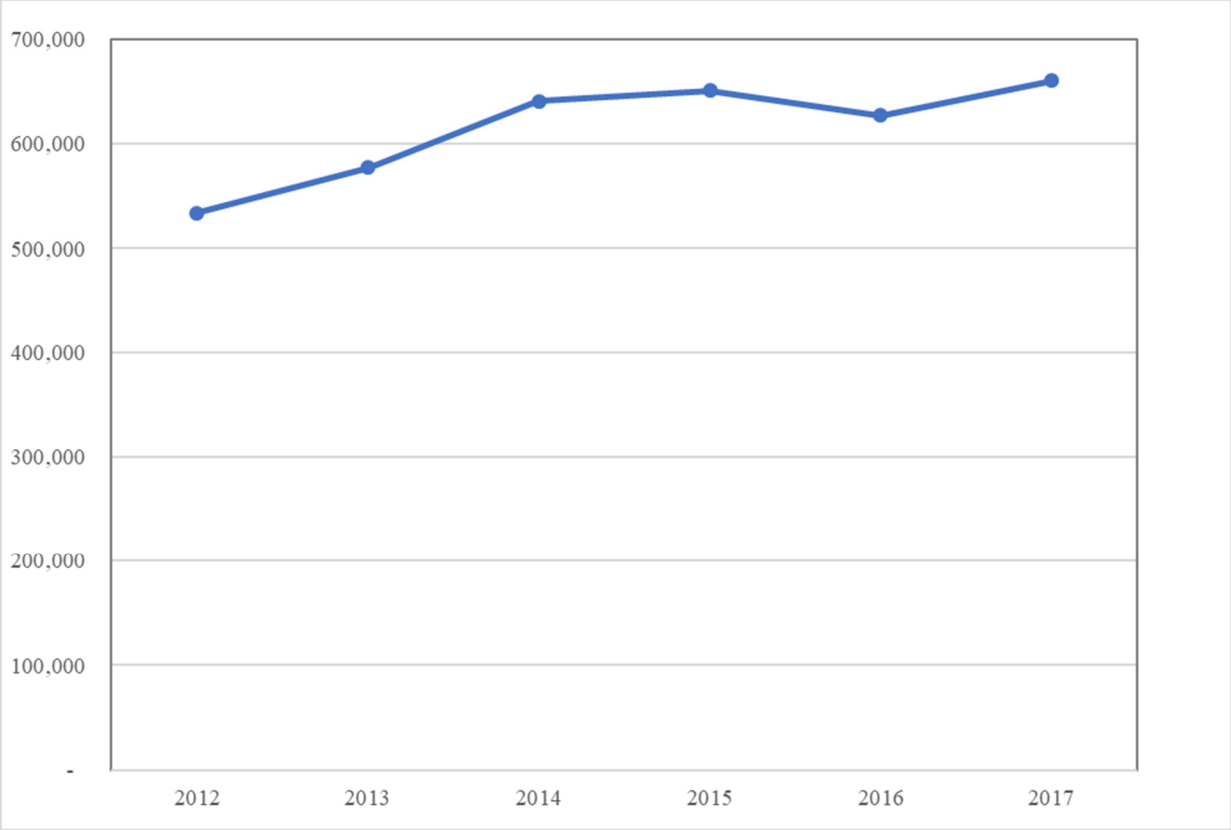
**Table GOM-07**
**Southern California Gas Company**
**Hours of Locate and Mark Stand-By Time (Job Observations)**

| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|
| **Hours of Stand By Time** | 16,438 | 20,588 | 23,365 | 26,859 | 27,030 | 30,119 |

Additionally, the data provided in the figure below and SoCalGas' response to CUE-SCG-DR-03, Question 183 show the number of Underground Service Alert (USA) tickets worked generally trending in an upward direction.[70]

[69] Ex. SCG-04-R (Orozco-Mejia) at 33.
[70] CUE-SCG-DR-03, Question 183, attached as Appendix B. (The decrease in 2016 in the number of USA tickets is a result of a change in data tracking methodology related to the consolidation of overlapping notification areas at the end of 2015. This change directly reduced the number of tickets received in those areas. However, the 2017 number reflects the anticipated upward pressure after this data tracking change.).

**Figure GOM-02**
**Southern California Gas Company**
**Locate and Mark Distribution Tickets**




These activities support the increasing growth that SoCalGas is experiencing with locate and mark work due to GO 112-F, SB 661, and construction activities.

As noted in Section III.B. above, ORA does not discuss SoCalGas' RAMP analysis for Gas Distribution and does not offer testimony regarding the funding of these specific activities from a risk reduction perspective. ORA ignores SoCalGas' base forecast methodology, which includes RAMP embedded base costs to prevent double counting of upward pressures.[71] ORA's recommendation to reduce SoCalGas' base forecast by $1.766 million fails to recognize that embedded in the Locate and Mark forecast are efforts to reduce the risk of dig-ins and enhance safety. Therefore, ORA effectively ignores the risk-informed GRC process and its recommendations.

[71] Ex. SCG-04-R (Orozco-Mejia) at 15, Table GOM-08.

For the above stated reasons, the Commission should reject ORA's proposed forecast as it is incomplete in its analysis and inadequately supported by the facts. Thus, the Commission should adopt the SoCalGas five-year linear trend (2012-2016) for its base forecast.

**ii. USA Ticket Price Increase**

ORA does not dispute SoCalGas' incremental request for USA Ticket Price Increase.[72]

**iii. Vacuum Technology for Potholing**

ORA does not dispute SoCalGas' incremental request for Vacuum Technology for Potholing.[73]

**b. CUE**

**i. Locate and Mark – Dig-in Risk Mitigation**

CUE does not dispute the two incremental increases SoCalGas requests under Locate and Mark to cover USA ticket fee increases and vacuum technology, at a cost of $0.611 million. However, CUE disputes SoCalGas' base forecast and proposes an incremental increase of $0.915 million to TY 2019 totaling $16.354 million, instead of SoCalGas' forecast of $15.439 million.[74] CUE's proposal is based on data and information SoCalGas provided during discovery. However, the manner in which CUE used the data in its forecast appears to overestimate the locate and mark costs.

CUE's main argument appears to be that SoCalGas' five-year trend to calculate its TY 2019 base forecast is not sufficient to cover the rate at which locate and mark tickets are growing, primarily driven by the implementation of SB 661.[75]

In fact, SoCalGas expects the requirements of the Dig Safe Act to add to the Locate and Mark forecast and as previously discussed, SoCalGas included this upward pressure within its five-year linear trend (2012-2016) base forecast. SoCalGas experienced a 5.2% increase in locate and mark tickets in 2017, likely driven in part by SB 661. However, it is difficult to forecast precisely how much this new law will impact the Locate and Mark work category. SoCalGas developed its forecast with the best available information at the time the TY 2019

[72] Ex. ORA-11 (Phan) at 11.
[73] *Id.*
[74] CUE (Marcus) at 32.
[75] *Id.* at 31:13.

GRC was generated. In this particular case, using the five-year linear trend is an appropriate and conservative approach to forecasting this new work driver.

For these reasons, the Commission should approve SoCalGas' forecast as it reflects the locate and mark work anticipated in TY 2019.

**ii. Locate and Mark – Job Observation Time not at 100%**

CUE proposes for SoCalGas to increase stand-by (job observation) time based on its belief that SoCalGas has reduced job observations.[76] CUE's estimate with regards to this activity is $0.560 million.[77] The job observation work is an underlying activity currently completed within the Locate and Mark workgroup, as stated in my revised direct testimony.[78] SoCalGas provided the number of hours of job observations in Table GOM–08 above, from 2012-2016 that shows hours increasing since 2012 and these costs are also embedded in the base forecast for Locate and Mark. For these reasons, the Commission should approve SoCalGas' forecast as it accurately reflects the locate and mark work in TY 2019.

**2. Disputed Cost – Leak Survey**

**Table GOM-08**
**Southern California Gas Company**
**Gas Distribution Leak Survey O&M Test Year 2019 Estimates**
**(Thousands of Constant 2016 Dollars)**

| | Position of Party | | | Difference Between Party and SCG | |
|---|---|---|---|---|---|
| | SCG | ORA | CUE | (ORA-SCG) | (CUE-SCG) |
| **Field O&M- Leak Survey** | | | | | |
| Base Forecast | 8,320 | 7,518 | 8,320 | (802) | - |
| Bi-Annual High Pressure | 1,035 | - | 1,035 | (1,035) | - |
| Aldyl-A Survey | 1,690 | 1,690 | 1,789 | - | 99 |
| Advanced Technology | - | - | 500 | - | 500 |
| Fueling Our Future (FOF) | (334) | (334) | (334) | - | - |
| **Subtotal** | **10,711** | **8,874** | **11,310** | **(1,837)** | **599** |

Leak survey costs support the safety and reliability of SoCalGas' system. The activities completed under this cost workgroup include the labor and non-labor expenses to survey its Gas

[76] *Id.* at 32:19-22.
[77] *Id.*
[78] Ex. SCG-04-R (Orozco-Mejia) at 32:23-28.

Distribution system for leakage, in compliance with federal and state pipeline safety regulations.[79] These surveys are performed at various time intervals, depending on the pipe material involved, the operating pressure, and the proximity of the facilities to various population densities.[80] SoCalGas' pipelines are leak surveyed at intervals of six months, one year, three years, or five years.[81] In addition to routine leak surveys, SoCalGas also performs special leak surveys as needed and on a more frequent cycle than required, as part of its maintenance and risk mitigation efforts.[82]

SoCalGas expects leak survey activities and costs to increase as a result of system growth and expansion, more frequent surveys, new pipe installation, changes in work practices, and increases in leak survey footage.[83] For these reasons and based on data from a five-year historical period (2012-2016), SoCalGas chose the five-year (2012-2016) linear trend to determine its base forecast because it most accurately reflects current and future levels of activity. As discussed in Section III.B. above, the costs associated with mitigation actions in support of RAMP risks are embedded in the Leak Survey base forecast.[84] Added to this base are incremental work elements not reflected in the base forecast to adequately fund leak survey activities in TY 2019 as well as cost savings for efficiencies identified as part of the FOF effort.

The figure below represents SoCalGas' total forecast for Leak Survey, as well as ORA's and CUE's proposals for this area, which are discussed in the following sections.

[79] *See* 49 C.F.R. § 192.723 (Distribution systems: Leakage surveys); *see also* GO 112-F.
[80] Ex. SCG-04-R (Orozco-Mejia) at 36.
[81] *Id.* at 36-37.
[82] *Id.* at 37.
[83] *Id.* at 38.
[84] *Id.* at 15, Table GOM-08.

**Figure GOM-03**
**Southern California Gas Company**
**Leak Survey**
**(Thousands of Constant 2016 Dollars)**


**a. ORA**

**i. Base Forecast**

ORA disputes SoCalGas' use of the trending methodology to determine its base forecast and asserts that the LRY methodology is more appropriate.[85] ORA focuses on SoCalGas' expenses for the years 2014-2016 to suggest a downward trend.[86] ORA recommends using the two-year average of 2016 and 2017 recorded expenses as the base amount for its TY 2019 forecast, instead of the five-year (2012-2016) linear trend used by SoCalGas.[87] ORA's base recommendation for TY 2019 of $7.518 million is $0.802 million lower than SoCalGas' forecast of $8.320 million. ORA's calculation using a two-year average of the 2016 and 2017 recorded dollars is even lower than SoCalGas' recorded expenditures ($7.956 million) in 2017 and thus, does not provide sufficient funding in TY 2019 to cover the anticipated increase in Leak Survey.

[85] Ex. ORA-11 (Phan) at 13.
[86] *Id.*
[87] *Id.*

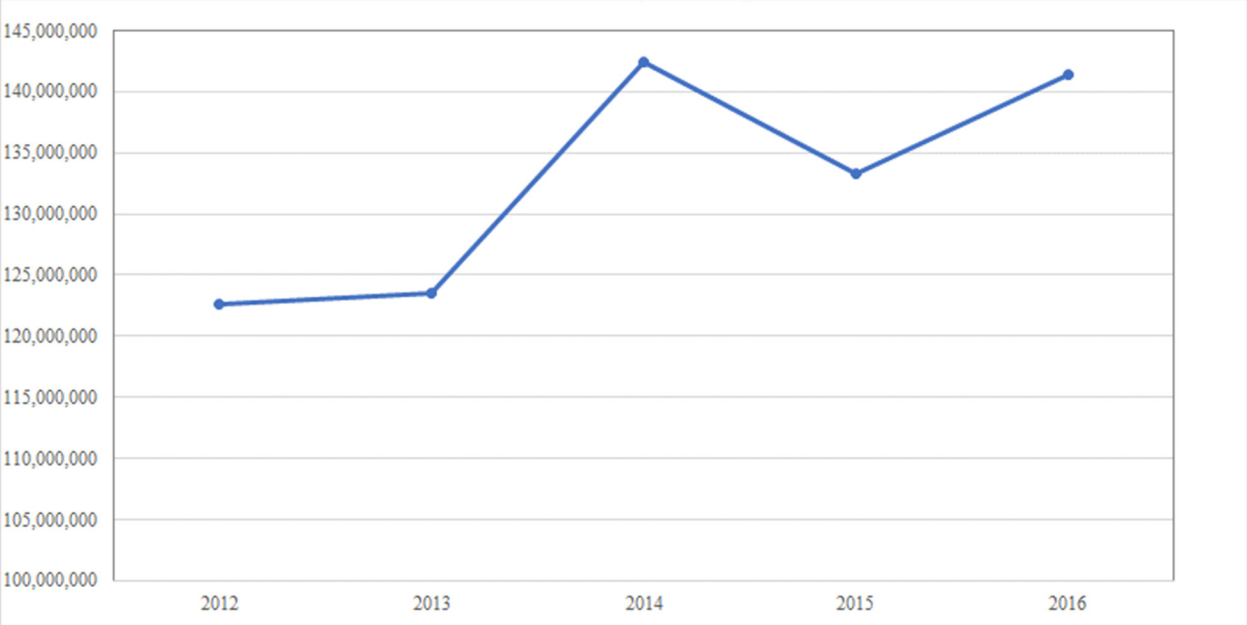
As discussed in Section III above, ORA's reliance on a LRY methodology is not required and results in an incomplete view of TY 2019 requirements because it does not adequately recognize the historical 2017 data showing an upward trend, nor does it recognize the need to fund the anticipated base growth in work, RAMP risk mitigation activities, and associated expenses.

ORA's recommended base forecast suggests growth will stagnate below 2017 recorded levels, which is not supported by the historical information or the drivers of this activity. As previously stated, trends indicate a general movement along a directional line that does not specifically require an exact rigid placement for each and every data point. It is normal for some data points to fall above or below the trend line. ORA's focus on the years 2014-2016 does not account for the 2017 recorded cost information provided to ORA, showing an increasing upward trend.

As seen in the figure below, the amount of leak survey footage for the historical period 2012-2016 has increased, resulting in a general upward trend of associated expenses.[88]

[88] *See also* Ex. SCG-04-R (Orozco-Mejia) at 38, Table GOM-14.

**Figure GOM-04[89]**
**Southern California Gas Company**
**Leak Survey Footage**




SoCalGas' distribution main and service mileage has increased by 1,269 miles between 2012 and 2016, requiring more leak survey activities.[90] Furthermore, as provided in my revised direct testimony and in the data request response to ORA-SCG-054-DAO, Question 3, new meter set installations are continuing to grow, as a result of continued economic strength.[91] The increase in the number of new business meter sets reflect the need to add new mains and services to the pipe system, which in turn require an increase in the miles of leak survey needed to maintain system safety and compliance. ORA did not take issue with SoCalGas' new meter set installations of 39,807 in 2017; 47,987 for 2018; and 51,388 for 2019.

As discussed in Section III.B. above, ORA does not discuss SoCalGas' RAMP analysis for Gas Distribution and does not offer testimony regarding the funding of these specific activities from a risk reduction perspective. ORA ignores SoCalGas' base forecast methodology, which includes RAMP embedded base costs to prevent double counting of upward pressures.[92]

[89] The leak survey footage in Figure GOM-04 reflect data as of June 6, 2018. The increase in footage observed in 2014 is due to a change in the methodology SoCalGas uses to identify and leak survey business districts.
[90] ORA-SCG-054-DAO, Question 3, attached as Appendix B.
[91] *Id.*; Ex. SCG-04-R (Orozco-Mejia) at 94, Table GOM-36; *see also* Ex. SCG-39-WP (Payan).
[92] Ex. SCG-04-R (Orozco-Mejia) at 15, Table GOM-08.

ORA's recommendation to reduce SoCalGas' base forecast by $0.802 million, fails to recognize that the Leak Survey forecast helps to reduce the risk of asset failure and enhances public safety; thus, ORA effectively ignores the risk-informed GRC process and its recommendations.

The Commission should reject ORA's proposed forecast because it is incomplete in its analysis and does not provide for the necessary funding to perform this safety and compliance activity, and should adopt the SoCalGas five-year linear trend (2012-2016) for its base forecast.

**ii. Bi-Annual High-Pressure Leak Survey**

SoCalGas requests incremental funding in TY 2019 in the amount of $1.035 million to leak survey all high-pressure lines, twice a year in compliance with GO 112-F and to implement a risk mitigation action in support of RAMP risk SCG-4 Catastrophic Damage Involving High-Pressure Pipeline Failure.[93] GO 112-F, which went into effect on January, 1 2017, requires all DOT-defined high-pressure transmission pipes to be surveyed twice a year.[94] SoCalGas' mitigation will go beyond the GO 112-F requirement and apply the bi-annual leak survey requirement to all its high-pressure lines by TY 2019.[95]

ORA disputes any incremental funding to cover the increased leak survey activity for high-pressure lines, even for surveys required by GO 112-F. Although ORA acknowledges and references the GO 112-F requirement in its testimony, ORA claims that SoCalGas' request is unsubstantiated and inadequately supported by detailed historical data.[96] SoCalGas was unable to provide the detailed historical cost information requested by ORA because SoCalGas does not break down the survey between medium pressure or high pressure for a specific survey cycle.[97] For high-pressure survey, the work was recorded in the same category as all other survey peformed on an annual cycle, including those surveys required for business districts. Therefore, when ORA asked to separate historical high-pressure lines, SoCalGas was unable to provide the data because it is not tracked in that manner.[98]

However, SoCalGas provided information in testimony, workpapers, and data requests stating that the pipe impacted by the six-month survey cycle in 2017 and 2018 is 690 miles

[93] *Id.* at 39.
[94] *See* GO 112-F § 143.1(b).
[95] Ex. SCG-04-R (Orozco-Mejia) at 39.
[96] Ex. ORA-11 (Phan) at 16; *see also* ORA-SCG-045-DAO, Question 1, attached as Appendix B.
[97] ORA-SCG-045-DAO, Question 1.a, attached as Appendix B.
[98] *Id.*

(3,643,200 feet).[99] The 690 miles of pipe is defined as transmission pipe by the Code of Federal Regulations and is maintained by Gas Distribution.[100] SoCalGas is required to survey this DOT-defined pipe every six months, instead of annually, pursuant to GO 112-F requirements.[101] Therefore, the leak survey associated with this pipe will double starting in 2017 and will continue every year. The specific cost for this activity was calculated by taking the average amount of pipe a technican surveys in a day and the labor cost for the technician, as provided in the Leak Survey Workpaper.[102] ORA's recommendation would disallow the incremental funding for this mandated compliance activity.

The second portion of this incremental increase is driven by a mitigation action supporting RAMP risk SCG-4 Catastrophic Damage Involving High-Pressure Pipeline Failure.[103] Bi-annual leak survey will further enhance high-pressure pipeline safety by surveying all high-pressure distribution pipe every six months, instead of annually, beginning in TY 2019. SoCalGas will go beyond the GO 112-F requirement of surveying all the DOT-defined transmission lines and leak survey all high-pressure distribution pipe (a.k.a. "supply lines"). [104] Leakage in high-pressure pipe has a higher consequence due to the amount of gas that can escape in a short period, which can present a higher risk for the potential of ignition, gas migration into structures, and pipeline failure. Therefore, more frequent leak survey provides the opportunity of finding and addresing leaks sooner, and mitigating a public safety risk. As shown in my revised direct testimony and Leak Survey Workpaper, SoCalGas forecasts changing the leak survey cycle for approximately 3,700 miles of high-pressure pipe from annual to bi-annual (every six-months).[105]

The incremental cost of $1.035 million for TY 2019 incorporates both phases of the bi-annual survey discussed above: 1) moving 690 miles of DOT-defined transmission pipe to bi-annual leak survey in compliance with GO 112-F and 2) moving all high-pressure pipe

[99] *Id.* at Question 2.a, attached as Appendix B; Ex. SCG-04-R (Orozco-Mejia) at 39.
[100] *See* 49 C.F.R. §§ 192.3, 192.706.
[101] *See* GO 112-F § 143.1(b).
[102] Ex. SCG-04-WP (Orozco-Mejia), at 31, Supplemental Workpaper SCG-04-GOM-O&M-SUP-004.
[103] Ex. SCG-04-R (Orozco-Mejia) at 39; 14, Table GOM-07.
[104] *Id.* at 39.
[105] *Id.*; SCG-04-GOM-O&M-SUP-004; *see also* ORA-SCG-045-DAO, Question 1 (SoCalGas provided a correction that the miles of high pressure mains maintained by Gas Operations Distribution is approximately 3,994 miles. This includes approximately 714 miles of DOT-defined transmission pipe and 3,280 miles of high-pressure distribution lines).

maintained by Gas Distribution to bi-annual leak survey as a risk mitigation action in support of RAMP risk SCG-4 Catastrophic Damage Involving High-Pressure Pipeline Failure.

By opposing this incremental increase, ORA opposes funding a compliance required activity, as well as a risk mitigation action to further enhance safety. Therefore, the Commission should reject ORA's recommendation as it does not provide for the necessary funding to perform this safety and compliance activity and should adopt the SoCalGas forecast of $1.035 million for TY 2019.

#### iii. Survey – Early Vintage Plastic Pipe

ORA does not dispute SoCalGas' forecast for Enhanced Leak Survey - Early Vintage Plastic Pipe.[106]

#### iv. Fueling Our Future

ORA does not dispute SoCalGas' cost savings forecast for the FOF effort.[107]

### b. CUE

#### i. Three-Year Inspection Cycle

CUE proposes that the Commission order SoCalGas to move to a three-year leak survey cycle for all pipe not already subject to more frequent inspections and record the incremental costs to the NERBA.[108]

As discussed above, SoCalGas' leak survey activities are in compliance with federal and state requirements, and SoCalGas will exceed those requirements with its proposals to leak survey all of its high-pressure pipe on a bi-annual cycle and early vintage plastic pipe on an annual cycle. In addition, surveys that are not already proposed to move to a three-year cycle (e.g., state-of-the-art plastic and protected steel) are already being addressed in a separate SB 1371 proceeding under Best Practice 15, Gas Distribution Leak Surveys.[109] The revised direct testimony of Darrell Johnson explains that SoCalGas did not include the NERBA-related cost

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[106] Ex. ORA-11 (Phan) at 16.
[107] *Id.*
[108] CUE (Marcus) at 25-26.
[109] D.17-06-015, Appendix B at B10-B11; *see also* SoCalGas Advice Letter (AL) 5211-A, Attachment B at 21, *available at* https://www.socalgas.com/regulatory/tariffs/tm2/pdf/5211-A.pdf; 2018 Leak Abatement Compliance Plan at 77-93 (submitted Mar. 15, 2018), *available at* http://www.cpuc.ca.gov/uploadedFiles/CPUC_Website/Content/Safety/Risk_Assessment/Methane_Leaks/SoCalGas%202018%20SB%201371%20Compliance%20Plan.pdf.

forecasts associated with the Natural Gas Leak Abatement Program (NGLAP) Subaccount in alignment with D.17-06-015.[110] Thus, CUE's proposal is outside the scope of this GRC, as further evidenced by CUE's informal comments filed on June 1, 2018 in SB 1371 Rulemaking (R.) 15-01-008 proposing this same request: "SoCalGas should be required to transition its entire distribution system from a five to three year leak survey cycle in addition to surveying NSOTA plastic and unprotected steel annually."[111]

For these reasons, the Commission should adopt SoCalGas' forecast for leak survey activities and reject CUE's proposal as outside the scope of this GRC.

**ii. Survey – Early Vintage Plastic Pipe**

CUE recommends an increase of $99,000 over SoCalGas' proposed $1.690 million for the incremental leak survey associated with the early vintage plastic pipe (Aldyl-A) based on SoCalGas using a lower number of miles than the current actual data.[112] SoCalGas acknowledges the use of the lower number of miles, which produced a lower forecast for TY 2019. SoCalGas does not dispute CUE's assumptions as stated in its testimony.

**iii. Advanced Leak Detection Technology**

CUE proposes that SoCalGas should be ordered to do a field comparison in 2019 of Picarro-type leak detection technology.[113] CUE's estimate for this activity is $0.500 million.[114]

The Commission should reject this proposal because this activity is outside of the scope of this GRC and is already being addressed in the SB 1371 proceeding under Best Practice 17, Enhanced Methane Detection: "Utilities shall utilize enhanced methane detection practices (e.g. mobile methane detection and/or aerial leak detection) including gas speciation technologies."[115]

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[110] December 20, 2017, Revised Direct Testimony on Environmental Services, Exhibit SCG-25-R (Darrell Johnson) at DJ-14.
[111] *See* R.15-01-008, Informal Comments of CUE on the 2018 Leak Abatement Compliance Plans (dated June 1, 2018) at 2-3.
[112] CUE (Marcus) at 27. Note: The information CUE used was provided in a DR which used an updated mileage count of Pre-1986 Aldyl-A pipe.
[113] *Id.*
[114] *Id.*
[115] *See* D.17-06-015, Appendix B at B12; *see also* AL 5211-A, Attachment B at 26-27, *available at* https://www.socalgas.com/regulatory/tariffs/tm2/pdf/5211-A.pdf; 2018 Leak Abatement Compliance Plan at 112 (submitted Mar. 15, 2018), *available at* http://www.cpuc.ca.gov/uploadedFiles/CPUC_Website/Content/Safety/Risk_Assessment/Methane_Leaks/SoCalGas%202018%20SB%201371%20Compliance%20Plan.pdf.

CUE's informal comments filed on June 1, 2018 in R.15-01-008 proposing a similar request provides further evidence that this issue belongs in the scope of SB 1371: "The Commission should impose the Picarro/super-crew framework on SoCalGas. . . ."[116]

### 3. Disputed Cost – Measurement and Regulation

**Table GOM-9**
**Southern California Gas Company**
**Gas Distribution Measurement and Regulation O&M Test Year 2019 Estimates**
**(Thousands of Constant 2016 Dollars)**

| | Position of Party | | Difference Between Party and SCG |
|---|---|---|---|
| | **SCG** | **ORA** | **(ORA-SCG)** |
| **Field O&M- Measurement and Regulation** | | | |
| Base Forecast | 15,305 | 13,567 | (1,738) |
| AMI Remediation | 264 | 264 | - |
| MTU Battery Replacement | 120 | 120 | - |
| AMI Benefits | (741) | (741) | - |
| Fueling Our Future (FOF) | (60) | (60) | - |
| **Subtotal** | **14,888** | **13,150** | **(1,738)** |

Measurement and Regulation (M&R) activities focus primarily on maintaining and operating regulator stations, medium and large customer Meter Set Assemblies (MSAs), electronic pressure correctors, valves, and electronic pressure monitors (EPMs).[117] Regulator stations are critical control elements in the gas distribution system because they reduce the pressure of gas entering the distribution system from high-pressure pipelines to provide the lower pressures used on the distribution pipeline network.[118] Medium and large customer MSAs require routine maintenance of meters, regulators, and other components to meet customers'

[116] *See* R.15-01-008, Informal Comments of CUE on the 2018 Leak Abatement Compliance Plans (dated June 1, 2018) at 5.
[117] Ex. SCG-04-R (Orozco Mejia) at 41-42.
[118] *Id.* at 42.

capacity requirements to accurately measure gas volume.[119] Electronic Pressure Correctors are also necessary for accurate gas measurement and billing.[120]

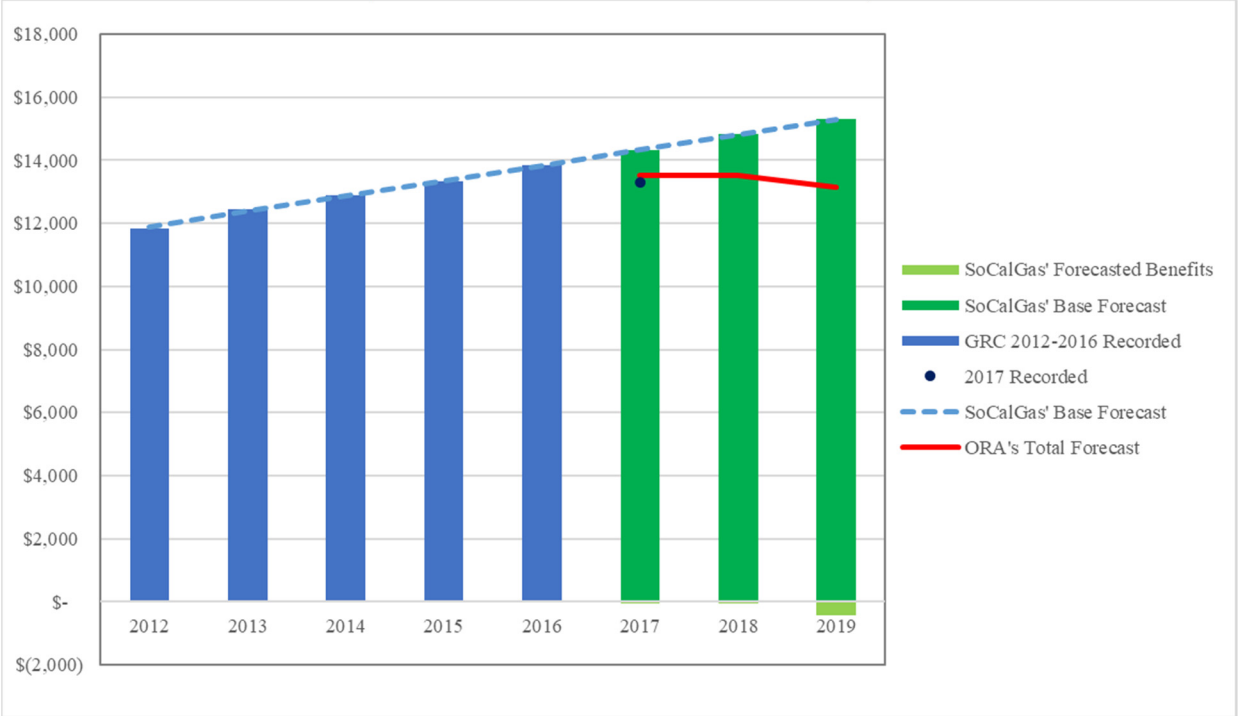
Valves maintained within this workgroup have several important functions including: fire valves at regulator stations to isolate the high- and medium- pressure systems; emergency valves to isolate segments of pipelines in case of pipe damage or for operational purposes; and isolation valves to segment portions of the system in the event of a widespread emergency, such as an earthquake.[121] Electronic pressure monitors act as an alarm system and provide a warning if the system pressure is too high or too low, according to pre-established criteria. Failure of any of these components could result in reduced service to customers and/or jeopardize public safety; therefore, proactive maintenance of these facilities is a priority.

SoCalGas expects the costs in this workgroup to increase due to aging of these infrastructure components, requiring more maintenance and inspections; ongoing cost pressures associated with an increased demand to respond to pressure alarms throughout the system; an increase in training, mentoring and coaching of M&R employees; and an increase in safety-related meetings. Based on these drivers and data during the five-year historical period (2012-2016), SoCalGas chose the five-year (2012-2016) linear trend to determine its base forecast because it most accurately reflects current and future levels of activity. As discussed in Section III.B. above, the costs associated with mitigation actions in support of RAMP risks are embedded in the measurement and regulation base forecast. [122] Added to this base are incremental work elements not reflected in the base forecast to adequately fund M&R activities in TY 2019 as well as cost savings for efficiencies identified as part of the FOF effort and Advanced Meter Infrastructure.

The figure below represents SoCalGas' total forecast for M&R, as well as ORA's proposal for this area, which is discussed in the following section.

[119] *Id.* at 41.
[120] *Id.* at 41-44.
[121] *Id.* at 42.
[122] *Id.* at 15, Table GOM-08.

**Figure GOM-05**
**Southern California Gas Company**
**Measurement and Regulation**
**(Thousands of Constant 2016 Dollars)**




### a. ORA

#### i. Base Forecast

ORA disputes SoCalGas' use of the trending methodology to determine its base forecast and asserts that the LRY methodology is more appropriate.[123] ORA's recommends using the two-year average of 2016 and 2017 recorded expenses as the base amount for its TY 2019 forecast, instead of the five-year (2012-2016) linear trend used by SoCalGas.[124] However, ORA acknowledges that "the recorded expenses show a steady upward trend from 2012 to 2016."[125] Historical spending from 2012-2016 has been trending in an upward direction, as demonstrated in the figure above, supporting SoCalGas choice of a five-year (2012-2016) linear trend. ORA's base forecast recommendation for TY 2019 of $13.567 million is $1.738 million lower than SoCalGas' forecast of $15.305 million. ORA's calculation of the base forecast using a two-year average of the 2016 and 2017 recorded dollars does not provide sufficient funding in TY 2019 to

[123] Ex. ORA-11 (Phan) at 18.
[124] *Id.*
[125] *Id.*

cover the required safety and compliance activities for SoCalGas' approximately 1,975 regulator stations, approximately 102,000 medium and large customer MSAs, as well as other system components covered by this work category.

As discussed in Section III above, ORA's reliance on the LRY methodology results in an incomplete view of TY 2019 requirements because it does not recognize the need to fund the anticipated base growth in work, RAMP risk mitigation activities, and associated expenses. Furthermore, ORA's recommended base forecast suggests work in this category will stagnate below 2016 recorded levels, which is not supported by the drivers that impact this activity. ORA's recommended forecast for TY 2019 is even lower than SoCalGas' recorded expenditures ($13.831 million) in 2016.

Although ORA acknowledges the upward trend, its forecast methodology does not accurately depict an appropriate TY 2019 base forecast. When looking at a trend, it is normal for some points to fall above or below the line. However, the overall upward trend for M&R is expected to continue into this GRC period for reasons discussed below.

The M&R infrastructure continues to age, requiring additional maintenance. The table below was provided to ORA in response to data request ORA-SCG-062-DAO, Question 1, showing the age distribution of regulator stations.[126] As shown, SoCalGas has 784 regulator stations that have been in service for over 36 years; however, SoCalGas performs prudent maintenance activities so that its infrastructure components perform as long as safely possible. This operations and maintenance work also collects information for the infrastructure replacement programs covered by the capital work categories.

**Table GOM-10**
**Southern California Gas Company**
**Regulator Stations – Age Distribution**

| AGE | COUNT |
|---|---|
| 0 – 10 Years | 288 |
| 11 – 20 Years | 302 |
| 21 – 30 years | 454 |
| 31 – 35 Years | 147 |
| 36 Years and Older | 784 |
| **Grand Total** | **1,975** |

[126] ORA-SCG-062-DAO, Question 1, attached as Appendix B.

Another example of aging infrastructure is in the data provided in data request ORA-SCG-062-DAO, Question 7, part a, showing a continuous increase in the historical number of regulator and gauge inspections from 2012-2016.[127] Although ORA acknowledges that "the utility's operating and maintenance practices allow stations to exceed the average useful life," it unjustifiably decreases the base forecast for this work activity, despite the need and importance to safely operate and maintain the M&R infrastructure.[128] In addition, vault facilities used to house regulator stations also age, increasingly requiring more repairs or the rebuilding of worn, warped, or cracked vaults and lids caused by general deterioration or long-term exposure to heavy traffic.

Another area that drives work in this category is SoCalGas' increased reliance on its system of electronic pressure monitors, located throughout the service territory monitoring system pressure. There are currently approximately 2,000 EPMs in the service territory. If the pressure at any of these points falls below or exceeds predetermined set points, an alarm is sent to the dispatch center and resources are allocated to determine the cause. Many of these alarms require M&R resources to promptly respond to the field to determine the cause. Alarms are monitored 24/7 and therefore, M&R resources are called out to respond, many times, off-hours, including weekends.

Furthermore, SoCalGas has experienced a significant turnover of experienced workforce in the M&R group, requiring the need for additional supervision for on-the-job training, coaching, and mentoring. This newer supervising workforce also requires additional safety training to support employee and public safety and system integrity.[129]

Additionally, in 2017, Pipeline and Hazardous Materials Safety Administration (PHMSA) added section §192.740 to the Code of Federal Regulations, requiring inspection of pressure regulating devices ("farm taps") that are connected to pipelines, defined as transmission lines under DOT regulations, including those maintained by Gas Distribution. Specifically, it stated that these inspections are to occur every three calendar years and not to exceed 39 months

[127] *Id.* at Question 7.a.
[128] Ex. ORA-11 (Phan) at 64-65.
[129] Ex. SCG-04-R (Orozco-Mejia) at 4-5, 81.

to verify the pressure regulating device meets safety requirements. Due to the frequency of this compliance activity, M&R's inspection and maintenance activities will increase.

As noted in Section III.B. above, ORA does not discuss SoCalGas' RAMP analysis for Gas Distribution and does not offer testimony regarding the funding of these specific activities from a risk reduction perspective. ORA ignores SoCalGas' base forecast methodology, which includes RAMP embedded base costs to prevent double counting of upward pressures.[130] These activities help protect the system from over-pressure, which if ignored, can present a significant safety risk to the public and pipeline system.

SoCalGas assumed that the linear trend would cover the costs associated with the incremental activities discussed above and therefore, did not include an incremental increase cost for this work. Given the expected growth of work consistent with the trend line, ORA's base forecast recommendation of $13.567 million is inadequate to cover SoCalGas' funding needs of $15.305 million for TY 2019.[131] Furthermore, ORA's recommendation to reduce SoCalGas forecast fails to recognize that the M&R activity helps to reduce the risk of asset failure and enhances public safety. Thus, ORA effectively ignores the risk-informed GRC process.

The Commission should reject ORA's proposed forecast because it is incomplete in its analysis and does not provide for the necessary funding to perform this safety and compliance activity and should adopt the SoCalGas five-year linear trend (2012-2016) for its base forecast.

**ii. Advanced Meter Infrastructure (AMI) Remediation**

ORA does not dispute SoCalGas' incremental forecast for Advanced Meter Infrastructure (AMI) Remediation.[132]

**iii. Meter Transmission Unit (MTU) Battery Replacements**

ORA does not dispute SoCalGas' incremental forecast for Meter Transmission Unit (MTU) Battery Replacements.[133]

**iv. Fueling Our Future**

ORA does not dispute SoCalGas' cost savings forecast for the FOF effort.[134]

[130] *Id.* at 15, Table GOM-08.
[131] Ex. ORA-11 (Phan) at 17.
[132] *Id.* at 18.
[133] *Id.*
[134] *Id.* at 19.

### v. Advance Metering Infrastructure (AMI) Benefits

ORA does not dispute SoCalGas' cost savings forecast for AMI benefits

## 4. Disputed Cost – Cathodic Protection

**Table GOM-11**
**Southern California Gas Company**
**Gas Distribution Cathodic Protection O&M Test Year 2019 Estimates**
**(Thousands of Constant 2016 Dollars)**

| | Position of Party | | | Difference Between Party and SCG | |
|---|---|---|---|---|---|
| | SCG | ORA | CFC | (ORA-SCG) | (CFC- SCG) |
| **Field O&M- Cathodic Protection** | | | | | |
| Base Forecast | 17,719 | 13,697 | 17,219 | (4,022) | (500) |
| Incremental CP System Enhancement | 650 | 650 | 650 | - | - |
| Fueling Our Future (FOF) | (47) | (47) | (47) | - | - |
| **Subtotal** | **18,322** | **14,300** | **17,822** | **(4,022)** | **(500)** |

Without proper intervention, buried steel pipelines will corrode by reverting to their natural state as an iron oxide.[135] Corrosion on pipelines increases the potential for leaks, and can reduce the useful life of the pipelines.[136] Cathodic protection (CP) mitigates external corrosion on steel pipelines and is federally mandated by 49 C.F.R. § 192.465.[137] CP activities, including the evaluation and inspection of SoCalGas' steel distribution pipelines, are performed to maintain the longevity and performance of SoCalGas' distribution steel pipeline system and are completed by trained system protection specialists to comply with federal regulations.[138]

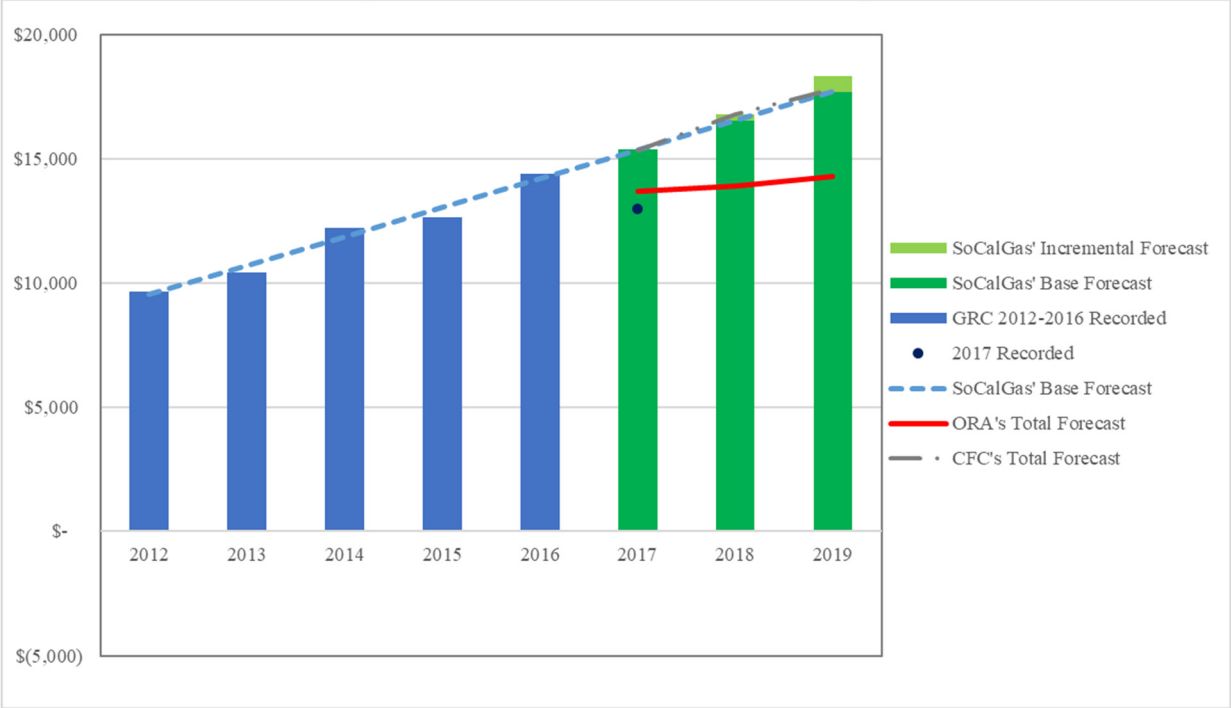
SoCalGas expects the costs in this workgroup to increase due to the aging of steel pipelines and CP infrastructure, municipality requirements, and material degradation. Moreover, with the aging of the gas pipeline system, the number of troubleshooting hours associated with cathodic protection are expected to increase. Based on these drivers and the data observed during the five-year historical period (2012-2016), SoCalGas chose the five-year (2012-2016)

[135] Ex. SCG-04-R (Orozco-Mejia) at 45.
[136] *Id.*
[137] *Id.* at 45-46.
[138] *Id.* at 46.

linear trend to determine its base forecast because it most accurately reflects current and future levels of activity. As discussed in Section III.B. above, the costs associated with mitigation actions in support of RAMP risks are embedded in the Cathodic Protection base forecast.[139] Added to this base are incremental work elements not reflected in the base forecast to adequately fund cathodic protection activities in TY 2019 as well as cost savings for efficiencies identified as part of the FOF effort.

The figure below represents SoCalGas' total forecast for Cathodic Protection, as well as ORA's proposal for this area, which is discussed in the following section.

**Figure GOM-06**
**Southern California Gas Company**
**Cathodic Protection**
**(Thousands of Constant 2016 Dollars)**




### a. ORA

#### i. Base Forecast

ORA disputes SoCalGas' use of the trending methodology to determine its base forecast and asserts that the LRY methodology is more appropriate.[140] ORA recommends using the two-

[139] *Id.* at 15, Table GOM-08.
[140] Ex. ORA-11 (Phan) at 20.

year average of 2016 and 2017 recorded expenses as the base amount for its TY 2019 forecast, instead of the five-year (2012-2016) linear trend used by SoCalGas.[141] However, ORA's Table 11-10 acknowledges that the recorded expenses show a steady upward trend.[142] Historical spending from 2012-2016 has been trending in an upward direction, as demonstrated in the figure above, which supports SoCalGas choice of a five-year (2012-2016) linear trend. ORA's base forecast recommendation for TY 2019 of $13.697 million is $4.022 million lower than SoCalGas' base forecast of $17.719 million.[143] ORA's LRY forecast using a two-year average of 2016 and 2017 recorded dollars does not provide sufficient funding for TY 2019 to cover the anticipated growth in Cathodic Protection.

As discussed in Section III above, ORA's reliance on the LRY methodology results in an incomplete view of TY 2019 requirements as it does not recognize the need to fund the anticipated base growth in work, RAMP risk mitigation activities, and associated expenses. Furthermore, ORA's recommended base forecast suggests work in this category will stagnate below 2016 recorded levels, which is not supported by the historical trend information or the drivers that impact this activity.

Although, ORA acknowledges the upward trend, it does not recognize the need to fund the anticipated growth in work and associated expenses in the TY 2019. Cathodic protection is mandated as part of the regulatory requirements of 49 C.F.R. § 192 Subpart I to safeguard the integrity of the pipeline system. This federally mandated safety activity consists primarily of compliance inspection, associated evaluations (troubleshooting), and planned and unplanned maintenance that must be completed for each CP area and isolated CP segment.[144] Furthermore, cathodic protection activities are also required as municipalities, other utilities, and construction firms complete their projects such as street reconstruction, widening, resurfacing, or sewer and water line maintenance and replacement.[145] Cathodic protection inspection, evaluation, and remediation is necessary after the completion of these projects to verify that the existing CP infrastructure does not get damaged or to address any damage.

[141] *Id.* at 20-21.
[142] *Id.* at 19.
[143] *Id.* at 21.
[144] *See* 49 C.F.R. § 192, subpart I.
[145] Ex. SCG-04-R (Orozco-Mejia) at 49.

As infrastructure ages, the number of hours required to complete the troubleshooting activity also increases. The data provided in the table below shows the number of hours of troubleshooting per year. Moreover, this activity is mandated under 49 C.F.R. § 192 and GO 112-F. Cathodic protection is a required maintenance activity that cannot be overlooked, as corroded pipe directly increases the risk of leaks and can reduce the useful life and performance of the pipeline.

**Table GOM-12**
**Southern California Gas Company**
**Hours of Cathodic Protection Troubleshooting**

| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|
| **Hours of Trouble Shooting** | 84,750 | 83,109 | 87,830 | 94,169 | 102,692 | 97,643 |

As noted in Section III.B. above, ORA does not discuss SoCalGas' RAMP analysis for Gas Distribution and does not offer testimony regarding the funding of these specific activities from a risk reduction perspective. ORA ignores SoCalGas' base forecast methodology, which includes RAMP embedded base costs to prevent double counting of upward pressures.[146] This maintenance activity supports the safety and reliability of SoCalGas' system, and helps prevent corrosion and extend the life of the distribution steel pipelines.

SoCalGas assumed that the linear trend would cover the costs associated with the incremental activities discussed above and therefore, did not include additional incremental costs for these work growth activities and risks mitigating actions. Given the expected growth of work consistent with the trend line, ORA's base forecast recommendation of $13.697 million is inadequate to cover SoCalGas' base funding needs of $17.719 million for TY 2019. The TY 2019 amount recommended by ORA is even lower than SoCalGas' 2016 recorded expenditures of $14.403 million. Furthermore, ORA's recommendation to reduce SoCalGas forecast, fails to recognize that the Cathodic Protection forecast helps to reduce the risk of asset failure and enhances public safety. Thus, ORA effectively ignores the risk-informed GRC process and its recommendations.

The Commission should reject ORA's proposed forecast because it is incomplete and does not provide for the necessary funding to perform this safety and compliance activity and

[146] *Id.* at 15, Table GOM-08.

should adopt the SoCalGas five-year linear trend (2012-2016) for its base forecast of $17.719 million for TY 2019.

**ii. Incremental Cathodic Protection System Enhancement**

ORA does not dispute SoCalGas' forecast for Incremental Cathodic Protection System Enhancement.[147]

**iii. Fueling Our Future**

ORA does not dispute SoCalGas' cost savings forecast for the FOF effort.[148]

**b. CFC**

CFC disputes SoCalGas' Cathodic Protection base forecast for TY 2019 by recommending a reduction of $0.500 million.[149] CFC utilizes the Department of Transportation's Annual Report for Gas Distribution System (i.e., PHMSA 7100.1 report) to calculate cathodic protection spend per mile of main and the total hazardous and non-hazardous leaks per mile of main throughout the historical years (2012-2016).[150] While creating these calculations, CFC acquired overall data for the Gas Distribution system and not specific data pertaining to cathodic protection. Based on its calculations, CFC assesses that the cathodic protection spend per mile has continually increased, while the leaks per mile of main has been "meaningfully improved," where CFC's calculation show a slowing rate of total leaks per mile of main.[151]

SoCalGas recreated CFC's calculation and discovered that incorrect data was used to calculate the ratios used to recommend a reduction in Cathodic Protection's base forecast. CFC uses total leaks for both plastic and steel, mains and services, that does not accurately depict cathodic protection from the PHMSA 7100.1 report (e.g., CP is applicable only to wrapped steel pipe). The calculations that CFC provides are inaccurate and do not accurately represent this workgroup. Furthermore, cathodic protection is a federally mandated safety activity that consists primarily of compliance inspection, associated evaluations, and planned and unplanned maintenance for SoCalGas' distribution system. These activities provide required maintenance

[147] *Id.* at 21.
[148] *Id.*
[149] Ex. CFC-03-R (Roberts) at 9.
[150] *See id.* at 8.
[151] *Id.*

that cannot be overlooked, as aging, corroded pipe directly increases the risk of leaks and can reduce the useful life and performance of the pipeline.

The Commission should approve SoCalGas' base forecast and reject CFC's recommendation because it is incomplete, uses inconsistent data, and does not accurately depict the work associated with this function, which results in underfunding this safety and compliance activity.

### 5. Disputed Cost – Main Maintenance

**Table GOM-13[152]**
**Southern California Gas Company**
**Gas Distribution Main Maintenance O&M Test Year 2019 Estimates**
**(Thousands of Constant 2016 Dollars)**

| | Position of Party | | | | Difference Between Party and SCG | | |
|---|---|---|---|---|---|---|---|
| | SCG | ORA | TURN | CUE | (ORA- SCG) | (TURN-SCG) | (CUE-SCG) |
| **Field O&M- Main Maintenance** | | | | | | | |
| Base Forecast | 16,016 | 11,383 | 12,714 | 16,016 | (4,633) | (3,302) | - |
| Leak Repairs | 6,000 | - | - | 16,905 | (6,000) | (6,000) | 10,905 |
| Fueling Our Future (FOF) | (1,244) | (1,244) | (1,244) | (1,244) | - | - | - |
| **Subtotal** | **20,772** | **10,139** | **11,470** | **31,677** | **(10,633)** | **(9,302)** | **10,905** |

Main maintenance work is designed to meet federal and state pipeline safety regulations and to extend the life of distribution main pipelines and related infrastructure.[153] Main maintenance is generally corrective in nature and primarily comprises leak evaluations, leak repairs, franchise alterations, compliance maintenance, and miscellaneous main maintenance.[154] Furthermore, this request supports SoCalGas' ability to achieve the objective set forth in SB 705 to "[p]rovide timely response to customer and employee reports of leaks and other hazardous conditions and emergency events…"[155]

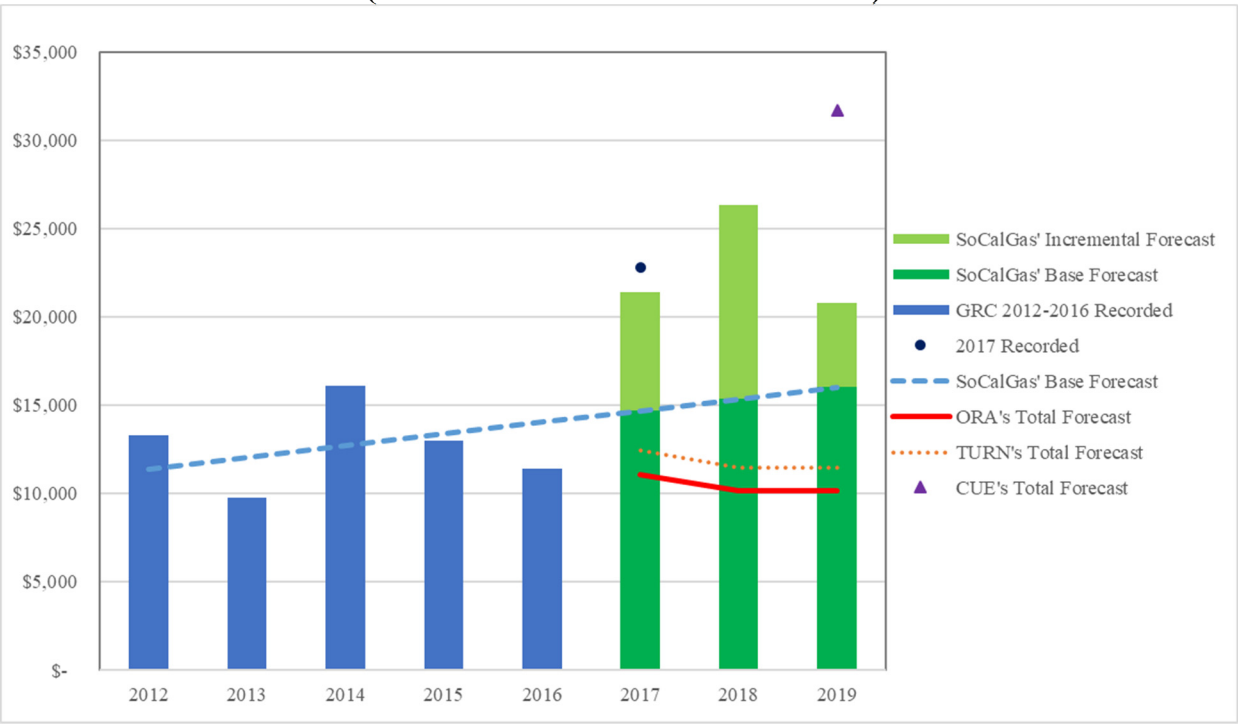
To develop its base forecast, SoCalGas separated credits received for damaged mains from the remaining Main Maintenance expenses because of the unpredictable nature of those credits. SoCalGas forecasted the damage credits using a five-year (2012-2016) average.

[152] Please see Appendix A, Item #1 for a detailed review of corrections of TURN's numbers.
[153] *See* 49 C.F.R. § 192.479; GO 112-F.
[154] Ex. SCG-04-R (Orozco-Mejia) at 50:2-9.
[155] Cal. Pub. Util. Code § 961(d)(6).

SoCalGas expects Main Maintenance expenses to increase in the upcoming years and forecasted those expenses (excluding damage credits) using a five-year (2012-2016) linear trend.[156] As discussed in Section III.B. above, the costs associated with mitigation actions in support of RAMP risks are embedded in the Main Maintenance base forecast.[157] Added to this base are incremental costs not reflected in the base forecast, to adequately fund main maintenance activities in TY 2019 as well as cost savings efficiencies identified as part of the FOF effort.

The figure below represents SoCalGas' total forecast for Main Maintenance, as well as the proposals from ORA, TURN, and CUE, which are discussed in the following sections.

**Figure GOM-07**
**Southern California Gas Company**
**Main Maintenance**
**(Thousands of Constant 2016 Dollars)**




### a. ORA

#### i. Base Forecast

ORA disputes SoCalGas' use of five-year 2012-2016 average for damage credits and five-year 2012-2016 linear trend for the remaining Main Maintenance expenses to determine its

[156] Ex. SCG-04-R (Orozco-Mejia) at 52.
[157] *Id.* at 15, Table GOM-08.

base forecast and asserts that the LRY methodology is more appropriate. ORA recommends the LRY forecast methodology for the total Main Maintenance forecast, using the 2016 Main Maintenance expense and 2016 damage credits.[158] ORA's base forecast recommendation for TY 2019 is $4.633 million lower than SoCalGas' forecast; $11.387 million less than the 2017 recorded expense; and the second lowest annual recorded data in the six-year history (2012-2017). The ORA's recommended level of funding would significantly undercut and insufficiently fund the work for this safety and compliance activity.

As previously discussed, in the upcoming years, SoCalGas expects to see an increase in Main Maintenance expenses (excluding damage credits) as a result of increasing regulatory/legislative pressures, aging infrastructure, and increasing municipality work and general construction.[159] In addition, average leak repair costs have been increasing over the years. This is supported by the data SoCalGas provided in data request CUE-SCG-DR-03, Question 189, part b, subsection vi, shown below:[160]

**Table GOM-14**
**Southern California Gas Company**
**Average Leak Repair Costs**

| Average Unit Cost | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|
| Leak Repair - Main | $1,998 | $1,885 | $ 2,031 | $ 2,531 | $ 2,634 | $ 2,703 |
| Leak Repair - Service | $ 615 | $ 554 | $ 541 | $ 593 | $ 658 | $ 826 |

For the reasons stated above, SoCalGas forecasted Main Maintenance expenses (excluding damage credits) using a five-year, 2012-2016, linear trend.[161]

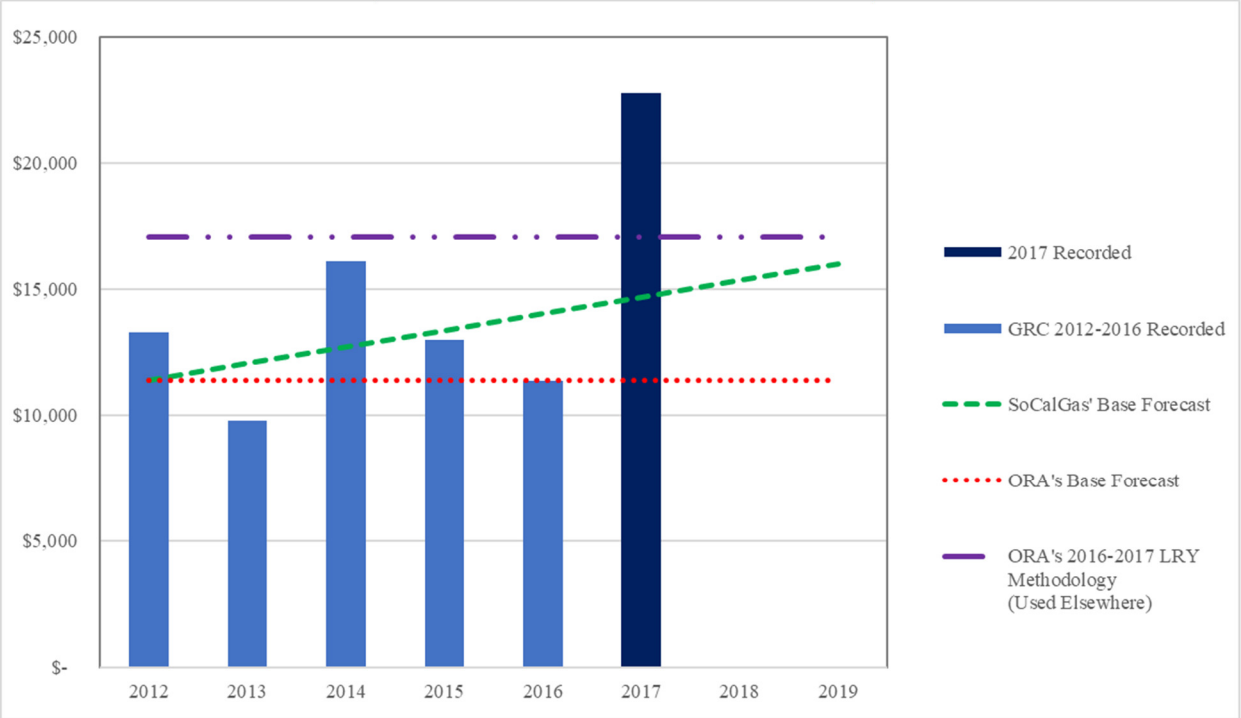
Although SoCalGas disagrees with ORA's rationale on when the LRY methodology should be used, it is important to note that in the Main Maintenance category, ORA is inconsistent in applying its own forecast methodology. ORA recommends using the LRY base forecast for seven out of the eight Field Operations and Maintenance categories, and in each of those recommendations, ORA's methodology averages the 2016 and 2017 recorded expense. Main Maintenance is the only Field Operations and Maintenance category where ORA's methodology for LRY includes only the 2016 expenses and credits, and excludes the 2017

[158] Ex. ORA-11 (Phan) at 22:20-22.
[159] Ex. SCG-04-R (Orozco-Mejia) at 52.
[160] CUE-SCG-DR-03, Question 189.b.vi, attached as Appendix B.
[161] Ex. SCG-04-R (Orozco-Mejia) at 52.

amounts. Had ORA been consistent in the way it applied its own LRY forecast methodology by averaging the 2016 and 2017 actuals, its base forecast for Main Maintenance would have been $17.076 million in TY 2019. This is an increase of $5.693 million above its own forecast, and $1.060 million more than SoCalGas' forecast.

An overview of the historical Main Maintenance expenses as well as SoCalGas' and ORA's base forecasts are provided in the figure below. A line representing ORA's typical LRY forecast methodology used for other Gas Distribution areas is also included, showing what ORA's estimate would have been, had it averaged the 2016 and 2017 recorded costs. As seen below, ORA's base forecast is less than the actual recorded amounts for four out of the six years (2012–2017).

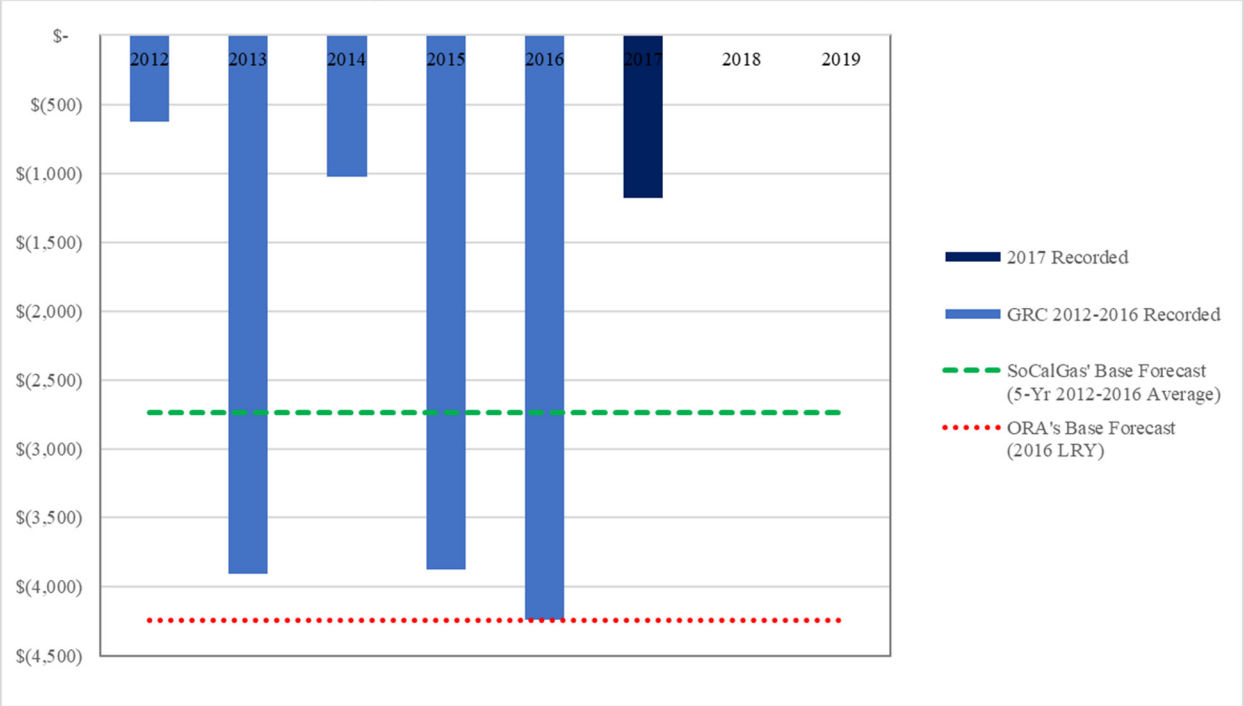
**Figure GOM-08**
**Southern California Gas Company**
**Main Maintenance Base Forecast**
**(Thousands of Constant 2016 Dollars)**




In addition, by selecting the 2016 actuals for damage credits, ORA selected the largest (most negative) total damage credits seen in the last six years (2012-2017). This methodology further reduces the funding available to complete main maintenance activities by another $1.506 million. ORA selectively looked at only three years (2014–2016) to justify its LRY forecast

methodology.[162] However, in a previous GRC proceeding, ORA stated that "data from as many years as possible should be used for a more reliable forecast."[163] Nonetheless, as shown in the figure below, damage credits clearly fluctuate from year to year, which based on ORA's reliance on the 1989 and 2015 decisions would suggest using an average, "for accounts with 'significant fluctuations in recorded expenses from year to year,'" which ORA ignored.[164]

**Figure GOM-09**
**Southern California Gas Company**
**Main Maintenance Damage Credits**
**(Thousands of Constant 2016 Dollars)**




To account for these fluctuations, SoCalGas selected a five-year average (2012-2016) for the damage credits forecast. As SoCalGas explained in my revised direct testimony, an average forecast methodology is best suited for damage credits, given the unpredictability in frequency and severity of damages, and the timing needed to collect funds, after the actual damage expense has been incurred.[165]

[162] Ex. ORA-11 (Phan) at 23.
[163] A.14-11-003/-004 (cons.), Ex. ORA-10 (Phan) at 8.
[164] D.15-11-021 at 210 (quoting D.89-12-057 at 15).
[165] Ex. SCG-04-R (Orozco-Mejia) at 52.

As noted in Section III.B. above, ORA does not discuss SoCalGas' RAMP analysis for Gas Distribution and does not offer testimony regarding the funding of these specific activities from a risk reduction perspective. ORA ignores SoCalGas' base forecast methodology, which includes RAMP embedded base costs to prevent double counting of upward pressures.[166] ORA's recommendation to reduce SoCalGas forecast, fails to recognize that the Main Maintenance forecast helps to reduce the risk of asset failure and enhance public safety.

The Commission should reject ORA's proposed forecast because it is incomplete in its analysis, not factually supported, and does not provide for the necessary funding to perform this safety and compliance activity, and should adopt SoCalGas' base forecast methodology for TY 2019.

### ii. Leak Repairs

ORA does not recognize the need to fund incremental leak repairs, recommending zero funding for this area, resulting in a reduction of $6.000 million in TY 2019.[167] ORA claims that the incremental costs for leak repairs requested are excessive, given the historical pattern of leak repairs, and suggests that SoCalGas' request should be rejected because the 2016 GRC commitments have not been fulfilled.[168] In addition, ORA argues that expenses to repair the non-hazardous main steel leaks in the "backlog"[169] should not be included in this GRC, but instead believes that the appropriate mechanism for cost recovery is through the NERBA, as directed under the SB 1371 Rulemaking's D.17-06-015.[170]

#### a) Leak Repairs: Non-Hazardous Leak Inventory (2017 and 2018)

It appears that ORA misunderstands SoCalGas' testimony and forecast. ORA states "SCG requests an increase of $6.0 million to perform leak repairs it claims are backlogged at year end."[171] However, this does not accurately reflect SoCalGas' forecast. In my revised direct testimony, SoCalGas explains that the inventory of 7,670 main leaks forecasted are to be addressed in 2017 and 2018; with 2,800 leak repairs in 2017 and 4,870 leak repairs in 2018.[172]

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[166] *Id.* at 15, Table GOM-08.
[167] Ex. ORA-11 (Phan) at 27.
[168] *Id.* at 25-26.
[169] *Id.* at 27 (ORA refers to SoCalGas' inventory of non-hazardous pending leak repairs as a "backlog").
[170] *Id.* at 26.
[171] *Id.* at 24 (citing Ex. SCG-04-R (Orozco-Mejia) at 54).
[172] Ex. SCG-04-R (Orozco-Mejia) at 53.

The incremental funding requested for the TY 2019 GRC does not include funding for a leak inventory. The 2016 GRC already authorized the post-test year amounts for the years 2017 and 2018, so those years are not being requested in this GRC. SoCalGas simply showed the updated forecast for these years by including those assumptions for completeness and transparency on status of the inventory. Due to the timing of the TY 2016 GRC decision (mid-2016) and the time needed to ramp up leak repair activities (i.e., project plan development, hiring and training of crews and project management personnel, and acquisition of construction crew vehicles and tools, etc.), SoCalGas did not commence leak repair activities as early as originally anticipated (i.e., during the 2016 test year), which changed the forecasted leak repair numbers and costs per year.

Additionally, ORA claims that the expenses to repair the non-hazardous leaks in the inventory should be recovered through the NERBA, as part of Best Practice 21 under SB 1371.[173] In its SB 1371 Tier 3 Supplemental Advice Letter, SoCalGas did request funding for *incremental* Gas Distribution non-hazardous leak repairs; however, that funding under the NERBA is not requested to start until the year 2019.[174] As explained in my revised direct testimony, since SoCalGas was already authorized funding for its non-hazardous leak inventory through the year 2018, in the TY 2016 GRC, SoCalGas is continuing with that leak repair activity through 2018.[175] Starting in 2019, leaks remaining in the non-hazardous leak inventory after the TY 2016 GRC leak repair activity will be funded through SB 1371's NERBA. The 2017–2018 leak repair cost forecasts SoCalGas provided in my revised direct testimony were based on the non-hazardous main steel leaks that existed prior to 2017. Under the SB 1371 Advice Letter, the 2019 incremental leak repair cost forecast associated with the non-hazardous

[173] Ex. ORA-11 (Phan) at 26-27.
[174] AL 5211-A, Attachment B at 40-44 (While GO 112-F does not require the repair of non-hazardous leaks, SoCalGas committed to their repair in the TY 2016 GRC, which then subsequently also became part of Best Practice 21 in the SB 1371 D.17-06-015. The timing of the TY 2016 GRC Decision in mid-2016 and the SB 1371 Decision in mid-2017 may contribute to ORA's misunderstanding of the funding requests for repairs during 2017-2019 for the non-hazardous leak inventory, but they are not duplicative).
[175] Ex. SCG-04-R (Orozco-Mejia) at 53; s*ee also* D.16-06-054 at 22-23; A.14-11-003/-004 (cons.), Joint Motion for Adoption of Settlement Agreements Regarding Southern California Gas Company's Test Year 2016 General Rate Case, Including Attrition Years 2017 & 2018 (September 11, 2015) Exhibit B at B-2.

leak inventory are estimated based on leaks found starting in 2017 and will be recovered through the NERBA.[176]

**b) Leak Repairs: Increased Leak Survey Activities (TY 2019)**

SoCalGas also anticipates an increase in leaks found, as a result of the increased leak survey activities that are safety and integrity driven, which would also increase the number of leak repairs. The current forecast for incremental leak repairs starting in TY 2019 is 2,400.[177] These TY 2019 repairs are meant to address new leaks found due to the increased leak survey and are not associated with an existing inventory, as ORA stated.[178]

The new leak survey activities are the Bi-Annual High-Pressure Leak Survey and the Enhanced Leak Survey – Early Vintage Plastic Pipe. A description of these incremental activities can be found on pages GOM-38 – GOM-39 of my revised direct testimony, under the Leak Survey category.[179] While ORA took issue with the Bi-Annual High-Pressure Leak Survey as stated above, it did not dispute the Enhanced Leak Survey – Early Vintage Plastic Pipe.[180] In fact, ORA actually recommends that the Aldyl-A (early vintage plastic) pipelines be repaired and replaced as necessary during the 2019 GRC cycle:

> ORA does not dispute SCG's proposal to increase the survey frequency of Aldyl-A pipes by performing annual surveys. However, ORA recommends the Commission require SCG to adhere to its proposed annual survey cycle, and to repair and replace the Aldyl-A pipelines as necessary, during the 2019 GRC cycle.[181]

This directly contradicts ORA's recommendation under Main Maintenance, where ORA recommended zero incremental funding for the incremental leak repairs associated with the Enhanced Leak Survey – Early Vintage Plastic Pipe. As provided in data request ORA-SCG-046-DAO, Question 4, 99% of the leaks that SoCalGas expects to find as a result of these

[176] SCG will work with Energy Division and Safety and Enforcement Division to update and clarify the forecast methodology in its SB1371 Tier 3 Advice Letter and Compliance Plan.
[177] Ex. SCG-04-R (Orozco-Mejia) at 53.
[178] Ex. ORA-11 (Phan) at 24:5-6.
[179] Ex. SCG-04-R (Orozco-Mejia) at 38-39 (These leak repairs are safety- and integrity-driven, and thus were not included in the SB 1371's Advice Letter funding request driven by methane emissions reductions).
[180] Ex. ORA-11 (Phan) at 13-16.
[181] *Id.* at 16.

incremental leak surveys through TY 2019 are related to the incremental Enhanced Leak Survey – Early Vintage Plastic Pipe, and not the Bi-Annual High-Pressure Leak Survey.[182]

Even though ORA took issue with the Bi-Annual High-Pressure Leak Survey, SoCalGas is required per GO 112-F to, at a minimum, perform this activity for DOT-defined transmission lines, as explained in the section discussing Leak Survey cost above; therefore, SoCalGas anticipates that some incremental leak indications will result from this activity. To be consistent with its recommendation for Enhanced Leak Survey – Early Vintage Plastic Pipe, ORA should have similarly agreed with the incremental dollars required for the associated leak repairs resulting from the accelerated surveys.

Since ORA's recommendation is based on a misunderstanding of SoCalGas' forecast, and is contradictory to its own recommendation under leak survey, the Commission should reject ORA's forecast for this incremental activity and adopt SoCalGas' TY 2019 forecast of $6.0 million for incremental leak repairs.

#### iii. Fueling Our Future

ORA does not dispute SoCalGas' cost savings forecast for FOF.[183]

### b. TURN

#### i. Base Forecast

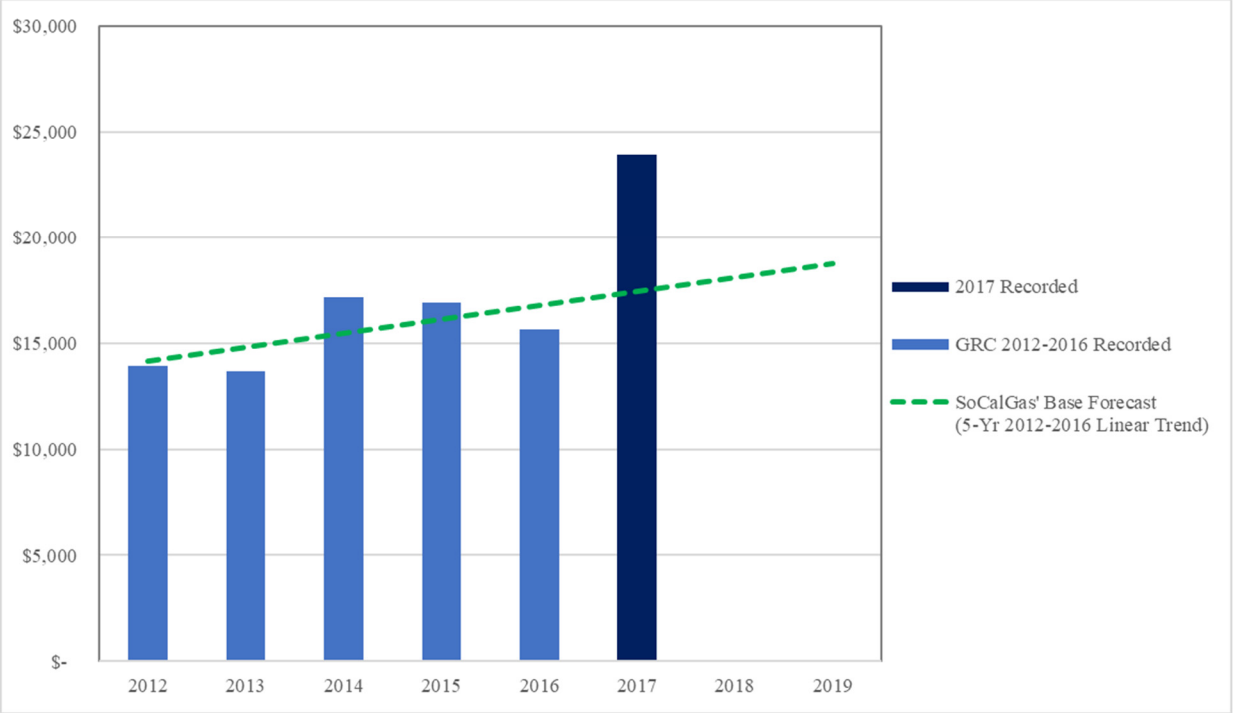
TURN states that while it supports ORA's recommendation ($11.383 million), it proposes to use the five-year average. TURN's resulting base forecast is $12.714 million.[184]

TURN disagrees with SoCalGas' base forecast, saying that there is no persuasive evidence that cost drivers are causing an upward trend and that the total costs excluding damage credits show relatively little trend except for a decline in the years 2014-2016.[185] However, as shown in the figure below, the Main Maintenance expenses excluding damage credits have been trending generally upward since 2012. As SoCalGas has previously stated, trends indicate a

[182] ORA-SCG-46-DAO, Question 4, attached as Appendix B.
[183] Ex. ORA-11 (Phan) at 27.
[184] Ex. TURN-09 (Hawiger) at 3-4 (While TURN claims that its base forecast is the five-year average, its forecast ($12.413 million) is actually equal to the five-year trend of the 2012-2016 Main Maintenance total. A five-year 2012-2016 average forecast would have been $12.714 million, as TURN provided in its discussion of the various forecasting options.).
[185] *Id.* at 2.

general movement along a directional line that do not specifically require an exact rigid placement for each data point.

**Figure GOM-10**
**Southern California Gas Company**
**Main Maintenance Excluding Damage Credits**
**(Thousands of Constant 2016 Dollars)**




Furthermore, as described in my revised direct testimony, there are multiple factors that influence the level of work and spending on main maintenance, including:

- The level of compliance work.
- The number of leaks evaluated and repaired each year.
- The level of repairs associated with damages to SoCalGas' facilities by third parties.
- The level of work completed by municipalities.
- Cost of materials, permitting, paving and special municipality construction requirements.[186]

Another example of an upward trend is shown in the table below, which was also included in a data request response, and provides the costs associated with municipality requests to remove previously-abandoned mains.[187]

[186] Ex. SCG-04-R (Orozco-Mejia) at 55-56.
[187] ORA-SCG-050-DAO, Question 1.b, attached as Appendix B.

**Table GOM-15**
**Southern California Gas Company**
**Main Maintenance Routine Expenses 2013 – November 2017**

| Main Maintenance Routine Expenses | | | | |
|---|---|---|---|---|
| 2013 | 2014 | 2015 | 2016 | 2017 |
| $ 63,678 | $ 159,523 | $ 271,994 | $ 500,477 | $ 449,880 |

As previously discussed in the ORA section above, it is necessary to look at damage credits in Main Maintenance separately, given the unpredictability in frequency and severity of damages and the timing needed to collect funds, after the actual damage expense has been incurred. To account for these fluctuations, SoCalGas selected a five-year average (2012-2016) for the damage credits forecast.

For the reasons discussed above, the Commission should reject TURN's forecast methodology, and adopt SoCalGas' base forecast for Main Maintenance.

**ii. Leak Repairs**

TURN agrees with ORA's recommendation of no funding for incremental leak repairs, based on historical leak repair levels, and claiming that incremental costs should be recorded in the NERBA.[188] It appears that TURN misunderstands SoCalGas' TY 2019, similar to ORA. As discussed in the ORA section above, SoCalGas is not requesting incremental funding in TY 2019 for the leak inventory, but instead for the leak repairs anticipated as a result of the increased safety- and integrity-driven leak survey activity.

TURN goes on to recommend that the Commission fund the repair of existing leaks in only one proceeding.[189] As discussed above, SoCalGas is already proposing something similar. The leak repair inventory estimated for repair work in 2017 and 2018, included in the TY 2019 GRC for completeness of information, but funded through the TY 2016 GRC, is based on the non-hazardous leaks found prior to 2017. Under SB 1371, incremental leak repairs in 2019 associated with the non-hazardous leak inventory are estimated based on leaks found starting in 2017.[190] SoCalGas is not requesting funding for the same activity in two separate proceedings.

[188] Ex. TURN-09 (Hawiger) at 4.
[189] *Id.* at 5.
[190] SCG will work with Energy Division and Safety and Enforcement Division to update and clarify the forecast methodology in its SB1371 Tier 3 Advice Letter and Compliance Plan.

Since TURN's recommendation is based on a misunderstanding of SoCalGas' forecast, the Commission should reject TURN's forecast for this incremental activity and adopt SoCalGas' TY 2019 forecast of $6.0 million for incremental leak repairs.

**iii. Fueling Our Future**

TURN does not dispute SoCalGas' cost savings forecast for FOF.[191]

**c. CUE**

**i. Leak Repairs**

CUE recommends $16.905 million in TY 2019, instead of SoCalGas' $6.0 million to address the incremental increase activity associated with additional leak repairs.[192] CUE states the backlog got worse in 2017 due to the inventory growing from 2016 to 2017.[193] CUE also states that at the current rate of leak repairs, the inventory will continue to grow during this GRC cycle and will be higher in TY 2019 than in 2016.[194]

In my revised direct testimony, SoCalGas explains that the inventory of 7,670 non-hazardous steel main leaks will be addressed in 2017 and 2018.[195] In addition, SoCalGas anticipates an increase in leaks found, as a result of the accelerated annual Aldyl-A and bi-annual high-pressure leak surveys. The current forecast for the incremental number of leak repairs driven by this incremental leak survey activity in TY 2019 is 2,400.[196] As explained above, SoCalGas' incremental leak repair forecast for TY 2019 does not include leak repairs associated with the post-2016 leak inventory because those leaks are expected to be addressed in SB 1371, and should not be double counted here.

SoCalGas agrees with CUE that utilizing the five-year (2012-2016) trend is reasonable to calculate the base forecast incremental work for the GRC period. However, SoCalGas disagrees with CUE that it is "moving in the wrong direction."[197] SoCalGas' five-year linear trend used for its base forecast addresses the base leak indications work; the incremental increases in 2017 and

[191] Ex. TURN-09 (Hawiger) at 4.
[192] CUE (Marcus) at 25.
[193] *Id.* at 23.
[194] *Id.*
[195] Ex. SCG-04-R (Orozco-Mejia) at 53.
[196] *Id.* at 53.
[197] CUE (Marcus) at 23.

2018 address pre-2017 non-hazardous leaks in the inventory; and the incremental increase in 2019 addresses incremental leaks as a result of incremental leak survey activities.

Therefore, the Commission should adopt SoCalGas' forecast.

### 6. Disputed Cost – Service Maintenance

**Table GOM-16**
**Southern California Gas Company**
**Gas Distribution Service Maintenance O&M Test Year 2019 Estimates**
**(Thousands of Constant 2016 Dollars)**

| | Position of Party | | | | Difference Between Party and SCG | | |
|---|---|---|---|---|---|---|---|
| | SCG | ORA | TURN | CUE | (ORA-SCG) | (TURN-SCG) | (CUE-SCG) |
| **Field O&M- Service Maintenance** | | | | | | | |
| Base Forecast | 12,334 | 11,465 | 11,465 | 12,334 | (869) | (869) | - |
| MSA Maintenance Activities | 1,523 | - | - | 1,693 | (1,523) | (1,523) | 170 |
| Meter Guard | 1,109 | - | - | 1,109 | (1,109) | (1,109) | - |
| Chronically Inaccessible Meters | 2,106 | - | - | 2,106 | (2,106) | (2,106) | - |
| Fueling Our Future (FOF) | (75) | (75) | (75) | (75) | - | - | - |
| **Subtotal** | **16,997** | **11,390** | **11,390** | **17,167** | **(5,607)** | **(5,607)** | **170** |

Service maintenance work is designed to meet federal and state pipeline safety regulations and to extend the life of distribution service pipes and related infrastructure.[198] Service maintenance is generally corrective in nature and primarily comprised of evaluation and repair of service leaks, service alterations, MSA alterations and meter guard replacements, and miscellaneous service and MSA maintenance.[199]

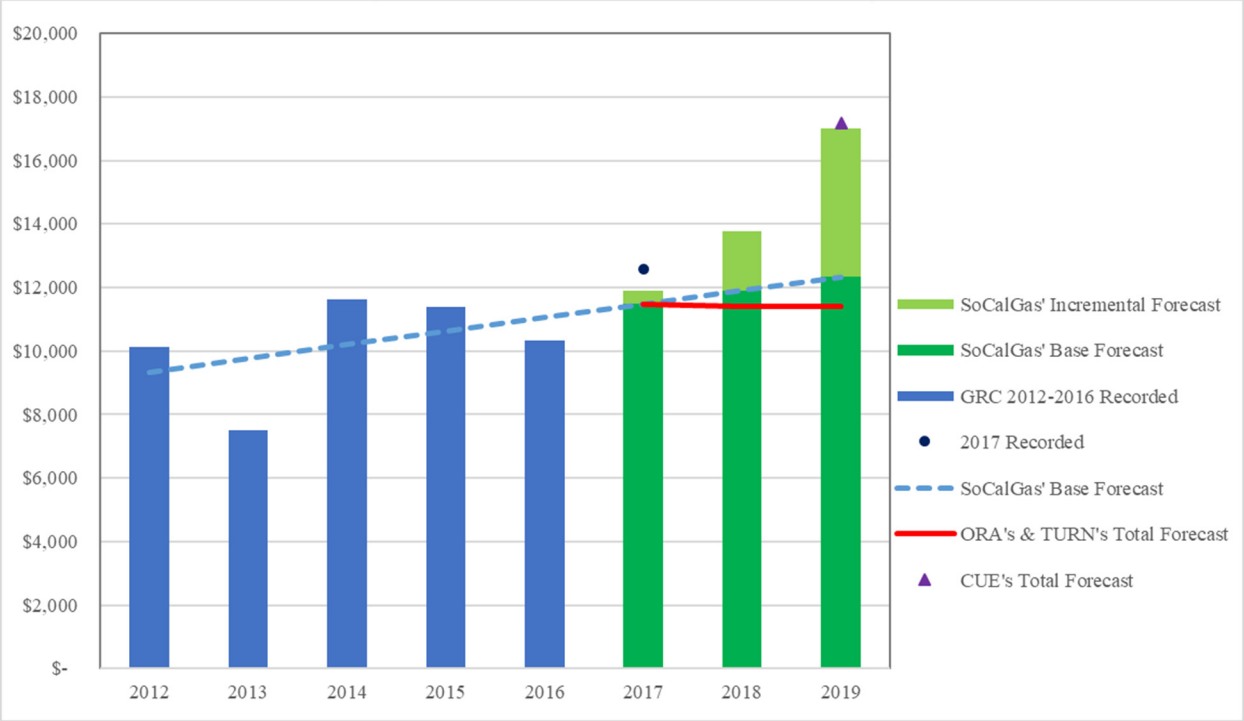
For the Service Maintenance expenses, SoCalGas expects to see an increase in the age of infrastructure, customer requests, and municipality requirements; and improved economic conditions.[200] Due to these upward pressures, SoCalGas expects Service Maintenance expenses to increase in upcoming years, and forecasted those expenses using a five-year (2012-2016) linear trend.[201] As discussed in Section III.B. above, the costs associated with mitigation actions in support of RAMP risks are embedded in the Service Maintenance base forecast.[202] Added to this base are incremental work elements not reflected in the base forecast to adequately fund

[198] Ex. SCG-04-R (Orozco-Mejia) at 56.
[199] *Id.* at 56-57. *See also* 42 C.F.R. § 192.479 and GO 112-F.
[200] Ex. SCG-04-R (Orozco-Mejia) at 58.
[201] *Id.* at 58.
[202] *Id.* at 14, Table GOM-07.

service maintenance activities in TY 2019 as well as cost savings efficiencies identified as part of the FOF effort.

The figure below represents SoCalGas' total forecast for Service Maintenance, as well as the proposals of ORA, TURN, and CUE, which are discussed in the following sections.

**Figure GOM-11**
**Southern California Gas Company**
**Service Maintenance**
**(Thousands of Constant 2016 Dollars)**




### a. ORA

ORA proposes a $5.607 million reduction in TY 2019 funding for this area, recommending the average of the 2016 and 2017 recorded spending for the base forecast, zero incremental funding for MSA Maintenance Activities, Meter Guard Activities, and Chronically Inaccessible MSAs, and accepting SoCalGas' FOF savings forecast.[203] ORA's positions are discussed below.

#### i. Base Forecast

ORA disputes the TY 2019 O&M base forecast for Service Maintenance, including SoCalGas' use of the five-year (2012-2016) linear trend for the Service Maintenance expenses.

[203] Ex. ORA-11 (Phan) at 28.

Instead, ORA recommends using the LRY methodology that averages the BY 2016 and 2017 recorded spending for the base forecast.[204] ORA's base forecast of $11.465 million would result in a reduction of $0.869 million for Service Maintenance in TY 2019.[205]

As discussed in Section III above, ORA's use of the LRY methodology to justify its base forecast recommendation results in an incomplete view of TY 2019 requirements because it does not recognize the need to fund the anticipated base growth in work, RAMP risk mitigation activities, and associated expenses. Furthermore, ORA's recommended base forecast suggests growth will stagnate below 2017 recorded levels, which is not supported by the historical information or the drivers of this activity.

SoCalGas disagrees with ORA's recommendation as the expenditures in this work activity have increased steadily in an upward direction. The variation in total recorded expenditures is mainly due to the variation in damage credits that affect the non-labor expenditures in this work activity. The figure below shows a representation of the expenditures without the damage credits.

[204] *Id.* at 29.
[205] *Id.*

**Figure GOM-12**
**Southern California Gas Company**
**Service Maintenance Excluding Damage Credits**
**(Thousands of Constant 2016 Dollars)**

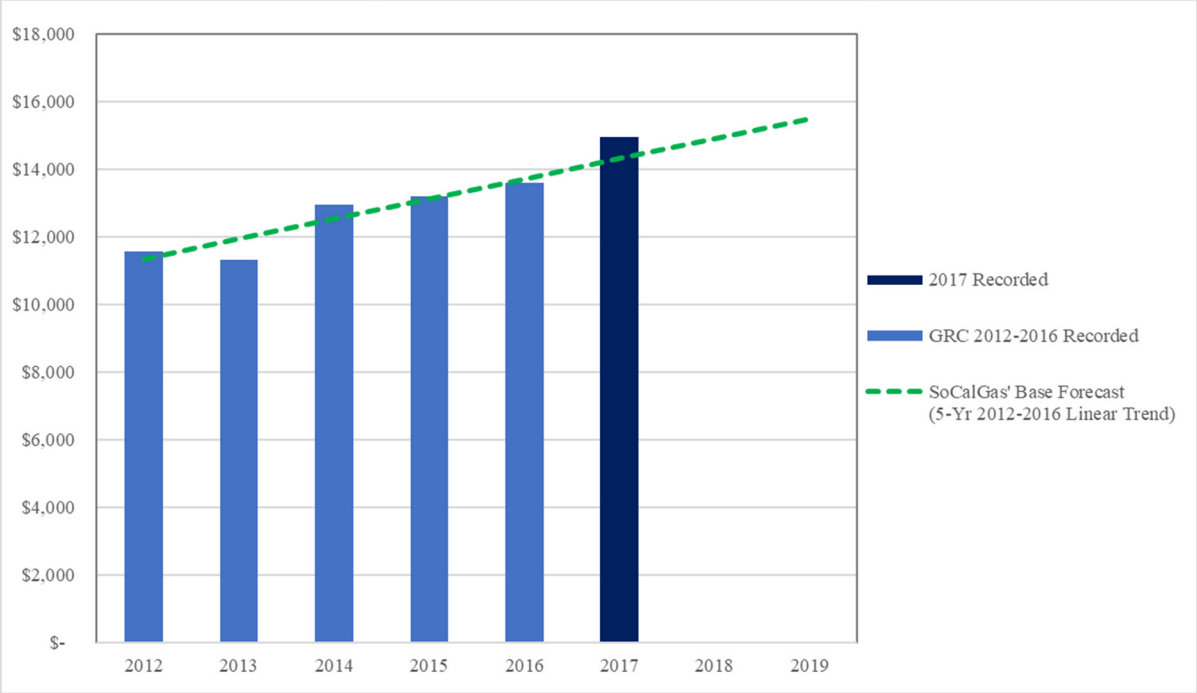
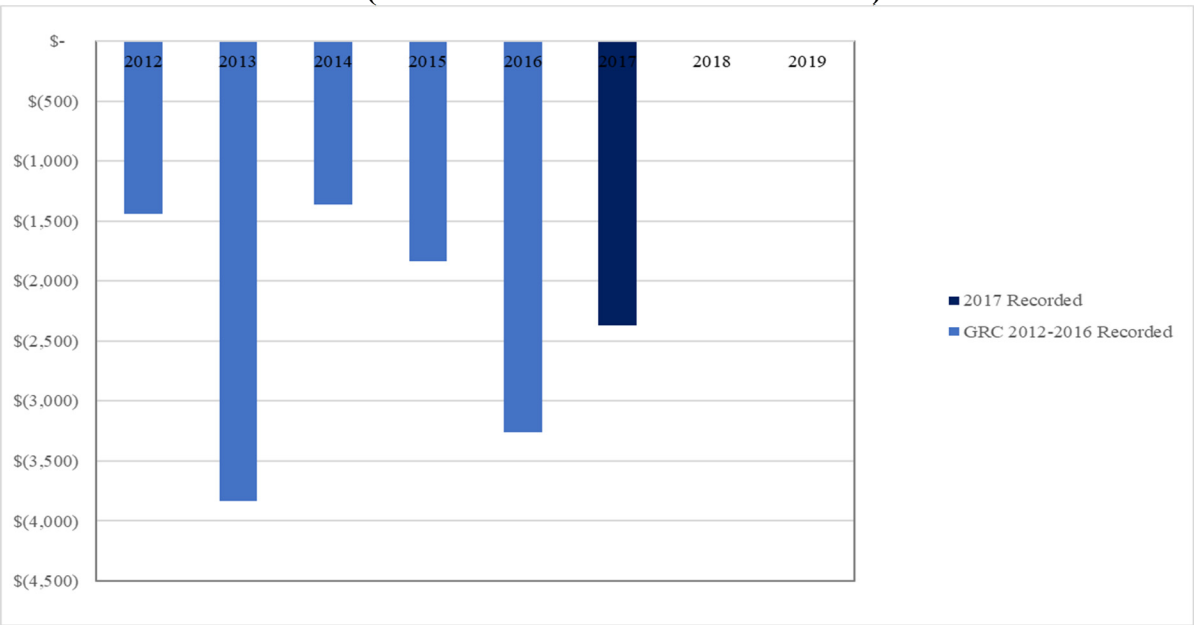



**Figure GOM-13**
**Southern California Gas Company**
**Service Maintenance Damage Credits**
**(Thousands of Constant 2016 Dollars)**



The 2017 recorded expenditures show a clear continuation of this upward trend, which supports SoCalGas' selection of a five-year (2012-2016) linear trend, as the level of expenditures are expected to continue in an upward direction.

The service maintenance activity is a mitigation measure supporting key safety risks identified in the RAMP Section II of my revised direct testimony and Section III.B. of this rebuttal testimony. Service maintenance addresses the repair of leaks and miscellaneous service and MSA maintenance, which helps to mitigate risks that can impact public and employee safety as well as the integrity of the pipeline system.

ORA's base forecast recommendation for TY 2019 of $11.465 million is inadequate to cover SoCalGas base funding needs of $12.334 million.[206] Moreover, ORA's base forecast recommendation is $1.126 million less than the 2017 recorded expense of $12.591 million. The level of funding recommended by ORA simply does not provide the funding necessary to complete the work in this safety and compliance activity in TY 2019.

The Commission should reject ORA's proposed forecast as it is incomplete in its analysis and does not provide for the necessary funding to perform this safety and compliance activity and should adopt the SoCalGas five-year linear trend (2012-2016) for its TY 2019 base forecast.

**ii. MSA Maintenance**

ORA disputes SoCalGas' forecast for MSA Maintenance work, recommending zero funding for this area, a reduction of $1.523 million in TY 2019.[207] ORA states that the level of MSA maintenance work will not be increasing and it is unsubstantiated.[208] In addition, ORA argues that fewer annual inspections will occur in 2019 than in 2017.[209]

It appears that ORA misunderstands SoCalGas' testimony and forecast. With the implementation of AMI and elimination of most meter readers, in 2016 SoCalGas implemented a focused MSA inspection program to comply with atmospheric corrosion code requirements and to perform a more thorough review of conditions at the MSA.[210] MSA Inspection Representatives, who are Operator Qualified in more elements and higher skilled than meter readers, will be required to thoroughly inspect all aspects of the MSA, including the gas riser, all

[206] *Id.* at 29.
[207] *Id.* at 29, 31.
[208] *Id.* at 29.
[209] *Id.*
[210] TURN-DR-SEU-030, Question 1.c, attached as Appendix B.

piping, the regulator and the meter, from all directions and angles, while physically present at each MSA. Due to these more thorough inspections, the amount of work orders generated for maintenance follow-up increased. This is an existing, known, inventory of work. As Customer Service continues this MSA inspection program, SoCalGas is expecting the volume of orders requiring follow-up to increase.

The incremental funding requested by Gas Distribution for the TY 2019 GRC is for work orders that were generated by MSA inspections in 2016 and 2017. Therefore, Gas Distribution's incremental increase related to an existing inventory is independent of the future MSA inspection work ORA references and is covered by witness, Gwen Marelli's revised testimony.[211]

ORA disputes the historical data provided for MSA work orders.[212] ORA states the number of MSA maintenance orders and expenses have decreased over the last 4-year period, from 2014-2017, with 2017 being the lowest.[213] However, this incremental increase is for a new targeted effort to address a recently emerging inventory of work in 2016 and 2017. Therefore, the existing work history would not reflect this incremental work. ORA also takes issue with the number of MSA maintenance orders completed in 2017.[214] SoCalGas' actual expense in 2017 was higher than it forecasted for the Service Maintenance work category, and although the number of MSA maintenance orders was lower,some orders take more time to complete and therefore, are more expensive than others. SoCalGas acknowledges that it did not complete the number of work orders it anticipated in 2017. However, SoCalGas anticipates meeting its TY 2019 forecast amount, as detailed in the supplemental workpaper SCG-04-GOM-O&M-SUP-007.[215]

As shown in the table below, the number of MSA Maintenance orders have increased, almost doubling from the previous year in 2016, and increasing again in 2017. SoCalGas'

[211] December 20, 2017, Revised Direct Testimony on Customer Services – Field and Meter Reading, Exhibit SCG-18-R (Gwen Marelli) at 38-39 (Pursuant to 49 C.F.R. § 192.481, "the DOT generally requires that each MSA be inspected every three years for atmospheric corrosion. . . . The CS-F MSA Inspection Organization performs physical, onsite inspections of each MSA to comply with DOT required MSA inspections for atmospheric corrosion, to identify conditions which require remediation by CS-F and Distribution field employees, and to contact customers to resolve meter access issues.").
[212] Ex. ORA-11 (Phan) at 30:12-14.
[213] *Id.* at 30:12-14.
[214] *Id*.
[215] Ex. SCG-04-WP (Orozco-Mejia) at 80.

incremental MSA Maintenance activities are aimed at addressing the significant amount of orders that were generated in 2016 and 2017.

**Table GOM-17**
**Southern California Gas Company**
**Meter Set Assembly Maintenance Orders**

| Work Orders | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|
| MSA Maintenance submitted | N/A* | 14,991 | 17,364 | 21,870 | 40,033 | 44,883 |

*Note: The year-end number for 2012 is in the legacy system and is not readily accessible. SoCalGas transitioned to electronic SAP tracking technology in 2013

Since ORA's recommendation is based on a misunderstanding of SoCalGas' forecast, the Commission should reject ORA's forecast for this incremental activity and adopt SoCalGas' TY 2019 forecast of $1.523 million for incremental MSA Maintenance activities.

### iii. Meter Guard Activities

ORA disputes SoCalGas' forecast for MSA Maintenance work, recommending zero funding for this area, a reduction of $1.109 million in TY 2019.[216] ORA states that the request for the incremental level of Meter Guard activities is excessive, unsupported, and unrealistic.[217] In addition, ORA argues that fewer annual inspections will occur in 2019 than in 2017, and therefore, believes the volume of work will not increase.[218]

It appears that ORA misunderstands SoCalGas' testimony and forecast. As mentioned above, under MSA Maintenance activities, in 2016 SoCalGas implemented a focused MSA inspection program to comply with atmospheric corrosion code requirements and to perform a more thorough review of conditions at the MSA.[219] Due to these more thorough inspections, the amount of work orders generated for maintenance follow-up increased. SoCalGas' incremental request is to address the volume of orders that were generated during 2016 and 2017. This is an existing, known inventory of work. As Customer Services continue these MSA inspections through the MSA inspection program, SoCalGas is expecting the volume of orders requiring follow-up to increase.

[216] Ex. ORA-11 (Phan) at 27:12-13 & 32:13-15.
[217] *Id.* at 32:4.
[218] *Id.* at 31:24-25.
[219] TURN-DR-SEU-030, Question 1.c, attached as Appendix B.

The incremental funding requested here for the TY 2019 GRC is for work orders that were generated by MSA inspections in 2016 and 2017 and does not include funding for follow-up work orders generated by MSA inspections beyond that time. Therefore, this incremental increase is independent of the future MSA Inspection work ORA references and is covered by witness, Gwen Marelli.[220]

ORA also points to the historical number of meter guard replacements completed. However, this incremental increase is for a new program to address a recently created inventory of work. Therefore, the work history does not include this incremental work. Furthermore, due to the time needed to ramp up a focused Meter Guard replacement project, SoCalGas did not address the incremental work orders originally forecasted for 2017. However, SoCalGas has been working on the implementation plan and support team responsible for this effort starting in 2018 and anticipates meeting its TY 2019 forecast amount, as detailed in the supplemental workpaper SCG-04-GOM-O&M-SUP-007.[221]

Since ORA's recommendation is based on a misunderstanding of SoCalGas' forecast, the Commission should reject ORA's forecast for this incremental activity and adopt SoCalGas' TY 2019 forecast of $1.109 million for incremental Meter Guard replacement activities.

**iv. Inaccessible MSAs—Disconnect Services**

ORA disputes SoCalGas' forecast for Inaccessible MSAs – Disconnect Services, recommending zero funding for this area, a reduction of $2.106 million in TY 2019.[222] ORA states SoCalGas does not have adequate support for this request and believes this is not a new activity.[223]

SoCalGas' Gas Distribution Operations' request to perform incremental disconnect services is necessary to support SoCalGas' Customer Services - Field (CS-F) Operations' work to address chronically inaccessible meters for MSA inspections. This disputed work is driven by SoCalGas' requirement to complete the inspection per 49 C.F.R. § 192.481 and to mitigate risks associated with safety and gas system integrity.

[220] Ex. SCG-18 (Marelli) at 38-44.
[221] Ex. SCG-04-WP (Orozco-Mejia) at 79.
[222] Ex. ORA-11 (Phan) at 27:12-13.
[223] *Id.* at 33:6.

ORA points to the historical number of service line disconnects and notes that the available information shows a very low number.[224] However, it is important to note that the increase in activity level is needed to address chronically inaccessible MSAs currently experienced by the MSA Inspections group.[225] Meter readers have historically performed inspections on a monthly basis and did not have to be physically present at the meter to obtain the read and perform the visual inspection. The meter reader's regular monthly visits resulted in a lower chronic access issue, because meter readers had 36 opportunities to address any access issue over the three-year inspection window mandated by 49 C.F.R. § 192.481. With the implementation of the MSA Inspection Program,[226] unlike the meter reader's monthly visits, MSA Inspection employees are scheduled to visit the facility once every three calendar years, and must physically gain access to the meter to perform more comprehensive MSA inspections.[227] Therefore, gaining access to these facilities must now be addressed in a different manner, including, but not limited to, disconnecting the service line. Disconnecting the service line is the last and final step in the process after the MSA Inspection group has made multiple attempts by phone and letters to schedule an appointment with the customer, as well as multiple visits, in an effort to gain access to the MSA to complete the mandated inspection.[228] Under CPUC-approved SoCalGas Tariff Rule 25, SoCalGas has the right to safe access to the gas meter during all reasonable hours as a condition of service. Furthermore, under CPUC-approved SoCalGas Tariff Rule 9, after written notice, SoCalGas has the right to discontinue the service to a customer for non-compliance with any of its tariffs.

As explained above, the work history is not representative of future work for this incremental activity.[229] This activity will support Customer Service Field Operations request to

[224] *Id.* at 33:16-18.
[225] Ex. SCG-18 (Marelli) at 26.
[226] *Id.* at 39.
[227] *Id*.
[228] *Id*. at 26.
[229] Ex. ORA-11 (Phan) at 33:1-15 (ORA states SoCalGas did not explain how it derived the .4% chronically inaccessible rate associated with mandated MSA inspections. The .4% is based off January – October 2016 data with regards to 3,198 chronic facilities divided by 737,788 inspection orders).

restore 709 incremental restore orders associated with chronically inaccessible meters for MSA inspections of which ORA did not take issue with.[230]

Since ORA's recommendation is based on a misunderstanding of SoCalGas' forecast, the Commission should reject ORA's forecast and adopt SoCalGas' TY 2019 forecast of $2.106 million for incremental disconnect service line activities.

#### v. Fueling Our Future

ORA does not dispute SoCalGas' cost savings forecast for FOF.[231]

### b. TURN

#### i. Base Forecast

Although TURN states using a five-year (2013-2017) recorded average for the base forecast would be more reasonable for Service Maintenance, TURN supports ORA's recommendations for using the average of the 2016 and 2017 recorded spending for the base forecast.[232] TURN disputes SoCalGas' use of the five-year (2012-2016) linear trend for the base forecast for TY 2019.

TURN states the historical costs show little trend, aside from a decline in 2014-2016.[233] SoCalGas disagrees with TURN's recommendation as the expenditures in this work activity have increased in an upward direction, and is supported by the data in Figure GOM-12 in the ORA Section above. The variation in total recorded expenditures is mainly due to the variation in damage credits that affect the non-labor expenditures in this work activity. Figure GOM-12 above shows a representation of the expenditures without damage credits. Figure GOM-13 above, shows expenditures with damage credits for Service Maintenance.

TURN states that it was unable to reproduce the trending analysis SoCalGas produced due to SoCalGas' refusal to provide the Excel spreadsheet showing the trending analysis.[234] However, as SoCalGas stated in its response to TURN's data request, SoCalGas did not refuse to provide the Excel document, the data was simply not available in Excel.[235] The historical data

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[230] April 13, 2018, ORA Report on SoCalGas Customer Services – Field & Meter Reading; Office Operations; Information; and Technologies, Policies & Solutions, Exhibit ORA-17 (Crystal Yeh) at 7:12-13.
[231] Ex. ORA-11 (Phan) at 27:16.
[232] Ex. TURN-09 (Hawiger) at 7:4-7.
[233] *Id.* at 6:11.
[234] *Id.* at 6:6-7.
[235] TURN-DR-SEU-018, Question 13.a, attached as Appendix B.

provided on page 71 of workpaper SCG-04-WP can be used to calculated the trend SoCalGas used for its base forecast and was actually produced on page 72 of the same workpaper. This information is shown in the table below.

**Table GOM-18**
**Southern California Gas Company**
**Service Maintenance Trend Formula**

| Years | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|
| Labor | $ 8,890 | $ 8,674 | $ 9,972 | $ 10,119 | $ 9,881 | $ 10,535 | $ 10,878 | $ 11,221 |
| Non-Labor | $ 1,243 | $ (1,160) | $ 1,640 | $ 1,261 | $ 457 | $ 943 | $ 1,028 | $ 1,113 |
| Total | $ 10,133 | $ 7,514 | $ 11,612 | $ 11,380 | $ 10,338 | $ 11,478 | $ 11,906 | $ 12,333 |

SoCalGas fully supported its base forecast and incremental increase activities, therefore, the Commission should reject TURN's proposed forecast because it does not provide for the necessary funding to perform this safety and compliance activity, and should adopt SoCalGas forecast for TY 2019.

### c. CUE

#### i. MSA Maintenance

CUE disagrees with SoCalGas request for the MSA Maintenance incremental increase activity and proposes incremental spending of $0.170 million in TY 2019 for MSA service repairs to address the growing inventory of MSA maintenance orders.[236] This results in a total forecast for this incremental increase item of $1.693 million, instead of SoCalGas' request of $1.523 million.

CUE's main argument is that SoCalGas should have completed approximately 2,851 more orders than it did in 2017.[237] CUE estimates that the inventory grew further by the amount not completed in 2017, and proposes that a third of this number be added to the forecast of work for TY 2019.[238]

SoCalGas' actual expense in 2017 was higher than it forecasted for the Service Maintenance work category, and although the number of MSA maintenance orders was lower, one of the reasons may be the mix of work. Some orders take more time to complete and are

[236] CUE (Marcus) at 34:15-16 & n.223 (The total incremental amount CUE proposed for this activity across Service Maintenance and Tools, Fittings, and Materials is $179,550).
[237] *Id.* at 34:5-6.
[238] *Id.* at 34:10-11.

therefore, more expensive than others. SoCalGas acknowledges that it did not complete the number of incremental work orders originally estimated during 2017 for this particular incremental increase item. However, SoCalGas anticipates meeting its TY 2019 forecast amount, as detailed in the supplemental workpaper SCG-04-GOM-O&M-SUP-007.

SoCalGas' proposed volume of incremental work in TY 2019 is aimed at reducing the current inventory, therefore the Commission should accept SoCalGas forecast for TY 2019.

**ii. Anodeless Risers**

CUE takes issue with SoCalGas' inspection and repair of anodeless risers, saying that SoCalGas has steadily increased the time between discovery and repair of leaks from one day to a maximum of ten business days. CUE states that this ten-day delay is based on the "hypothetical" time to obtain a USA permit, and recommends that SoCalGas reinstate the 2012 policy that required the immediate repair of leaks at risers and make a better quality riser installation product that is less prone to leaking.[239]

Contrary to CUE's testimony, the ten-day period for non-hazardous leaks is not hypothetical. The USA notification requires two business days for non-emergency response by other utilities before excavating. Excavations done by hand tools are not exempt from needing USA notification, and CUE's suggestion that third party locate and mark is not needed for this type of work is inaccurate, and would introduce an unnecessary risk to the process. In addition, Assembly Bill 1937 requires a notification of three business days to a qualifying school, hospital and/or registered licensed day care facility within 500 feet proximity to planned construction excavation activity on gas facilities. SoCalGas needs time to take care of these prerequisites before scheduling the repair of non-hazardous leaks.

SoCalGas disagrees with CUE's belief that its leak repair policy, which calls for the immediate repair of hazardous leaks and a different repair schedule for non-hazardous leaks, is a risk to SoCalGas' customers or the public. For non-hazardous leaks, SoCalGas' procedures meet the established requirements for leak repairs, while also meeting Dig-Alert requirements, public notifications and work scheduling needs. Treating all riser leaks as Code 1, as CUE recommends, would achieve the opposite of risk reduction by failing to address hazardous leaks

[239] May 14, 2018, Opening Testimony of Don Kick, on behalf of the Coalition of California Utility Employees [CUE], Exhibit CUE (Kick) at 3-5.

first, and would divert SoCalGas' workforce from leaks that require immediate repair. SoCalGas believes that its existing leakage response policies achieve the company's safety and reliability goals, while addressing non-hazardous leaks in a timely manner and complying with all DOT requirements.

### 7. Disputed Cost – Field Support

**Table GOM-19[240]**
**Southern California Gas Company**
**Gas Distribution Field Support O&M Test Year 2019 Estimates**
**(Thousands of Constant 2016 Dollars)**

| | Position of Party | | Difference Between Party and SCG |
|---|---|---|---|
| | SCG | ORA | (ORA-SCG) |
| **Field O&M - Field Support** | | | |
| Base Forecast | 20,580 | 19,229 | (1,351) |
| Office Instructors | 105 | 105 | - |
| Field Operations Supervisors | 945 | 945 | - |
| Hydraulic Valve Maintenance | 5 | 5 | - |
| RAMP Confined Space | 20 | 20 | - |
| Fueling Our Future (FOF) | (586) | (586) | - |
| **Subtotal** | **21,069** | **19,718** | **(1,351)** |

Recorded to the Field Support workgroup are a variety of support services necessary to successfully complete daily Gas Distribution O&M activities.[241] The primary components are field supervision, clerical support, dispatch operations, training, safety meetings, materials support, and removal of abandoned mains.[242] The Field Support cost supports the safety and reliability of SoCalGas' system by providing field support, supervision, and required employee training and qualification.[243]

In developing the TY 2019 forecast, SoCalGas evaluated historical expenditures for 2012 through 2016. Given the multiple factors that influence this workgroup, SoCalGas determined

[240] While ORA states that its total forecast for Field Support is $19.821 million, *see* Ex. ORA-11 (Phan) at 34, the correct summation of ORA's base forecast, incremental additions, and credits is $19.718 million, as shown in this table. Please see Appendix A, Item #2 for a detailed review of corrections of ORA's numbers.
[241] Ex. SCG-04-R (Orozco-Mejia) at 62:27-28.
[242] *Id.* at 63:6-12.
[243] *Id.* at 65:8-10.

that a five-year (2012-2016) historical average forecast best reflects future base requirements for this workgroup. As discussed in Section III.B. above, the costs associated with Field Support mitigation actions in support of RAMP risks are embedded in the base forecast.[244] Added to this base are incremental work elements not reflected in the base forecast to adequately fund field support activities in TY 2019 as well as cost savings efficiencies identified as part of the FOF effort.

The figure below represents SoCalGas' total forecast for Field Support, as well as ORA's proposal for this area, which is discussed in the following section.

**Figure GOM-14**
**Southern California Gas Company**
**Field Support**
**(Thousands of Constant 2016 Dollars)**


### a. ORA

#### i. Base Forecast Argument

ORA disputes SoCalGas' use of the five-year (2012-2016) average to determine the base amount and asserts that the LRY methodology is more appropriate.[245] ORA recommends using

[244] *Id.* at 15, Table GOM-08.
[245] Ex. ORA-11 (Phan) at 35:9-10.

the two-year average of 2016 and 2017 recorded expenses as the base amount for its TY 2019 forecast, instead of the five-year (2012-2016) average used by SoCalGas. ORA's base forecast recommendation for TY 2019 of $19.229 million is $1.351 million lower than SoCalGas' base forecast of $20.580 million.[246] ORA's calculation using a two-year average of 2016 and 2017 recorded dollars does not provide sufficient funding in TY 2019 to cover the anticipated growth in this work category.

ORA's justifies its methodology by relying on a three-year (2014-2016) downward trend.[247] However, ORA does not recognize the need to fund the anticipated growth in work and associated expenses in this area for TY 2019. Field support activities are driven by the amount of field work to be completed, the need for contractor support, the complexity of jobs, the number of employees, training, incremental operations, compliance, and safety requirements that impact the Gas Distribution workforce.[248]

The five-year (2012-2016) average SoCalGas chose for its base forecast captures a longer time period than ORA's recommendation, which is a more accurate representation of the activities in this workgroup and would account for historical fluctuations. In a previous GRC proceeding, ORA stated that "data from as many years as possible should be used for a more reliable forecast."[249] Embedded within the base forecast are anticipated upward pressures, not identified as individual incremental increases, as described below.

As discussed in my revised direct testimony, SoCalGas is experiencing an increase in regulatory pressures, such as additional CPUC audits, GO 112-F, and SB 661, which result in more record-keeping and documentation activities.[250] With the projected incremental work in Gas Distribution Field O&M categories, there is an expected increase in work activities within this workgroup, such as clerical, dispatch, training, and safety meetings.

The incremental work elements, identified in the Field O&M section of my revised direct testimony, will require additional supporting employees.[251] Furthermore, Gas Distribution has been experiencing a higher turnover of experienced employees leaving and new employees joining the organization. As new employees are hired to cover incremental work or to replace

[246] *Id.* at 35:4-5.
[247] *Id.* at 35:8.
[248] Ex. SCG-04-R (Orozco-Mejia) at 65:14-17.
[249] A.14-11-003/-004 (cons.), Ex. ORA-10 (Phan) at 8:9-10.
[250] Ex. SCG-04-R (Orozco-Mejia) at 65:18-22.
[251] *Id*. at 30-72.

employees leaving the company or moving to other positions, the need for training, including Operator Qualification, is expected to increase. Additional or new field employees also drive the miscellaneous expenditures, such as expenses associated with traveling to the training facility and communication costs needed for their assigned field Mobile Data Terminal (MDT).

Likewise, the increase in Field O&M work identified in my revised direct testimony will require an increase in other resources such as clerical workers, who are tasked with processing work documentation and reconciliation, as well as additional dispatchers, who are tasked with providing ongoing support to field employees.[252]

As noted in Section III.B. above, ORA does not discuss SoCalGas' RAMP analysis for Gas Distribution and does not offer testimony regarding the funding of these specific activities from a risk reduction perspective. ORA ignores SoCalGas' base forecast methodology, which includes RAMP embedded base costs to prevent double counting of upward pressures.[253] ORA's recommendation to reduce SoCalGas' forecast, fails to recognize that the Field Support forecast helps to reduce the risk of asset failure and enhance public safety. Thus, ORA effectively ignores the risk-informed GRC process.

The Commission should reject ORA's proposed forecast because it is incomplete in its analysis and does not provide for the necessary funding for this support activity and should adopt the SoCalGas five-year average (2012-2016) for its base forecast for TY 2019.

**ii. Office Instructors**

ORA does not dispute SoCalGas' incremental forecast for Office Instructors.[254]

**iii. Field Operations Supervisors**

ORA does not dispute SoCalGas' incremental forecast for Field Operations Supervisors.[255]

**iv. Hydraulic Valve Maintenance**

ORA does not dispute SoCalGas' incremental forecast for Hydraulic Valve Maintenance.[256]

[252] *Id.* at 63:26-64:8.
[253] *Id.* at 15, Table GOM-08.
[254] Ex. ORA-11 (Phan) at 35:24.
[255] *Id.*
[256] *Id.*

### v. RAMP – Risk ID 14/ SoCalGas Employee, Contractor, Customer, and Public Safety - Confined Space Air Monitoring System for Field Personnel

ORA does not dispute SoCalGas' incremental forecast for RAMP – Risk ID 14/ SoCalGas Employee, Contractor, Customer, and Public Safety - Confined Space Air Monitoring System for Field Personnel.[257]

### vi. Fueling Our Future

ORA does not dispute SoCalGas' cost savings forecast for FOF.[258]

## 8. Disputed Cost – Tools, Fittings, and Materials

**Table GOM-20**
**Southern California Gas Company**
**Gas Distribution Tools, Fittings, and Materials O&M Test Year 2019 Estimates**
**(Thousands of Constant 2016 Dollars)**

| | Position of Party | | | Difference Between Party and SCG | |
|---|---|---|---|---|---|
| | SCG | ORA | CUE | (ORA-SCG) | (CUE-SCG) |
| **Field O&M- Tools, Fittings, and Materials** | | | | | |
| Base Forecast | 9,421 | 8,519 | 9,421 | (902) | - |
| Calibrated Tools | 500 | 500 | 500 | - | - |
| OMD Cages | 75 | 75 | 75 | - | - |
| MSA Maintenance Activities | 85 | 85 | 95 | - | 10 |
| Meter Guard Activities | 130 | - | 130 | (130) | - |
| OMD Maintenance | 96 | 96 | 96 | - | - |
| **Subtotal** | **10,307** | **9,275** | **10,317** | **(1,032)** | **10** |

Recorded to this workgroup is the purchase of small tools, small pipe fittings, miscellaneous pipeline materials, and miscellaneous installation materials used during construction and maintenance activities and those held in inventory, as vehicle truck stock and rental and laundering of uniforms.[259]

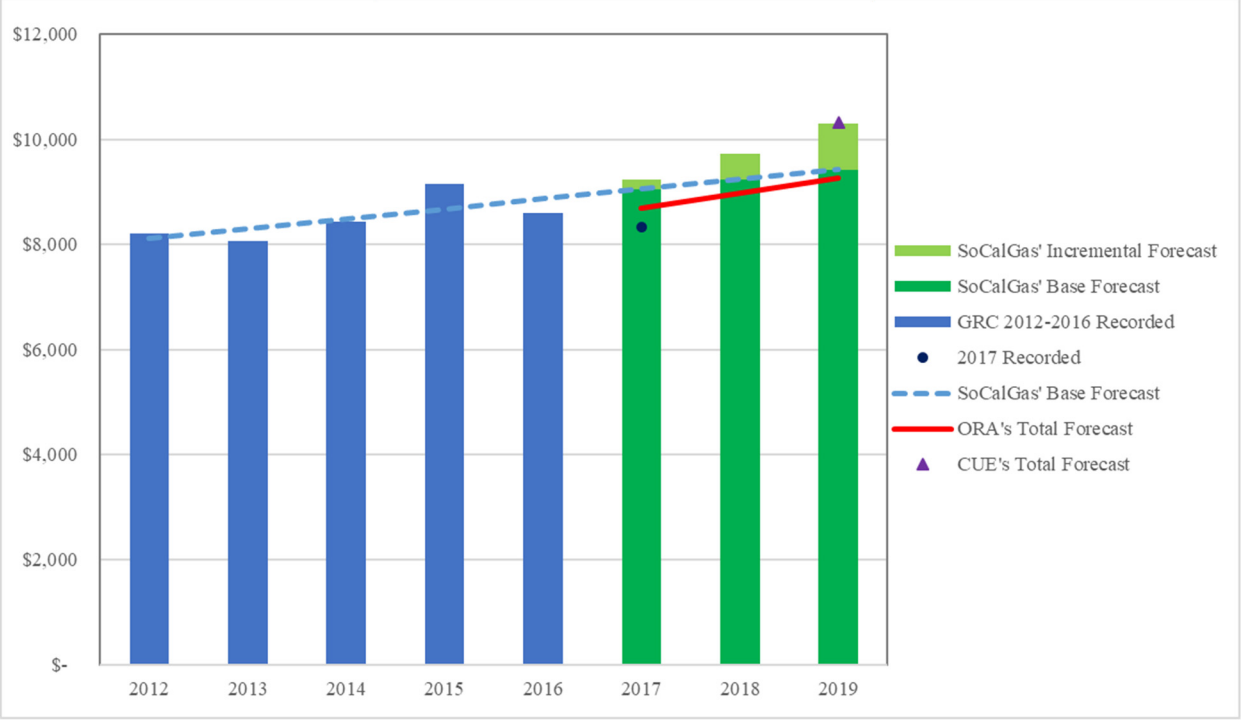
The rate of consumption of these materials is highly influenced by construction and maintenance activities in other workgroups, as described in my revised direct testimony.[260] As the level of work and workforce increases, so does the need for additional tools, fittings,

[257] *Id.*
[258] *Id.* at 36:3.
[259] Ex. SCG-04-R (Orozco-Mejia) at 69:22-24.
[260] *Id.* at 70:12-16.

materials and uniforms. This cost also supports the safety and reliability of SoCalGas' system by providing employees the tools and materials required to safely perform field functions.

Given the requirement to support an overall increase in construction and maintenance activities, regulatory pressures, and the Gas Distribution workforce, as well as an assessment of historical expense in this workgroup, SoCalGas used a five-year (2012-2016) historical linear trend to forecast future needs for Tools, Fittings and Materials. This five-year trend base forecast results in a $0.820 million increase above the 2016 adjusted recorded base in TY 2019. Added to this base are incremental work elements not reflected in the base forecast to adequately fund Tools, Fittings, and Materials in TY 2019. The figure below represents SoCalGas' total forecast for Tools, Fittings, and Materials, as well as ORA's and CUE's proposal for this area, which are discussed in the following sections.

**Figure GOM-15**
**Southern California Gas Company**
**Tools, Fittings, and Materials**
**(Thousands of Constant 2016 Dollars)**




### a. ORA

#### i. Base Forecast

ORA disputes SoCalGas' use of the five-year (2012-2016) linear trend to determine the TY 2019 base amount and asserts that the five-year (2013-2017) average of recorded expenses is

more appropriate, due to fluctuations from year to year.[261] ORA's base forecast recommendation for TY 2019 of $8.519 million is $0.902 million lower than SoCalGas' forecast of $9.421 million. ORA's recommendation does not provide sufficient funding in TY 2019 to cover the anticipated growth in Tools, Fittings, and Materials in the TY 2019.

Trends indicate a general movement along a directional line that does not specifically require an exact rigid placement for each and every data point. Whether a particular year's data point is higher or lower than the trend line, the purpose of a trend is to capture the general movement of the activity or cost. As seen in the figure above, the historical data shows a general upward trend. Therefore, SoCalGas' approach to use a five-year (2012-2016) trend to forecast its TY 2019 is appropriate and should be adopted by the Commission because the historical data and future drivers support this methodology. The justification to use a linear trend is further supported by the upward pressures SoCalGas is experiencing in this area, as discussed below.

As described in my revised direct testimony, the increase in construction and maintenance activities identified in other workgroups will drive the requirements for this cost category upward.[262] Increases in the level of work and workforce directly correlate with the increasing need for additional tools, fittings, materials, and uniforms. SoCalGas provided data in data request ORA-SCG-054-DAO, Question 3 showing positive economic conditions that have led to increases in construction and maintenance activities.[263]

In addition, regulatory requirements, such as those implemented in the revised GO 112-F, have also increased the level of required work in various work categories (i.e. accelerated leak survey cycles), increasing the need for workforce and consequently increasing the need for tools, materials, fittings, and uniforms. This activity supports the safety and reliability of SoCalGas' system by providing employees the tools and materials required to safely perform field functions.

ORA's forecast methodology is insufficient because it fails to meet the future needs for this cost category. The Commission should reject ORA's proposed forecast and adopt SoCalGas' five-year (2012-2016) linear trend for its base forecast for TY 2019.

[261] Ex. ORA-11 (Phan) at 37:2-5.
[262] Ex. SCG-04-R (Orozco-Mejia) at 70:18-25.
[263] ORA-SCG-054-DAO, Question 3, attached as Appendix B.

### ii. Calibrated Tools

ORA does not dispute SoCalGas' incremental forecast for Calibrated Tools.[264]

### iii. OMD Cages

ORA does not dispute SoCalGas' incremental forecast for OMD Cages.[265]

### iv. MSA Maintenance Activities

ORA does not dispute SoCalGas' incremental forecast for MSA Maintenance.[266]

### v. Meter Guard Activities

ORA disputes SoCalGas' forecast for meter guard replacement materials by recommending zero funding in this area, a reduction of $0.130 million in TY 2019. This section covers the non-labor cost for the incremental meter guard replacement project, while the labor costs are in the Service Maintenance section discussed earlier in this rebuttal. ORA states that since it disputed the labor portion of the meter guards replacement request, it is justified in disallowing the non-labor portion.[267]

The incremental non-labor cost support a safety and compliance activity.[268] Funding for meter guard replacement is imperative to maintain a safeguard against potentially hazardous environments to the MSA or to the public. Meter guards protect gas distribution assets and support their function, safety, and longevity. Over time, these meter guards may get damaged or deteriorate, requiring repair or replacement.

Please refer to the Service Maintenance Section, Meter Guard Activities, under the ORA rebuttal for SoCalGas position on ORA's proposal.

Since ORA's recommendation is based on a misunderstanding of SoCalGas' forecast, the Commission should reject ORA's forecast for this incremental activity and adopt SoCalGas' TY 2019 forecast of $0.130 million for incremental Meter Guard replacement materials.

### vi. OMD Maintenance

ORA does not dispute SoCalGas' incremental forecast for OMD Maintenance.[269]

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[264] *See* Ex. ORA-11 (Phan) at 37:25-27.
[265] *See id.*
[266] *See id.*
[267] *Id.* at 37:20-24.
[268] *See* 49 C.F.R. § 192.353(a).
[269] *See* Ex. ORA-11 (Phan) at 37:25-27.

### b. CUE

#### i. MSA Maintenance Activities

CUE proposes an incremental $10,000 in TY 2019 to address the incremental work related to MSA maintenance orders.[270] This section covers the non-labor portion of the request.[271] Please refer to the CUE rebuttal section under the Service Maintenance section for SoCalGas position on CUE's proposal. SoCalGas' proposed volume of incremental work in TY 2019 is aimed at reducing the current inventory, therefore the Commission should accept SoCalGas forecast for TY 2019.

## 9. Disputed Cost – Operations and Management

**Table GOM-21**
**Southern California Gas Company**
**Gas Distribution Operations and Management O&M Test Year 2019 Estimates**
**(Thousands of Constant 2016 Dollars)**

| | Position of Party | | Difference Between Party and SCG |
|---|---|---|---|
| | SCG | ORA | (ORA-SCG) |
| **Operations and Management** | | | |
| Base Forecast | 6,557 | 5,419 | (1,138) |
| Project Advisors | 298 | - | (298) |
| Project Manager | 101 | - | (101) |
| Director of Workforce Planning | 185 | - | (185) |
| Continuous Improvement | 125 | - | (125) |
| Resumption of Routine Operations | 112 | - | (112) |
| **Subtotal** | **7,378** | **5,419** | **(1,959)** |

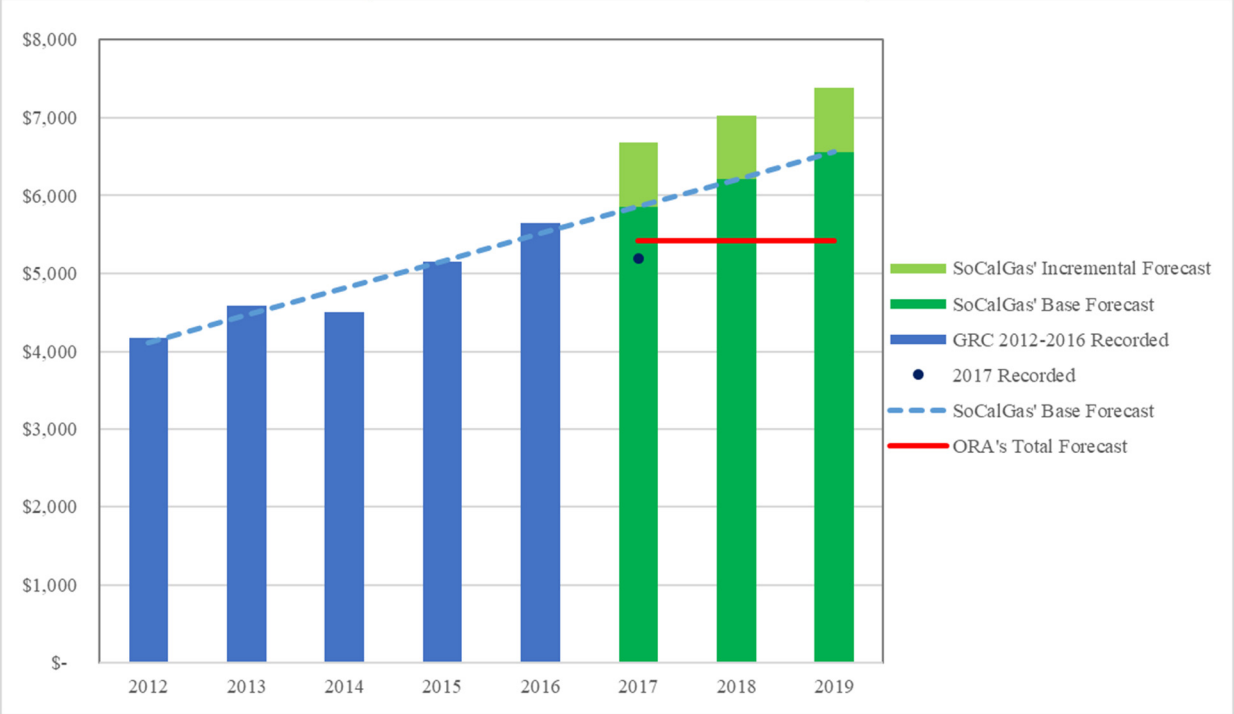
Operations and Management activities include operations leadership, field management, operations support, and field technical skills training, all of which are necessary for SoCalGas to provide customers with safe and reliable service and are critical components of managing the

[270] The total incremental amount CUE proposed for this activity across Service Maintenance and Tools, Fittings, and Materials is $179,550. CUE (Marcus) at 34 n.223.
[271] CUE (Marcus) at 34:15-16 & n.223.

integrity of the pipeline system to help prevent and reduce risks.[272] In general, operations leadership, field management, and operations support levels increase as levels of work and workforce increase and as new programs, processes, policies, and technologies are implemented and regulatory or compliance requirements change.[273]

A review of the historical costs in this work category shows a general upward trend. The trend is expected to continue as the levels of field work increase, as forecasted in the Field O&M areas discussed above. Therefore, SoCalGas used the five-year (2012-2016) linear trend as the base forecast for the level of leadership, management, support, and associated non-labor costs to maintain ongoing operations. Added to this base are incremental work elements not reflected in the base forecast to adequately fund operations and management activities in TY 2019. The figure below represents SoCalGas' total forecast for operations and management, as well as ORA's proposal for this area, which is discussed in the following section.

**Figure GOM-16**
**Southern California Gas Company**
**Operations and Management**
**(Thousands of Constant 2016 Dollars)**




[272] Ex. SCG-04-R (Orozco-Mejia) at 78:4-26.
[273] *Id.* at 78:29-31 to 79:1.

### a. ORA

#### i. Base Forecast

ORA disputes SoCalGas' use of the five-year linear trending methodology to determine its base forecast, and recommends a LRY average of 2016 and 2017 recorded expenses as the base amount for its TY 2019 forecast.[274] ORA claims that the LRY methodology is appropriate because the three-year (2014-2016) recorded expenses show an upward trend.[275] ORA's recommendation is $1.138 million lower than SoCalGas' TY 2019 base forecast of $6.557 million. This forecast is represented in the figure above, along with the historical spending (2012-2016) and SoCalGas' forecast.

Moreover, as discussed in Section III above, ORA's reliance on a LRY methodology is not required nor justified based on the figure above, showing historical data in an upward trend. Although ORA acknowledges this upward trend, its LRY methodology of averaging 2016 and 2017 recorded data does not recognize the need to fund the anticipated growth in work and associated expenses in TY 2019. ORA's recommended base forecast suggests growth will stagnate below 2016 recorded levels, which is not supported by the historical information or the drivers of this activity.

ORA's forecast methodology is inadequate because it fails to recognize the need to fund the anticipated base growth in the level of work, training, and management of personnel in this work category. As the levels of work increase, the workforce will also increase, requiring more support, driving costs up in the area of operations and management, as has been stated in my revised direct testimony and reiterated throughout this rebuttal.[276] The resources in this work category are critical in maintaining communication, synchronizing field, office and support resources, limiting proficiency gaps through training, mentoring and coaching, and ensuring timely completion of operations, maintenance, safety and compliance work.

In addition to the increasing level of field work, field construction methods are undergoing technological changes, such as new leak survey technology, new residual gas extraction technology and smart devices. Operations and management personnel help to integrate these processes into the field and adjust construction and maintenance methods to

[274] Ex. ORA-11 (Phan) at 40:12-14.
[275] *Id.* at 40:14-18.
[276] Ex. SCG-04-R (Orozco-Mejia) at 78:29-31 to 79:1.

accommodate these changes. Management and supervisory positions enable efficient planning, communication and safe completion of Gas Distribution activities and projects, and effectively handle the training, organization, and standardization of new technology in the field.

Additionally, SoCalGas anticipates increased employee movement from retirements and internal job transfers, which require knowledge transfer, skill development, and adequate training, mentoring and coaching to maintain employee proficiency and safety, in order to remain compliant with existing and new regulatory requirements and to safeguard the integrity of a growing and aging pipeline system. As positions get filled through promotion, retirement, or employee movement to lateral positions or retire, management leadership is needed to ease the transition and maintain the necessary oversight and training.

SoCalGas forecasted that a linear trend would cover the costs associated with the growth and support activities discussed above, and therefore, did not add an incremental increase for this work in its base forecast. ORA's selection of the two-year average of the most recent recorded years (2016-2017) as the base forecast is insufficient to fund the Operations and Management work category because it omits future growth expectations, like those discussed above. Furthermore, the operations and management activities are mitigation actions for key RAMP risks discussed above in Section III.B.[277] Given these reasons, the Commission should reject ORA's base forecast reduction and adopt the five-year linear trend (2012-2016) base forecast selected by SoCalGas, which produces a funding requirement of $6.557 million in TY 2019.

**ii. Incremental Elements**

In addition to recommending a reduction to SoCalGas' base forecast for Operations and Management, ORA also recommends zero funding for the incremental employees that SoCalGas forecasted, stating that salaries for those employees were captured in the 2017 recorded spending.[278] While ORA is correct that the 2017 labor would have included a partial year of spending for these new employees, by averaging 2016 with 2017, ORA is recommending a TY 2019 labor forecast that is $0.301 million less than the 2017 level.[279]

Each of these forecasts are discussed in more detail in the following sections.

[277] *See id.* at 15, Table GOM-08.
[278] Ex. ORA-11 (Phan) 40-42.
[279] *See* SCG-04-WP (Orozco-Mejia) at 129 (2016 Labor: $2.126 million); *see also* 2017 Recorded Operating Costs- SCG provided to ORA by email on March 16, 2018, from Chuck Manzuk to Clayton Tan and Truman Burns (2017 Labor: $2.728 million).

### a) Project Advisors and Project Manager – Leak Repairs

ORA recommends zero funding for SoCalGas' request of $0.399 million for a Project Manager and three Project Advisors hired to manage a focused leak repair effort, based on its belief that these positions are not new.[280] However, ORA is mistaken, as these positions are new to the GRC TY 2019 period and were not in place in the Base Year 2016, which is the reference year used by SoCalGas to forecast TY 2019. ORA's recommendation does not provide sufficient funding for these crucial positions to address the leak repair effort in TY 2019.

In 2017, SoCalGas created a team to manage and reduce the inventory of existing and new non-hazardous leaks. It is expected that this team will continue working into the TY 2019 to manage incremental leak mitigation efforts as the amount of leak survey rises as well as the time to repair leaks increases, due to changes in the associated equipment and standards. Given the anticipated increase in this leak repair work associated with increased leak surveys, SoCalGas, as a prudent operator, is increasing personnel to manage it.

The project advisor positions are responsible for implementing leak analysis and process strategy. They will schedule work and coordinate with field crews and contractors to verify that repairs and service replacements are completed on time. They will also develop reports to track cost, set up performance metrics, manage contractors, and coordinate material and fleet needs.

The project manager position will communicate with key stakeholders, provide work direction to the project advisors, implement best practices, negotiate contractual agreements, and work with the finance team to develop key metrics.[281]

ORA claims that SoCalGas' existing funding is adequate for the number of employees it requests in 2019.[282] SoCalGas does not agree with this assertion, as these positions are incremental for a new effort and were not included in the Base Year 2016. Furthermore, ORA references statements from SoCalGas' response to an ORA data request stating that "The work activities of the Workforce Planning & Resource Management [SCG requests the addition of 1 FTE for 2019] are not newly created for this GRC cycle."[283] This statement was made in

[280] Ex. ORA-11 (Phan) 41:8-12.
[281] ORA-SCG-085-DAO, Question 1.c, attached as Appendix B.
[282] Ex. ORA-11 (Phan) at 41:11-12.
[283] *Id.* at 41:13-15 (brackets in original).

response to ORA's question, "Are the work activities of the Workforce Panning & Resource Management newly created for this GRC cycle?"[284] In fact, the work activity of mitigating leakage is not new. What is new, is the incremental resources to more aggressively address the existing leak inventory and projected increase in leaks detected.

ORA also reference another statement from the same data request stating:

> [b]etween 2012-2016 these activities were managed by two separate geographic organizations . . . and were managed independently. . . . In 2017 these functions . . . were consolidated in a centralized organization. . . .[285]

SoCalGas made this statement in response to ORA's question, "[how] has SCG managed the work activities of Workforce Planning & Resource Management from 2012-2017?"[286] In fact, the leakage mitigation activity has been managed by the Operations Regions in separate geographic areas and will continue to manage the historical base level of work. What is new in this request is that, as stated previously, these incremental positions are tasked with managing an incremental, focused effort to manage incremental leak repairs forecasted into the TY 2019.

ORA's recommendation misunderstands the circumstances regarding SoCalGas' request and assumes that the existing funding will cover these positions in TY 2019. These positions are new and are needed in order to address the existing inventory of non-hazardous leaks as well as the anticipated incremental leaks that will add to this inventory. For the above stated reasons, the Commission should reject ORA's recommendation and adopt SoCalGas' forecast.

**b) Director of Workforce Planning & Resource Management**

ORA recommends zero funding for SoCalGas' request of $0.185 million for a new Director position responsible for the Workforce Planning and Resource Management department, based on its belief that this position is not new.[287] However, ORA is mistaken. In fact, this position is new to the GRC TY 2019 period and was not in place in the Base Year 2016, which is the reference year used to forecast TY 2019.

In 2017, SoCalGas added the Director of Workforce Planning & Resource Management, who is responsible for directing and providing strategy, vision, and leadership for an

[284] ORA-SCG-085-DAO, Question 2.a, attached as Appendix B.
[285] Ex. ORA-11 (Phan) at 41:15-18 (citing ORA-SCG-085-DAO, Question 2.a).
[286] ORA-SCG-085-DAO, Question 2.a, attached as Appendix B.
[287] Ex. ORA-11 (Phan) at 41:8-12.

organization accountable for the planning, scheduling, resource management, engineering, design, and special projects for the entire SoCalGas distribution pipeline infrastructure. The Director provides strategic direction and leadership in optimizing resource management across all distribution functions including pipeline maintenance, construction, and special project work across company and contractor crews. With the ongoing increasing activities, this Director position will help develop and implement strategies that align and support Gas Distribution goals.

ORA uses the arguments discussed in the previous section (IV.10.a.ii.a), for its assertion that the work is not new and that the funding for this position is already included in SoCalGas' existing funding.[288] Although the activities in Workforce Planning and Resource Management organization are not new, the Director position is new and necessary to provide centralized leadership and direction, as new technology and work process are implemented and as work and regulatory pressures continue to increase.[289]

ORA's recommendation misunderstands the circumstances regarding SoCalGas request and assumes that the existing funding will cover this position in TY 2019. This new position has provided a central view of distribution resource and workforce management, including distribution projects, while allowing the former organizations to manage the day-to-day field support and maintenance activities.[290] For the above stated reasons, the Commission should reject ORA's recommendation and adopt SoCalGas' forecast.

**c) Continuous Improvement Operations Manager**

ORA recommends zero funding for SoCalGas' request of $0.125 million for a new Continuous Improvement Operations Manager, based on its belief that this position is not new.[291] However, ORA is mistaken. In fact, this position is new to the GRC TY 2019 period and was not in place in the Base Year 2016, which is the reference year used to forecast TY 2019.

SoCalGas is continuously looking for ways to improve the efficiency and effectiveness of Gas Distribution processes. The addition of a Continuous Improvement Operations Manager provides the focus to review work processes to determine efficiency, safety and compliance

[288] *Id.* at 41:11-42:6.
[289] ORA-SCG-053-DAO, Question 3, attached as Appendix B.
[290] ORA-SCG-085-DAO, Question 2, attached as Appendix B.
[291] Ex. ORA-11 (Phan) at 41:11-42:6.

improvement opportunities. This position identifies and implements opportunities to reduce or avoid operating cost through efficiency initiatives and improvements that strengthen business processes and internal controls. For example, this individual is responsible for overseeing the implementation of the FOF ideas discussed throughout my revised direct testimony as well as leading some of the FOF projects.[292]

In fact, ORA agreed with all the FOF cost benefit reductions proposed by SoCalGas, which results in O&M cost saving of $4.742 million in the TY 2019.[293] This position is necessary to achieve these cost savings.

ORA's recommendation misunderstands the circumstances regarding SoCalGas' request and assumes that the existing funding will cover this position in TY 2019. This position is critical to achieving the FOF savings proposed by SoCalGas and accepted by ORA. For the above stated reasons, the Commission should reject ORA's recommendation and adopt SoCalGas' forecast for TY 2019.

**d) Resumption of Routine Operations**

ORA disputes the funding requested for this element, based on its belief that the existing funding is adequate to cover this cost.[294]

SoCalGas requested $0.112 million above the base year level to account for resources that were not part of the operations organization in 2016. Some management employees' time in this workgroup provided customer support during the Aliso Canyon incident, which required a reprioritization of company resources. In order to adequately resume routine operations and management activities, SoCalGas requests $0.112 million over the base forecast for TY 2019.

As discussed in the response to data request ORA-SCG-053-DAO, Question 5, these costs were excluded from the GRC filing and were not part of the Base Year 2016 expense.[295] Therefore, as these employees returned to their regular jobs within Gas Distribution, the funding in the Base Year is insufficient to cover future requirements.

ORA's recommendation misunderstands the circumstances regarding SoCalGas' request and mistakenly assumes that the existing funding will cover these costs in TY 2019. For the

[292] Ex. SCG-04-R (Orozco-Mejia) at 80:7-16.
[293] Ex. ORA-11 (Phan) at 16:14-15; 19:2; 21:10-12; 27:15-16; 33:25-26; 36:2-3; 38:10-11; 42-43.
[294] *Id.* at 41:8-10.
[295] ORA-SCG-053-DAO, Question 5, attached as Appendix B.

above stated reasons, the Commission should reject ORA's recommendation and adopt SoCalGas' forecast.

**b. CFC**

**i. Project Advisors and Project Manager – Leak Repairs**

CFC agrees with SoCalGas' forecast to incorporate the incremental leak management team for operations management to manage and reduce the inventory of existing and new non-hazardous leaks. CFC recommends that if the leak management team adds value to increasing the efficiency of leak analysis and process strategy for Gas Distribution, the operations management should acquire these positions.[296]

CFC also recommends that these incremental positions are to inform DIMP of the data regarding cost tracking and performance metrics for DIMP capital. CFC is mistaken in this statement, as the incremental leak management team will not be advising the DIMP strategy; however, SoCalGas Gas Distribution agrees with CFC that these positions are needed to develop reports, cost tracking, and performance metrics.[297] Please refer to Maria Martinez' rebuttal testimony (Exhibit SCG-214) for an explanation of why these Gas Distribution advisors will not have a role in determining the pace of asset replacement for DIMP's wholesale replacement programs.

**B. Shared Services O&M**

**Table GOM-22**
**Southern California Gas Company**
**Gas Distribution Shared Services O&M Test Year 2019 Estimates**
**(Thousands of Constant 2016 Dollars)**

| **SHARED O&M** - Constant 2016 ($000) | | | |
|---|---|---|---|
| | **Base Year 2016** | **Test Year 2019** | **Change** |
| SCG | 689 | 275 | (414) |
| ORA | 689 | 275 | (414) |

ORA does not oppose SoCalGas' Test Year 2019 Shared Services O&M forecast for the amount of $0.275 million.[298]

[296] Ex. CFC-03-R (Roberts) at 7 (Item 11).
[297] Ex. SCG-04-R (Orozco-Mejia) at 79:12-26.
[298] Ex. ORA-11 (Phan) at 2:10-11.

TURN, CUE, and CFC did not provide any testimony on the shared services forecast.

## V. REBUTTAL TO PARTIES' CAPITAL PROPOSALS

**Table GOM-23**
**Southern California Gas Company**
**Gas Distribution Capital Estimates**
**(Thousands of Constant 2016 Dollars)**

| **TOTAL CAPITAL**[299] - Constant 2016 ($000) | | | | | |
|---|---|---|---|---|---|
| | **2017** | **2018** | **2019** | **Total** | **Variance** |
| SOCALGAS | 278,473 | 324,801 | 347,842 | 951,116 | -- |
| ORA | 279,210 | 285,885 | 298,056 | 863,151 | (87,965) |
| CUE[300] | 278,473 | 324,801 | 368,357 | 971,631 | 20,515 |

My revised direct testimony fully supports Gas Distribution Capital Expenditures in 2017, 2018, and 2019 of $278.473 million, $324.801 million, and $347.842 million, respectively.[301] SoCalGas developed this forecast based on a comprehensive review of historical spending (2012-2016) with consideration of new and/or incremental changes in activities that impact future revenue requirements. SoCalGas' forecasts also include RAMP costs to mitigate Gas Distribution risks mentioned in Section II's introduction.

The following sections respond to the arguments presented by ORA and CUE and confirm that SoCalGas' projections are substantially supported, reasonable, and should ultimately be adopted by the Commission in their entirety. Each section provides an introductory table showing the expenditure amounts proposed by each of the parties in each of the years from 2017 to 2019.

ORA proposes reductions to eleven of the sixteen capital workgroups, resulting in an overall decrease of $87.965 million or about 9% of SoCalGas' total request. ORA agreed with SoCalGas' 2018 and 2019 forecasts, and only recommended that the 2017 forecast be replaced with the 2017 actual spending for the following areas: Pressure Betterments, Supply Line

[299] For the purpose of these comparison tables, for areas that were not discussed by the parties (e.g. TURN, CUE, CFC), it is assumed that the parties accepted SoCalGas' forecasts.
[300] In its testimony, CUE makes specific recommendations for Supply Line Replacements, Service Line Replacements, and Regulator Stations categories only.
[301] Ex. SCG-04-R (Orozco-Mejia) at 92:7.

Replacements, Main Replacements, Other Distribution Capital Projects, Measurement and Regulation Devices.[302]

CUE proposes increases to Supply Lines, Service Replacements, and Regulator Stations, resulting in an overall increase of $20.515 million.[303] CUE did not provide specific forecasts for the other capital workgroups; however, it stated it was not proposing any changes to SoCalGas' 2017 or 2018 capital forecasts.[304]

Neither TURN nor CFC provided testimony on Gas Distribution's capital forecast.

[302] Ex. ORA-11 (Phan) at 52:2-4; 53:13-16; 54:21-23; 71:11-15; 76:7-14.
[303] *See generally* June 18, 2018, Rebuttal Testimony on Pipeline Integrity for Transmission and Distribution, Exhibit SCG-214 (Maria Martinez) (Rebuttal to CUE's incremental main replacement recommendations).
[304] CUE (Marcus) at 4:2-3.

**Table GOM-24**
**Southern California Gas Company**
**Gas Distribution 2017 Capital Estimates**
**(Thousands of Constant 2016 Dollars)**

| | Gas Distribution Capital Estimates (Thousands of Constant 2016 Dollars) Position of Party | | | Difference Between Party and SCG | |
|---|---|---|---|---|---|
| | SCG | ORA | CUE | ORA | CUE |
| **2017 Capital** | | | | | |
| A. New Business | 36,632 | 43,342 | 36,632 | 6,710 | - |
| B. Pressure Betterment | 23,088 | 24,241 | 23,088 | 1,153 | - |
| C. Supply Line Replacement | 4,209 | 1,833 | 4,209 | (2,376) | - |
| D. Main Replacements | 33,711 | 35,738 | 33,711 | 2,027 | - |
| E. Service Replacements | 28,538 | 35,205 | 28,538 | 6,667 | - |
| F. Main & Service Abandonments | 9,256 | 9,312 | 9,256 | 56 | - |
| G. Regulator Stations | 8,636 | 6,427 | 8,636 | (2,209) | - |
| H. Cathodic Protection | 6,320 | 8,264 | 6,320 | 1,944 | - |
| I. Pipeline Relocations- Freeway | 7,837 | 1,402 | 7,837 | (6,435) | - |
| J. Pipeline Relocations - Franchise | 17,894 | 13,200 | 17,894 | (4,694) | - |
| K. Other Distribution Capital Projects and Meter Guards | 3,656 | 5,704 | 3,656 | 2,048 | - |
| L. Measurement and Regulation Devices | 22,266 | 18,370 | 22,266 | (3,896) | - |
| M. Capital Tools | 14,386 | 9,510 | 14,386 | (4,876) | - |
| N. Field Capital Support | 61,317 | 65,384 | 61,317 | 4,067 | - |
| O. Remote Meter Reading | 727 | 1,278 | 727 | 551 | - |
| **Total 2017 Capital** | **278,473** | **279,210** | **278,473** | **737** | - |

**Table GOM-25**
**Southern California Gas Company**
**Gas Distribution 2018 Capital Estimates**
**(Thousands of Constant 2016 Dollars)**

| | Gas Distribution Capital Estimates (Thousands of Constant 2016 Dollars) Position of Party | | | Difference Between Party and SCG | |
|---|---|---|---|---|---|
| | **SCG** | **ORA** | **CUE** | **ORA** | **CUE** |
| **2018 Capital** | | | | | |
| A. New Business | 45,313 | 42,824 | 45,313 | (2,489) | - |
| B. Pressure Betterment | 23,088 | 23,088 | 23,088 | - | - |
| C. Supply Line Replacement | 4,209 | 4,209 | 4,209 | - | - |
| D. Main Replacements | 33,711 | 33,711 | 33,711 | - | - |
| E. Service Replacements | 31,470 | 31,470 | 31,470 | - | - |
| F. Main & Service Abandonments | 10,522 | 8,988 | 10,522 | (1,534) | - |
| G. Regulator Stations | 14,636 | 7,531 | 14,636 | (7,105) | - |
| H. Cathodic Protection | 8,434 | 7,859 | 8,434 | (575) | - |
| I. Pipeline Relocations- Freeway | 7,837 | 3,745 | 7,837 | (4,092) | - |
| J. Pipeline Relocations - Franchise | 17,894 | 16,891 | 17,894 | (1,003) | - |
| K. Other Distribution Capital Projects and Meter Guards | 11,596 | 3,297 | 11,596 | (8,299) | - |
| L. Measurement and Regulation Devices | 29,547 | 29,547 | 29,547 | - | - |
| M. Capital Tools | 14,220 | 10,688 | 14,220 | (3,532) | - |
| N. Field Capital Support | 70,292 | 62,037 | 70,292 | (8,255) | - |
| O. Remote Meter Reading | 2,032 | - | 2,032 | (2,032) | - |
| **Total 2018 Capital** | **324,801** | **285,885** | **324,801** | **(38,916)** | - |

**Table GOM-26**
**Southern California Gas Company**
**Gas Distribution 2019 Capital Estimates**
**(Thousands of Constant 2016 Dollars)**

| | Position of Party | | | Difference Between Party and SCG | |
|---|---|---|---|---|---|
| | SCG | ORA | CUE | ORA | CUE |
| **2019 Capital** | | | | | |
| A. New Business | 50,393 | 47,904 | 50,393 | (2,489) | - |
| B. Pressure Betterment | 23,088 | 23,088 | 23,088 | - | - |
| C. Supply Line Replacement | 4,209 | 4,209 | 10,145 | - | 5,936 |
| D. Main Replacements | 33,711 | 33,711 | 33,711 | - | - |
| E. Service Replacements | 34,403 | 30,760 | 35,182 | (3,643) | 779 |
| F. Main & Service Abandonments | 11,787 | 8,988 | 11,787 | (2,799) | - |
| G. Regulator Stations | 19,436 | 7,531 | 33,236 | (11,905) | 13,800 |
| H. Cathodic Protection | 9,511 | 8,322 | 9,511 | (1,189) | - |
| I. Pipeline Relocations- Freeway | 7,837 | 3,745 | 7,837 | (4,092) | - |
| J. Pipeline Relocations - Franchise | 17,894 | 16,891 | 17,894 | (1,003) | - |
| K. Other Distribution Capital Projects and Meter Guards | 11,596 | 3,297 | 11,596 | (8,299) | - |
| L. Measurement and Regulation Devices | 37,037 | 37,037 | 37,037 | - | - |
| M. Capital Tools | 12,322 | 9,588 | 12,322 | (2,734) | - |
| N. Field Capital Support | 74,618 | 62,985 | 74,618 | (11,633) | - |
| O. Remote Meter Reading | - | - | - | - | - |
| **Total 2019 Capital** | **347,842** | **298,056** | **368,357** | **(49,786)** | **20,515** |

## A. New Business

**Table GOM-27[305]**
**Southern California Gas Company**
**Gas Distribution New Business Capital Estimates**
**(Thousands of Constant 2016 Dollars)**

| | Position of Party | | |
|---|---|---|---|
| | ***2017*** | ***2018*** | ***2019*** |
| SCG Base | 36,632 | 45,313 | 48,922 |
| Incremental - AMI | - | - | 1,471 |
| **SCG** | 36,632 | 45,313 | 50,393 |
| ORA Base | 43,342 | 42,824 | 46,433 |
| Incremental - AMI | - | - | 1,471 |
| **ORA** | 43,342 | 42,824 | 47,904 |
| ORA - SCG | 6,710 | (2,489) | (2,489) |

The New Business forecasted capital expenditures support the Company's obligation to serve the growing customer base, thus mitigating the risk of reduced service reliability.[306] This includes installations of gas mains and services, meter set assemblies, and associated regulator stations necessary to provide service to the customer.[307] This work category provides for changes and additions to the existing Gas Distribution system to connect new residential, commercial, and industrial customers.[308]

The new business forecast is based on the following components: (a) New Business Construction, (b) Advanced Metering Infrastructure (AMI), (c) New Business Trench Reimbursements, and (d) New Business Forfeitures.[309]

### 1. ORA

#### a. New Business Construction

ORA does not take issue with the SoCalGas' proposed cost components for new business construction for 2018 and 2019, which are $50.925 million and $54.534 million, respectively.[310]

[305] Please see Appendix A, Item #3 for a detailed review of corrections of ORA's numbers.
[306] Ex. SCG-04-R (Orozco-Mejia) at 93:14-16.
[307] *Id.* at 93:17-18.
[308] *Id.* at 93:6-7.
[309] *Id.* at 93:22-96:4.
[310] Ex. ORA-11 (Phan) at 48:19-20.

ORA recommends adopting the 2017 recorded costs for new business construction.[311] ORA then applies forecasted new business trench reimbursements and new business forfeitures to the 2017 recorded cost.[312] SoCalGas does not oppose application of 2017 recorded new business trench reimbursements and new business forfeitures, resulting in a lower 2017 recorded costs for new business construction. For 2018, ORA acknowledges SoCalGas' base forecast for new business construction, but incorrectly uses $45.313 million, instead of $50.925 million.[313]

The base forecast for new business construction expenditures was forecasted by taking the number of projected new meter sets added to the Gas Distribution system and multiplying that value by the cost per meter set. SoCalGas' base forecasts are $42.244 million for 2017, $50.925 million for 2018, and $54.534 million for 2019.

**b. Advanced Metering Infrastructure**

ORA does not take issue with SoCalGas' request of $1.471 million for Advanced Metering Infrastructure activities for 2019.[314]

**c. New Business Trench Reimbursements**

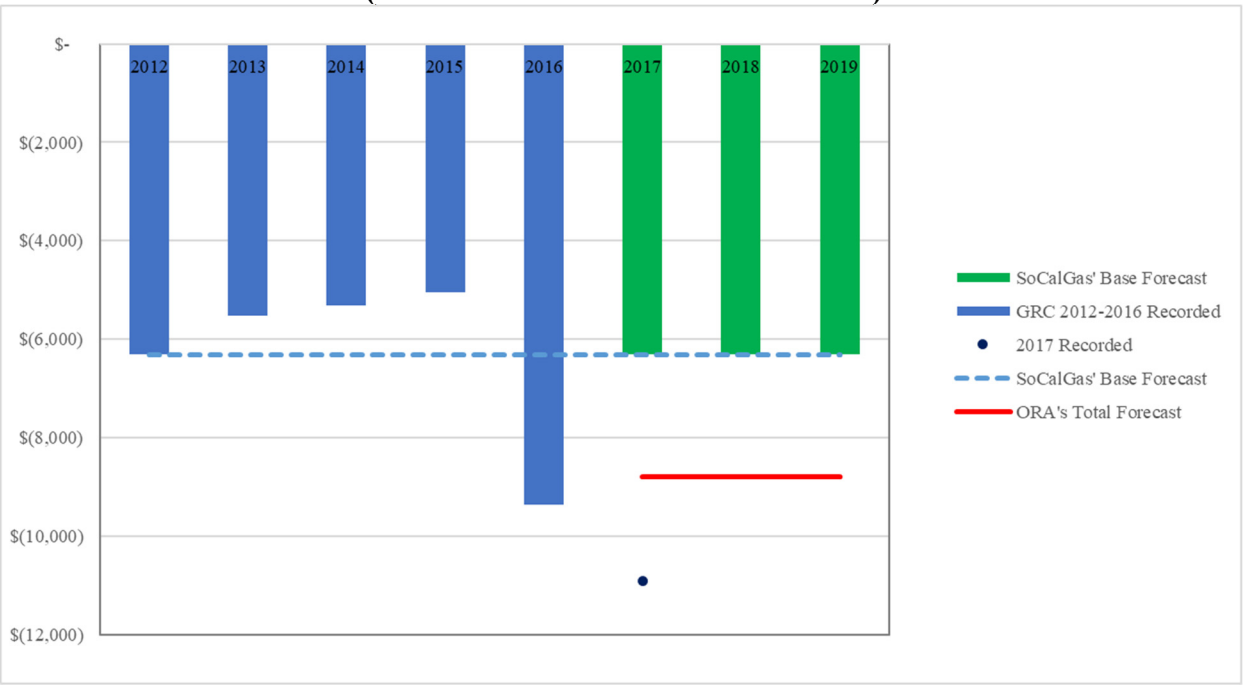
ORA does not take issue with SoCalGas' New Business Trench Reimbursements forecast of $0.697 million annually for 2017-2019.[315]

**d. New Business Forfeitures**

ORA disagrees with SoCalGas' forecast for New Business Forfeitures.[316] ORA disputes SoCalGas' use of the five-year (2012-2016) average to determine its forecast for New Business Forfeitures and asserts that the LRY for Main & Stub Forfeitures and five-year (2012-2016) average for Service & Meter Set Assembly are more appropriate.[317] The figure below represents SoCalGas' historical spending and total forecast for New Business Forfeitures, as well as ORA's proposal for this area.

[311] *Id.* at 48:21-22.
[312] *Id.* at 48:3-7.
[313] *Id.* at 47:24.
[314] *Id.* at 49:3-4.
[315] *Id.* at 49:11-12.
[316] *Id.* at 49:19-20.
[317] *Id.* at 49:22-50:2.

**Figure GOM-17**
**Southern California Gas Company**
**New Business Forfeitures**
**(Thousands of Constant 2016 Dollars)**




New business forfeitures reimburse SoCalGas for the cost of unused and/or underutilized facilities constructed at the request of a new business customer.[318] Forfeiture amounts are dependent on customer gas throughput levels incurred over a three- to ten-year period after commencement of service.[319] Due to the high volume of activity and the inherent complexity of tracking each customer's construction job and the associated throughput over a period of time, SoCalGas forecasted forfeitures based on the historical five-year (2012-2016) average.[320] As shown in the figure above, this methodology allows SoCalGas to capture years of high, as well as years of low, forfeiture activity. SoCalGas forecasted forfeiture credits of $6.309 million for each of the years 2017, 2018, and 2019.

ORA states, "the use of a 5-year average to forecast the 2017-2019 credits is inappropriate" because "the Main and Stub forfeitures show an increasing trend for credits received during the 2013-2016 period."[321] Instead, ORA recommends that SoCalGas use the

[318] Ex. SCG-04-R (Orozco-Mejia) at 95:24-25.
[319] *Id.* at 95:28-29.
[320] *Id.* at 95:21-96:1.
[321] Ex. ORA-11 (Phan) at 50:16-18.

Last Recorded Year (LRY) for Main & Stub forfeitures.[322] ORA did not oppose SoCalGas' methodology of using the five-year average for Service and Meter Set Assembly forfeitures.[323]

The LRY methodology is not a good indicator of forfeiture amounts in future years. The primary driver of Main & Stub forfeitures is Tariff Rule No. 20 - Gas Main Extensions, which states that "[t]he total refundable amount is subject to refund for a period of ten (10) years after the extension is first ready for service."[324] Therefore, forfeitures are impacted by what was happening over a period of 10 years prior to the forecast period, as opposed to ORA's LRY method looking at the last 4 years. This can cause forfeiture levels to significantly fluctuate year to year. Given the difficulty in predicting future years and the uncertainty associated with these amounts, SoCalGas chose an average of historical costs (2012-2016) as its forecast methodology.

Main & Stub forfeitures are impacted by the new business environment over the 10 years before the current GRC cycle. The increase in forfeitures in 2016 and 2017 was likely caused by the projects that decreased or were halted, as housing construction dropped sharply (i.e. new connections decreased by 23% in 2007 and 30% in 2008 at SoCalGas). Following this sharp turn, housing connections continued to drop. The main cause was that projects were not being initiated, so it is likely that forfeitures 10 years later will also significantly decrease. Therefore, SoCalGas determined that the most accurate forecast methodology to forecast forfeitures is the five-year average (2012-2016) because it takes into account variations from year to year and over a longer 10-year outlook based on how forfeitures are determined under Rule 20.[325]

Although SoCalGas does not agree with ORA's LRY methodology as used in this case, it is important to note that ORA has shown a pattern of inconsistency. For instance, ORA did not recommend using a LRY (2016) methodology for new business trench reimbursements even though there has been an upward trend in trench reimbursements from 2014-2016, which would have resulted in a *higher* forecast of $0.988 million for 2017 through 2019.[326] On the other hand, in regards to Main & Stub forfeitures, ORA selectively recommended using a LRY (2016) forecasting methodology, resulting in a lower New Business forecast.[327]

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[322] *Id.* at 50:22.
[323] *Id.* at 49:22-50:2.
[324] SoCalGas Tariff Rule No. 20.E.3, *available at* https://www.socalgas.com/regulatory/tariffs/tm2/pdf/20.pdf.
[325] Ex. SCG-04-R (Orozco-Mejia) at 95-96.
[326] *See* Ex. ORA-11 (Phan) at 49:9-12.
[327] *Id.* at 49:22-23.

Given ORA's misunderstanding of the long-term new business impacts on forfeitures, the Commission should deny its proposal and adopt SoCalGas' forecast for the reasons articulated above.

## B. Supply Line Replacements

**Table GOM-28**
**Southern California Gas Company**
**Gas Distribution Supply Line Replacements Capital Estimates**
**(Thousands of Constant 2016 Dollars)**

| | Position of Party | | |
|---|---|---|---|
| | ***2017*** | ***2018*** | ***2019*** |
| **SCG** | 4,209 | 4,209 | 4,209 |
| **ORA** | 1,833 | 4,209 | 4,209 |
| CUE Base | 4,209 | 4,209 | 4,209 |
| Incremental | - | - | 5,936 |
| **CUE** | 4,209 | 4,209 | 10,145 |
| ORA - SCG | (2,376) | - | - |
| CUE - SCG | - | - | 5,936 |

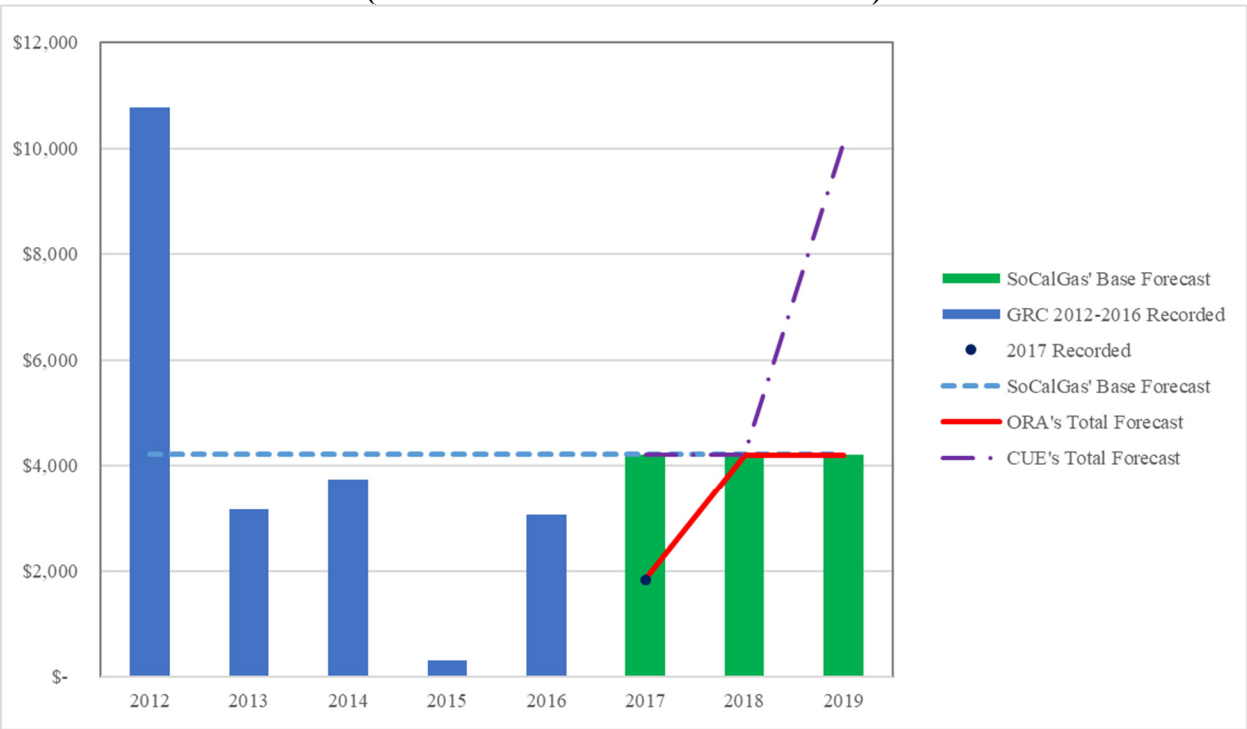
The Supply Line Replacements work category includes expenditures to replace high-pressure distribution pipelines, referred to as "supply lines" at SoCalGas.[328]

In developing the Supply Line Replacements forecast, historical expenditures for 2012 through 2016 were evaluated.[329] SoCalGas recognizes that the timing to complete each supply line replacement project is difficult to predict due to the need for: review of operating conditions, detailed planning requirements, acquisition of required permits, risk assessment, and coordination and scheduling of resources.[330] Therefore, SoCalGas estimated the expenditures for the years 2017 through 2019 based on the historical average of recorded expenditures of the years 2012 through 2016.[331] Based on the number of variables involved in these larger-scale projects, this average is more representative of future work requirements and expected expenditures, as it captures typical fluctuations in supply line project costs from year to year.[332]

[328] Ex. SCG-04-R (Orozco-Mejia) at 99:2-3.
[329] *Id.* at 100:5-6.
[330] *Id.* at 100:6-9.
[331] *Id.* at 100:9-11.
[332] *Id.* at 100:11-13.

The figure below represents SoCalGas' total forecast, as well as ORA's and CUE's proposals for this area, which are discussed in the following sections.

**Figure GOM-18**
**Southern California Gas Company**
**Supply Line Replacements**
**(Thousands of Constant 2016 Dollars)**




### 1. ORA

ORA does not take issue with SoCalGas' request for Supply Line Replacements expenditures for 2018-2019.[333] ORA recommends adopting the 2017 recorded expenditures of $1.833 million as the 2017 forecast, which SoCalGas does not oppose.[334]

### 2. CUE

CUE proposes to increase the rate of supply line replacements, starting in 2019, to 4.7 miles per year, from SoCalGas' current proposed rate of just under two miles. The associated capital expenditures would be $10.145 million, an increase of $5.936 million over SoCalGas'

[333] Ex. ORA-11 (Phan) at 53:14-15.
[334] *Id.* at 53:15-16.

proposal.[335] CUE's proposal to accelerate the current rate of replacement is based on the approximately 743 miles of SoCalGas distribution high-pressure lines that are older than the average age of 68 years.[336]

Supply line replacements are driven by conditions observed during operations and maintenance activities. When deteriorated conditions are found to exist on a supply line, an engineering evaluation of the pipeline is conducted to determine the requirement for replacement, abandonment, or localized repair.[337] Supply line replacement decisions are based on several factors, including pipe condition, leakage history, operating history, construction methods, system and customer demands, proximity to known potential geological hazards, and consequence of potential failure.[338] As can be seen in the figure above, this work fluctuates from year to year. Therefore, SoCalGas chose the five-year (2012-2016) average methodology as it best represents the level of work expected in this work category during this GRC cycle.

In addition to the forecast of Supply Line Replacements in my revised direct testimony, the replacement of approximately 17 miles of DOT-defined transmission lines managed by Gas Distribution (supply lines), is proposed under PSEP Phase 1B in years 2019-2021, as further described in the revised direct testimony of Rick Phillips on the Pipeline Safety and Enhancement Plan (Exhibit SCG-15).

Therefore, the Commission should adopt SoCalGas' forecast for Supply Line Replacements.

[335] CUE (Marcus) at 18:5-12.
[336] *Id.* at 17:20-21.
[337] Ex. SCG-04-R (Orozco-Mejia) at 99:15-17.
[338] *Id.* at 99:18-20.

## C. Service Replacements

**Table GOM-29[339]**
**Southern California Gas Company**
**Gas Distribution Service Replacements Capital Estimates**
**(Thousands of Constant 2016 Dollars)**

| | Position of Party | | |
|---|---|---|---|
| | ***2017*** | ***2018*** | ***2019*** |
| **SCG** | 28,538 | 31,470 | 34,403 |
| **ORA** | 35,205 | 31,470 | 30,760 |
| CUE Base | 28,538 | 31,470 | 34,403 |
| Incremental - Old Steel | - | - | 779 |
| **CUE** | 28,538 | 31,470 | 35,182 |
| ORA - SCG | 6,667 | - | (3,643) |
| CUE - SCG | - | - | 779 |

The work represented in this category includes expenditures associated with routine replacement of isolated distribution service pipelines to maintain system reliability and customer safety.[340] Most service replacement projects are driven by leakage and pipe corrosion.[341] Furthermore, of the leaks found in steel services, a significant number is found on pipe that is not under cathodic protection.[342] To correct these leaks, it is sometimes more prudent to replace the entire service, rather than repair the leak and install and maintain cathodic protection on the existing service.[343]

SoCalGas forecasts continuing service line replacements at the five-year (2012-2016) linear trend. This approach allows SoCalGas to replace its aging infrastructure and address service pipe leaks. As discussed in Section III.B. above, the costs associated with service replacement mitigation actions in support of RAMP risks are embedded in the base forecast.[344]

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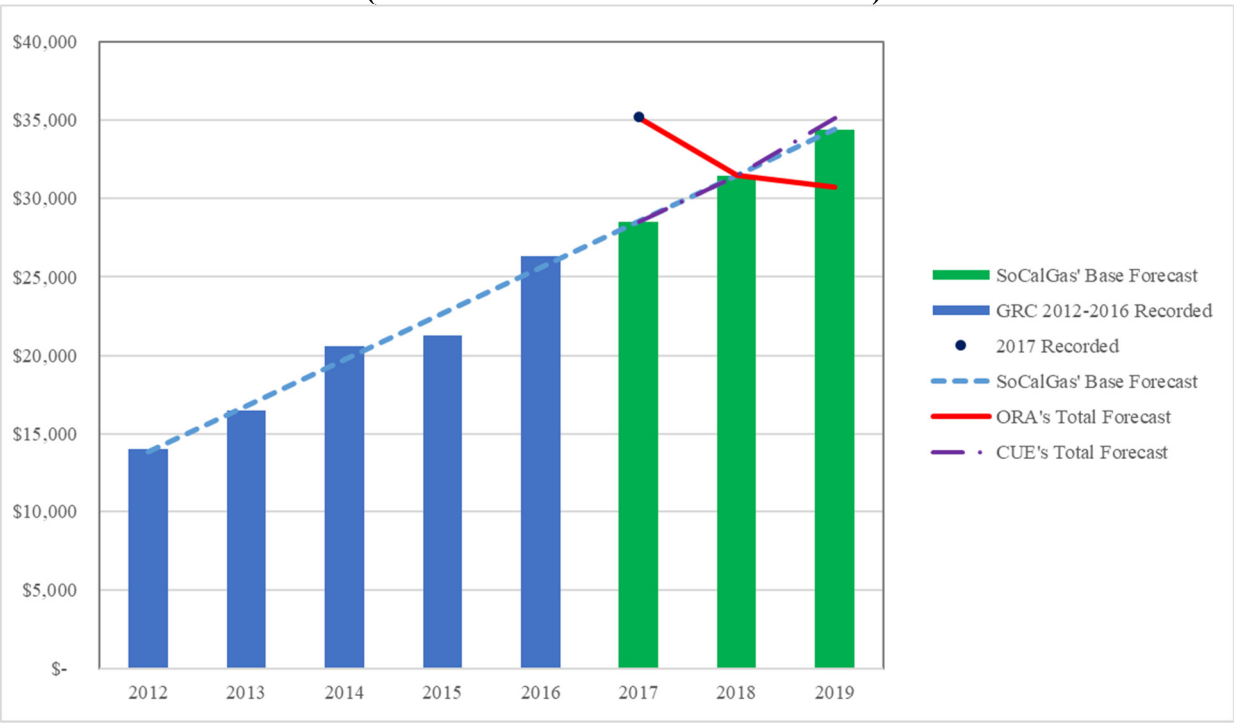
[339] Although ORA states that it does not object to SoCalGas' 2018 forecast of $31.470 million, in its Table 11-2, ORA shows a 2018 forecast of $31.871 million. Ex. ORA-11 (Phan) at 4, 55-57. In addition, ORA has an error in its 2019 forecast, showing the average of 2016 ($26.314 million) and 2017 ($35.205 million) to be $31.871 million. *See id.* Both numbers are corrected in this table. Please see Appendix A, Item #4 and #5 for a detailed review of corrections of ORA's and CUE's numbers.
[340] Ex. SCG-04-R (Orozco-Mejia) at 103:20-23.
[341] *Id.* at 104:11-12.
[342] *Id.* at 104:12-13.
[343] *Id.* at 104:13-15.
[344] *Id.* at 14, Table GOM-07.

The figure below represents SoCalGas' total forecast, as well as ORA's and CUE's proposals for this area, which are discussed in the following sections.

**Figure GOM-19**
**Southern California Gas Company**
**Service Replacements**
**(Thousands of Constant 2016 Dollars)**




### 1. ORA

ORA recommends the 2017 recorded expenditures in lieu of SoCalGas' 2017 forecast, which SoCalGas does not oppose.[345] ORA agrees with SoCalGas' 2018 forecast, which used the five-year (2012-2016) linear trend, but disputes the 2019 forecast for this work category.[346]

ORA disputes SoCalGas' use of the trending methodology to determine its base forecast for 2019 and states that "per Commission guidance from previous GRCs, when expenditures show a trend, it is appropriate to use the LRY as the forecast for test year spending."[347] ORA recommends using the two-year average of 2016 and 2017 recorded expenses as the base amount for the 2019 forecast, instead of the five-year (2012-2016) linear trend used by SoCalGas.[348]

[345] Ex. ORA-11 (Phan) at 57:6-7.
[346] *Id.* at 57:1-3.
[347] *Id.* at 56:16-18.
[348] *Id.* at 57:1-3.

ORA's use of two different methodologies in the same work category is an example of how ORA has been inconsistent and selective in its forecasts.

As noted in Section III.B. above, ORA does not discuss SoCalGas' RAMP analysis for Gas Distribution and does not offer testimony regarding the funding of these specific activities from a risk reduction perspective. ORA ignores SoCalGas base forecast methodology, which includes RAMP embedded base costs to prevent double counting of upward pressures. ORA's recommendation to reduce SoCalGas forecast, fails to recognize that the Service Replacement forecast helps to reduce the risk of asset failure and enhance public safety.

ORA acknowledges that "[t]he SCG five year (2012-2016) historical spending for Service Replacements shows a steady increase in expenditures for the replacement of services."[349] The figure above provides a view of SoCalGas' historical spend, its forecast, as well as ORA's recommendations. Although, SoCalGas had significantly higher spending in 2017 ($35.205 million), ORA's recommendation of $30.760 million for 2019, based on a two-year average (2016-2017 recorded) forecast, is $3.643 million below SoCalGas' 2019 forecast and significantly below ($4.445 million) SoCalGas' actual recorded amount in 2017.[350] ORA's recommendation forecasts a downward trend for this activity, but provides no support for how a work activity experiencing ongoing upward pressure would reverse this trend by 2019. In fact, the historical data provided above shows an upward trend and directly contradict ORA's characterization of this activity.

As discussed in my revised direct testimony, SoCalGas has approximately 49,516 miles of service pipe.[351] This figure consists of approximately 17,767 miles of steel, and approximately 31,749 miles of plastic service lines.[352] As of the end of 2016, SoCalGas had approximately 58,168 pre-1940 service lines, approximately 853,405 service lines without cathodic protection and approximately 1.1 million pre-1986 service lines, categorized as vintage plastic pipe.[353] Although these service line categories are not the only pipelines where

[349] *Id.* at 56:15-16.
[350] *Id.* at 57:8 (ORA's forecast a contained a calculation error. ORA incorrectly calculated the averages for the 2016 and 2017 recorded expenditures, which totaled $30.760 million instead of $31.871 million.).
[351] Ex. SCG-04-R (Orozco-Mejia) at 104:9.
[352] *Id.*
[353] *Id.* at 104-105.

replacements occur, they highlight the need to continue to focus on service replacements to reduce risks of external corrosion and pipeline failure.

This work category addresses the replacement of leaking service lines, which helps to mitigate risks that can impact public and employee safety as well as the integrity and reliability of the pipeline system. The costs associated with this RAMP activity are included in the Service Replacement base forecast.

The Commission should reject ORA's proposed forecast for 2019 because it is incomplete in its analysis and is inadequately supported by the facts. Therefore, the Commission should adopt the SoCalGas five-year linear trend (2012-2016) for its 2019 forecast.

**2. CUE**

**a. Base Forecast**

CUE does not take issue with SoCalGas' request for Service Replacement expenditures for 2017-2019.[354]

However, CUE proposes specific direct expenditure increases to this work area.[355] CUE proposes replacing an additional 205 non-bare steel services per year starting in 2019 that are older than 67 years, at an incremental cost of $0.779 million.[356] CUE states there will be approximately 18,912 non-bare services over 67 years old by the end of 2019 and proposes replacing the incremental service lines to begin phasing out these older services.[357]

Although, SoCalGas agrees that pipe infrastructure needs to be replaced before reaching its end of life, SoCalGas routine replacement work does not target steel service replacements solely based on their age. There are other factors that drive services replacements such as corrosion and leaks. SoCalGas used its five-year (2012-2016) linear trend to forecast its expenditures for 2017 through 2019 as it best represents the volume of routine work at which this work has been increasing and addresses aging infrastructure.

Therefore, the Commission should adopt SoCalGas' forecast for Service Replacements based on a five-year linear trend as it supports the replacement of an aging infrastructure.

[354] CUE (Marcus) at 19:9-11.
[355] *Id.* at 19:4-5
[356] *Id.* at 15:20.
[357] *Id.* at 15:5-21.

## D. Main and Service Abandonments

**Table GOM-30**
**Southern California Gas Company**
**Gas Distribution Main and Service Abandonments Capital Estimates**
**(Thousands of Constant 2016 Dollars)**

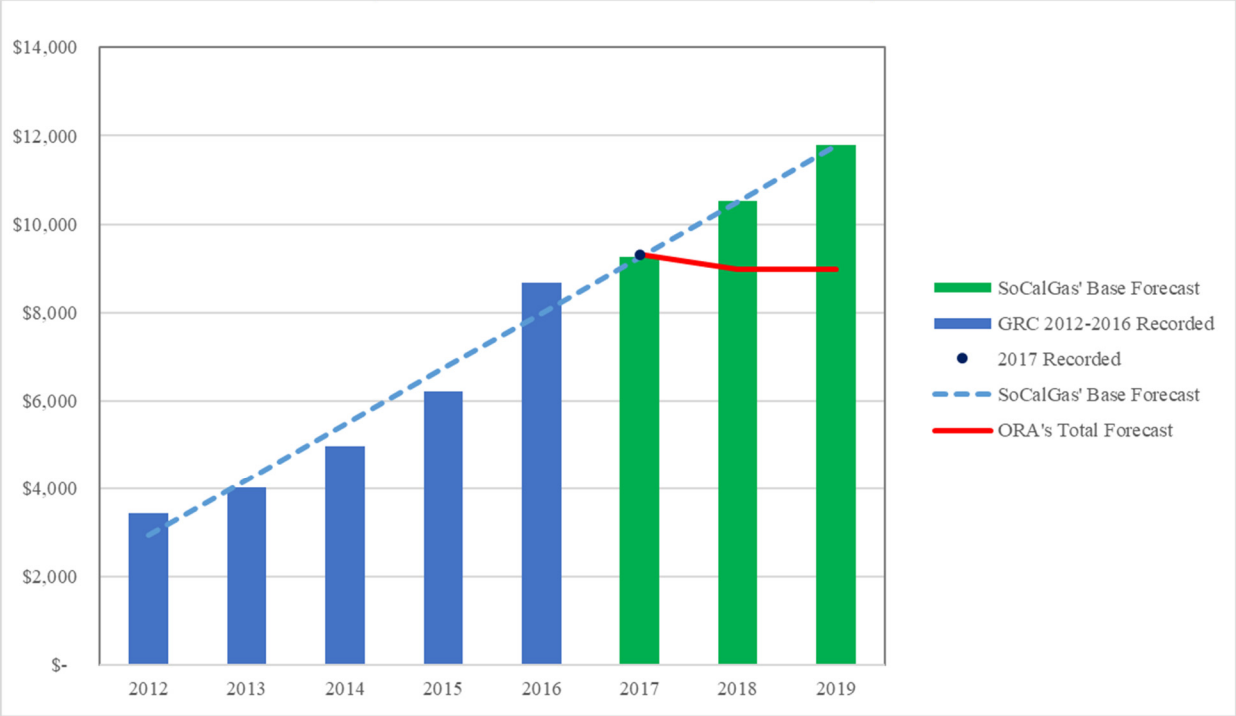
| | Position of Party | | |
|---|---|---|---|
| | ***2017*** | ***2018*** | ***2019*** |
| **SCG** | 9,256 | 10,522 | 11,787 |
| **ORA** | 9,312 | 8,988 | 8,988 |
| ORA - SCG | 56 | (1,534) | (2,799) |

This work category includes expenditures associated with the abandonment of distribution pipeline mains and services, without the installation of a replacement pipeline.[358] Abandonment of mains and services occur primarily when pipeline is no longer needed for current system operations and is not expected to be needed in the future.[359] The activities contained in Main and Service Abandonments are especially necessary to eliminate the risk that may result from a hazardous condition due to the potential for third-party damage, thus mitigating a public safety risk.[360] Main abandonments are typically driven by city and state requests involving the vacating and demolition of public property, at which point there is no opportunity for replacement.[361] Service lines are deactivated when gas service is cancelled as a result of demolition or when temporary service is terminated.[362]

SoCalGas developed its forecast using a five-year (2012-2016) linear trend because it incorporates the level of expenditures and activity seen during the historical period and anticipates an increase in spending in the upcoming years due to a continued increase in construction activity near pipelines and a favorable economic environment.[363] The figure below represents SoCalGas' total forecast, as well as ORA's proposal for this area, which is discussed in the following section.

[358] Ex. SCG-04-R (Orozco-Mejia) at 106:15-16.
[359] *Id.* at 106:24-25.
[360] *Id.* at 106:25-107:2.
[361] *Id.* at 107:3-4.
[362] *Id.* at 107:4-6.
[363] *See US Markets Metro Economies: West*, IHS MARKIT (Spring 2017) (Total Employment for SoCalGas 12-county area growth rate is used as a directional indicator for general economic conditions and potential economic growth).

**Figure GOM-20**
**Southern California Gas Company**
**Main and Service Abandonments**
**(Thousands of Constant 2016 Dollars)**




### 1. ORA

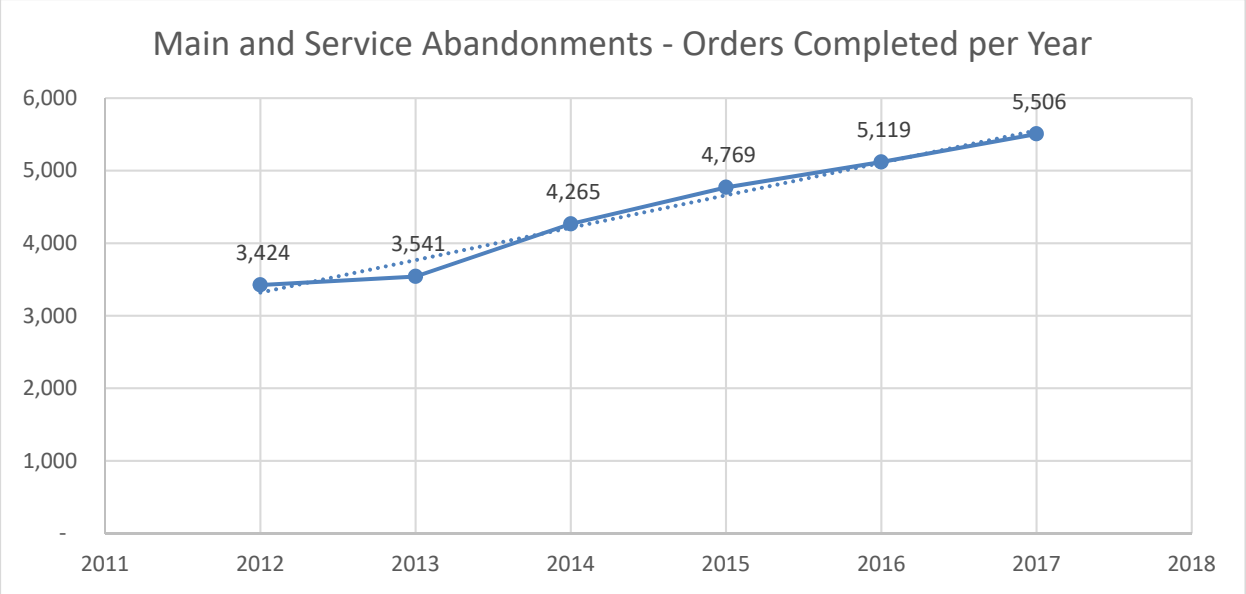
ORA recommends adopting SoCalGas' actual recorded 2017 expenditures for the 2017 forecast, which SoCalGas does not oppose.[364] ORA disputes SoCalGas' use of the trending methodology and recommends using the two-year average of 2016 and 2017 recorded spending to forecast expenditures for 2018 and 2019, instead of the five-year (2012-2016) linear trend used by SoCalGas.[365]

ORA uses the same argument, as in other areas where SoCalGas used the trending methodology, that when the historical data shows an upward trend, the LRY methodology should be used based on the Commission's guidance for developing test year forecasts.[366] As discussed in Section III above, ORA's approach is unreasonable because it ignores ongoing work and historical cost trends.

[364] Ex. ORA-11 (Phan) at 59:1.
[365] *Id.* at 58:20-21.
[366] *Id.* at 58:16-17.

ORA acknowledges that "the Main and Service Abandonments recorded expenditures for 2012-2016 clearly show an upward trend," and that "the 2017 spending was higher than the base year amount."[367] However, ORA does not elaborate nor attempt to provide justification for how the activities in this category will decrease in 2018 and 2019. The data provided in the figure above shows recorded expenses in 2012-2016 in an upward trend and show 2017 spending higher than the base year amount, providing support to the upward pressure. This work is often driven by economic conditions and as the economy continues to trend in a positive direction over the forecast period, so will the need for main and service abandonments. The figure below shows the number of orders in relation to the expenditures in the figure above.

**Figure GOM-21**
**Southern California Gas Company**
**Number of Main and Service Abandonment Orders**




The Commission should reject ORA's proposed forecast for 2018 and 2019 because it is incomplete in its analysis and inadequately supported by the facts. Therefore, the Commission should adopt SoCalGas' five-year linear trend (2012-2016) for its 2018 and 2019 forecast.

[367] *Id.* at 58:14-19.

## E. Regulator Stations

**Table GOM-31**
**Southern California Gas Company**
**Gas Distribution Regulator Stations Capital Estimates**
**(Thousands of Constant 2016 Dollars)**

| | Position of Party | | |
|---|---|---|---|
| | ***2017*** | ***2018*** | ***2019*** |
| SCG Base | 8,636 | 8,636 | 8,636 |
| Incremental - Regulator Station Replacement | - | 6,000 | 10,800 |
| **SCG** | 8,636 | 14,636 | 19,436 |
| **ORA** | 6,427 | 7,531 | 7,531 |
| CUE Base | 8,636 | 8,636 | 8,636 |
| Incremental - Regulator Station Replacement | - | 6,000 | 24,600 |
| **CUE** | 8,636 | 14,636 | 33,236 |
| ORA - SCG | (2,209) | (7,105) | (11,905) |
| CUE - SCG | - | - | 13,800 |

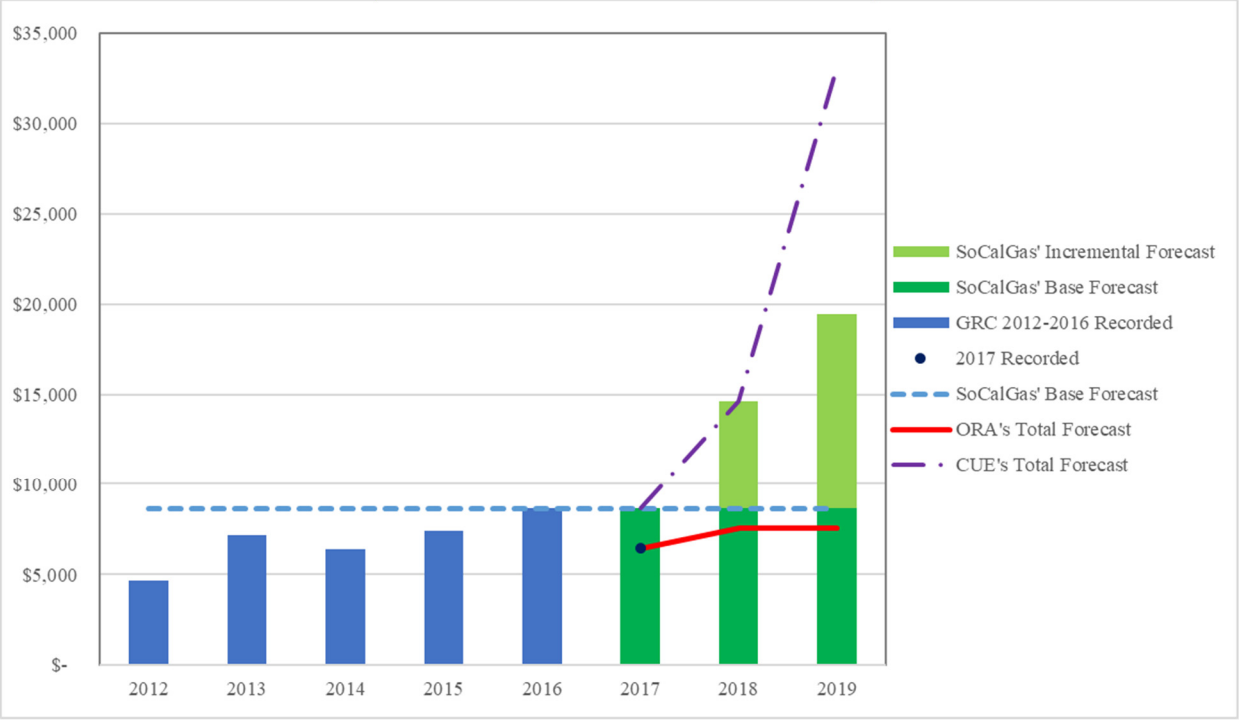
Represented in this work category are expenditures for the upgrade, relocation, and replacement of regulator stations due to design obsolescence, active corrosion, deteriorating vaults or equipment, exposure to flooding, hazardous traffic conditions, or being ergonomically unsafe.[368] Regulator stations are installed to reduce the pressure of gas entering the distribution system from high-pressure pipelines to provide the lower pressures used on the distribution pipeline network, providing steady, reliable operating conditions to customers.[369] As such, regulator stations are key pieces of control equipment on the SoCalGas pipeline network that support the mitigation of key safety risks identified in the RAMP Report. As discussed in Section III.B. above, the costs associated with regulator stations mitigation actions in support of RAMP risks are embedded in the base forecast.[370] Regulator stations not only serve to regulate gas pressure, but also as a line of defense against over-pressurization.[371]

[368] Ex. SCG-04-R (Orozco-Mejia) at 109:2-110:11.
[369] *Id.* at 109:10-12.
[370] *Id.* at 16-17, Table GOM-09.
[371] *Id.* at 109:15-16.

SoCalGas used the 2016 Base Year recorded plus incremental increases to capture the expenditures for this work category for 2017-2019. The selected forecast approach allows SoCalGas to capture the spending needed to address an aging infrastructure and associated safety and reliability concerns.

The figure below provides a summary of historical costs as well as the parties' forecasts.

**Figure GOM-22**
**Southern California Gas Company**
**Regulator Stations**
**(Thousands of Constant 2016 Dollars)**




### 1. ORA

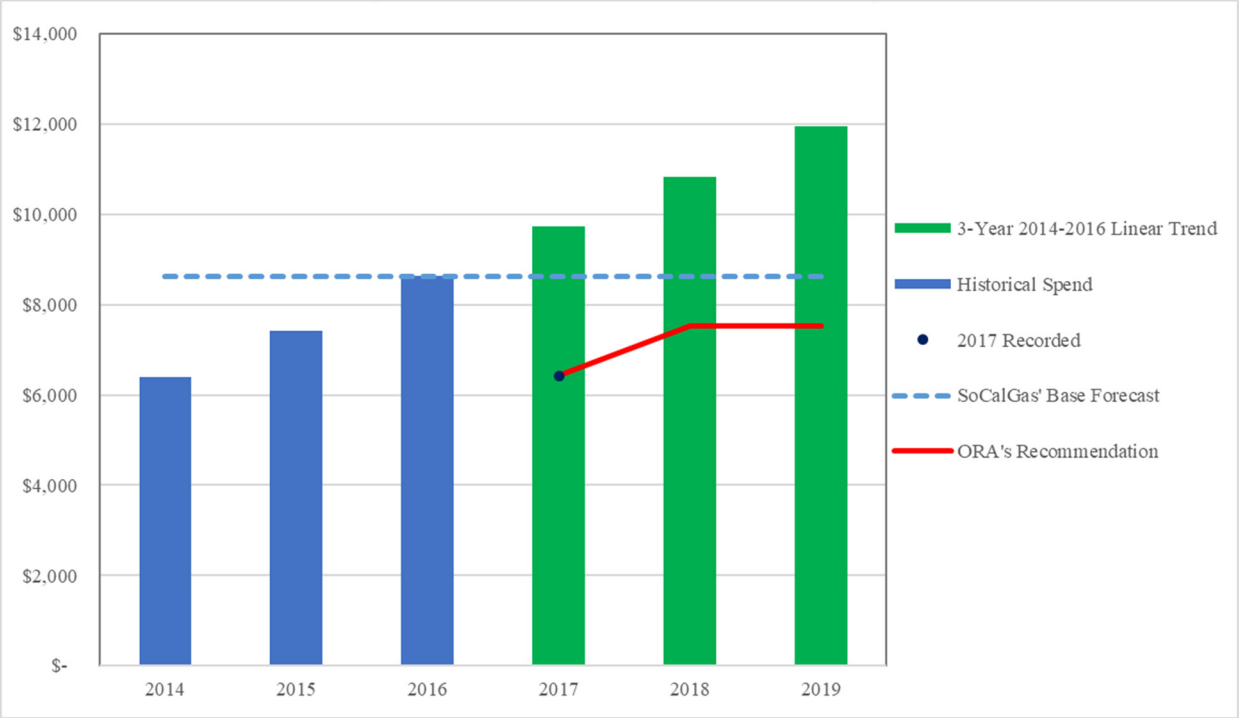
#### a. Base Forecast

ORA recommends the 2017 recorded expenditures for the 2017 forecast, which SoCalGas does not oppose.[372] For 2018 and 2019, ORA recommends using a two-year average based on the 2016 and 2017 recorded expenditures and opposes any funding for the incremental request to accelerate the replacement of regulator stations.[373] SoCalGas disagrees with ORA's 2018 and 2019 forecasts.

[372] Ex. ORA-11 (Phan) at 60:15-16.
[373] *Id.* at 60:18-20.

ORA recognizes that "SCG proposes the 2016 recorded expenditures as the base amount for its 2017-2019 forecasts. This method is appropriate since recorded expenditures for Regulator Stations indicate an upward trend from 2014 to 2016," yet ORA recommends a lower amount than base year (2016) recorded for 2018 and 2019.[374] ORA's approach is unreasonable because it ignores ongoing work and historical cost trends. Had SoCalGas used the 2014-2016 trend ORA referenced, the base forecast for 2017, 2018, and 2019 would have been $9.722 million, $10.841 million, and $11.959 million respectively, as shown in the figure below, instead of the $8.636 million for each year forecasted by SoCalGas. Therefore, the base forecast used by SoCalGas was more conservative than using the general upward trend observed in the historical data.

**Figure GOM-23**
**Southern California Gas Company**
**Regulator Stations - Use of Trend Methodology**
**(Thousands of Constant 2016 Dollars)**




Expenditures in 2017 were lower than SoCalGas' forecast due to delays in several projects. However, over the GRC period, the forecasted funding will be required as project planning and permitting is completed and sent out for construction.

[374] *Id.* at 60:22-24.

As noted in Section III.B. above, ORA does not discuss SoCalGas' RAMP analysis for Gas Distribution and does not offer testimony regarding the funding of these specific activities from a risk reduction perspective. ORA ignores SoCalGas' base forecast methodology, which includes RAMP embedded base costs to prevent double counting of upward pressures.[375] ORA's recommendation to reduce SoCalGas forecast, fails to recognize that the Regulator Stations forecast helps to reduce the risk of asset failure and enhance public safety.

The Commission should reject ORA's proposed base forecast because it is incomplete in its analysis and inadequately supported by the facts. Therefore, the Commission should adopt the SoCalGas base year recorded (2016) for its base forecast.

**b. Regulator Station Replacement Program**

ORA disputes SoCalGas' funding request for the incremental replacement of regulator stations in 2018 and 2019.[376] ORA claims SoCalGas' request is excessive and did not have adequate support.[377]

ORA questions the validity of SoCalGas' request for regulator station replacement acceleration and believes SoCalGas' operating and maintenance practices allow stations to exceed the average useful life.[378] However, as discussed in Section IV of this rebuttal, ORA recommends decreasing the operation and maintenance (O&M) expenditures for Regulator Stations for TY 2019 to a level below the base year (2016) and significantly below SoCalGas' request.[379]

SoCalGas disagrees with ORA's assessment, which ignores information provided in my revised direct testimony, workpapers, and in responses to data requests. SoCalGas clarified the number of regulator stations it plans to replace in 2018 in a data request response to ORA.[380] SoCalGas plans to replace an additional 10 regulator stations in 2018, not eight. The Regulator Stations capital workpaper referenced the correct number and the cost forecast also used the correct number; however, my revised direct testimony incorrectly referenced the number

[375] *See* Ex. SCG-04-R (Orozco-Mejia) at 16-17, Table GOM-09.
[376] Ex. ORA-11 (Phan) at 64:21.
[377] *Id.* at 63:2; 64:22-23.
[378] *Id.* at 64:21-65:2.
[379] *Id.* at 61:1-2; Ex. SCG-04-R (Orozco-Mejia) at 109:7.
[380] ORA-SCG-093-DAO, Question 1.b, attached as Appendix B.

"eight."[381] However, this error did not impact the forecast expenditures. SoCalGas also plans to replace an incremental 18 regulator stations over the base year in 2019.

SoCalGas emphasized the replacement of regulator stations above their average life expectancy because these stations have the greatest safety, integrity, and reliability concerns. ORA acknowledges that age is not the only reason that regulator stations are replaced, pointing to the following discussion from my revised direct testimony:

> SoCalGas will rank the replacement of district regulator stations across its operating regions based on criteria that prioritize station that have outdated designs, are prone to corrosion, have limited capacity, and have single run designs that create labor intensive routine maintenance.[382]

Additionally, a response to an ORA's data request asking for clarification on how SoCalGas prioritizes the replacement of regulator stations, further clarified the various contributing factors by stating:

> SoCalGas prioritizes the replacement of regulator stations with emphasis on the safe and reliable delivery of natural gas and several factors contribute to the replacement decisions, including:
>
> Safety – The safety of our customers and employees is our top priority. A safety-related condition that cannot be addressed in a satisfactory manner through maintenance will be targeted for replacement.
>
> Condition – Certain conditions, when encountered, such as material or component failure, severe corrosion and other unanticipated factors require that action be taken. If system configuration prevents the facility from being taken off-line, replacement is the preferred option.
>
> System Reliability – SoCalGas' gas distribution system is analyzed and evaluated to determine ability to meet winter and summer peak load demand conditions. If it is determined that a larger regulator station is needed for reliability purposes, the existing facility will be scheduled for replacement.
>
> New Business – As communities across our service territory expand, it may become necessary to replace an existing regulator station to increase system capacity to meet demand.

[381] Ex. SCG-04-CWP (Orozco-Mejia) at 77; SCG-04-GOM-CAP-SUP-011 at 88; *see also* Ex. SCG-04-R (Orozco-Mejia) at 111:18; Errata and Discovery Responses, attached as Appendix D.
[382] Ex. SCG-04-R (Orozco-Mejia) at 111:19-21; *see also* Ex. ORA-11 (Phan) at 63:7-9.

Franchise Obligations – When SoCalGas regulator station facilities conflict with municipalities, railways, or state and federal improvement projects, SoCalGas is required by franchise agreement to accommodate these projects, which could entail relocation via replacement.[383]

As ORA noted and shown in the table below, there are approximately 809 regulator stations that are above the 35-year average life expectancy, including approximately 324 stations that have been in service for over 50 years.[384]

**Table GOM-32**
**Southern California Gas Company**
**SCG Regulator Stations by Age**

| Age (yr.) | Regulator Station Count |
|---|---|
| 0-5 | 111 |
| 5-9 | 139 |
| 10-14 | 157 |
| 15-19 | 155 |
| 20-24 | 163 |
| 25-29 | 288 |
| 30-34 | 153 |
| 35-39 | 136 |
| 40-44 | 161 |
| 45-49 | 188 |
| >50 | 324 |
| **Total** | **1,975** |

Regulator stations are key pieces of control equipment on the SoCalGas pipeline network. Failure of a regulator station could result in over-pressurizing or under-pressurizing the gas distribution system, impacting service to customers and/or jeopardizing public safety. These are mechanical devices that will not operate forever and must be replaced prior to failure. At ORA's recommended base year (2016) replacement rate of 13 regulator stations, it would take SoCalGas 62 years to replace these regulator stations. Using SoCalGas' 2019 replacement

[383] ORA-SCG-062-DAO, Question 2.a, attached as Appendix B.
[384] Ex. ORA-11 (Phan) at 63:9-12.

recommendation of 31 stations per year, it would take approximately 26 years to replace these stations.[385]

ORA references SoCalGas' statement that "under the current replacement rate, 68% of the regulator stations in the system will be above the expected useful life of 35 years," as the rationale for SoCalGas regulator stations replacement increase.[386] This is incorrect, as discussed above, the reason SoCalGas is increasing the replacement of regulator stations is due to safety, integrity, and reliability concerns, not solely the age of the regulator stations.

The 68% was provided as reference point for the number of regulator stations exceeding the 35-year average life expectancy in the next ten years, *assuming no replacements are done*.[387] This was calculated by aging the current regulator stations by 10 years and dividing the number of stations greater than 35 years by the total number of regulator stations. ORA is correct in stating that currently 40% of the regulator stations are older than 35 years.[388]

In data provided to ORA, SoCalGas incorrectly titled the chart below as "SCG Regulator Stations Replaced" that should have been titled, "Regulator Stations Installed."[389] The numbers in this table account for regulator station replacements, relocations, and new installations; not just replacements. However, this error did not impact SoCalGas' cost forecast.

**Table GOM-33**
**Southern California Gas Company**
**SCG Regulator Stations Installed**

| Year | Regulator Stations Replaced |
|---|---|
| 2012 | 29 |
| 2013 | 27 |
| 2014 | 19 |
| 2015 | 20 |
| 2016 | 20 |
| 2017 | 17 |

Additionally, SoCalGas provided the table below to ORA in response to a separate question in the same data request with the breakdown of the numbers that are reflected in the table above.[390]

[385] This is the sum of 13 replacements in the base forecast and 18 incremental replacements (13 + 18 = 31).
[386] Ex. ORA-11 (Phan) at 60:9-11.
[387] ORA-SCG-064-DAO, Question 2, attached as Appendix B.
[388] Ex. ORA-11 (Phan) at 61:23-24.
[389] *Id.* at 62, Figure IV; *see also* ORA-SCG-062-DAO, Question 2.e, attached as Appendix B.
[390] ORA-SCG-062-DAO, Question 7.b-d, attached as Appendix B.

**Table GOM-34**
**Southern California Gas Company**
**Breakdown of Regulator Stations Replaced**

| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017YTD |
|---|---|---|---|---|---|---|
| New Installations | 9 | 8 | 7 | 3 | 5 | 8 |
| Relocations | 13 | 7 | 3 | 11 | 2 | 5 |
| Replacements | 7 | 12 | 9 | 6 | 13 | 4 |
| Total | 29 | 27 | 19 | 20 | 20 | 17 |

Based on the above data, 51 of the 132 regulator stations installed between 2012 and 2017 were targeted replacements due to design obsolescence, active corrosion, deteriorating vaults or equipment, exposure to flooding, hazardous traffic conditions, or considered ergonomically unsafe. ORA does not factor this into its analysis and incorrectly assumes that every regulator station installed is a replacement for a regulator station that is over the average life expectancy. ORA focuses on the declining average age of regulator stations, which is driven by the total number of installations.[391] However, as stated before, the Regulator Station Replacement Program is targeting the stations that are above the 35-year life expectancy.

ORA states that when asked, SoCalGas did not provide risk assessments performed on the regulator stations replaced between 2012 and 2017.[392] In response to ORA's data request, SoCalGas stated the following:

> The assessments are conducted on a continuous basis by the regional measurement and regulation teams. As the local technician's report findings from the ongoing inspections and maintenance activities, a list of regulator station replacements is developed for the subsequent year. For reference, the current list of regulator stations identified for replacement is attached to this response. SoCalGas does not retain other records of risk assessments previously performed.[393]

ORA quoted a segment of SoCalGas response in a data request: "SoCalGas does not retain other records of risk assessments previously performed."[394] In referencing this portion of the response, ORA stated that it "is puzzled by SCG's practice of not keeping records regarding

[391] Ex. ORA-11 (Phan) at 63:9-64:6.
[392] *Id.* at 64:12-14.
[393] ORA-SCG-062-DAO, Question 2.d, attached as Appendix B.
[394] Ex. ORA-11 (Phan) at 64:14-15.

its capital assets, and questions the validity of SCG's request."[395] However, ORA misunderstood the response and its claims are misleading.

ORA's question was, "Provide the number of regulator stations replaced each year from 2012-2017YTD, by risk factor."[396] In response to ORA's data request, SoCalGas stated, "Please see below the number of regulator stations replaced from 2012 – 2017 YTD (November 30, 2017). Once a station is replaced, SoCalGas does not keep documentation of the reason for the replacement."[397]

The last portion of this response was answering the specific request of providing number of regulator stations replaced by risk factor. SoCalGas keeps all required documentation on its infrastructure; however, its central database does not track the risk factor that drove the replacement of the regulator stations. SoCalGas documents the reason for replacement through its engineering review process; however, this documentation is not categorized in the manner ORA requested. SoCalGas has demonstrated that as prudent operator, it must take proactive action to replace aging infrastructure before it fails.

For reasons stated above, the Commission should adopt SoCalGas' forecast for 2018 and 2019 in lieu of ORA's forecast in order to adequately address this aging infrastructure, which supports the mitigation of risks SCG-4 Catastrophic Damage Involving a High-Pressure and SCG-10 Medium-Pressure Pipeline Failure.

**2. CUE**

CUE proposes that SoCalGas be required to achieve a steady-state regulator station replacement rate of 56 in this GRC, which would require another 25 incremental replacements per year above SoCalGas' proposal. The incremental capital cost of CUE's proposal would be $13.800 million per year, over the $19.436 million already proposed by SoCalGas for 2019, for a total CUE proposal of $33.236 million in 2019.[398]

SoCalGas proposes to increase its targeted replacement rate by replacing an incremental 23 regulator stations in 2018 and 31 in 2019.[399] This number is composed of the units included in the base forecast, which is based on the 2016 recorded expense, as well as the incremental

[395] *Id.* at 64:17-18.
[396] ORA-SCG-062-DAO, Question 2.e, attached as Appendix B.
[397] *Id.*
[398] CUE (Marcus) at 16:14-19.
[399] (13+10=23) in 2018 and (13+18=31) in 2019

increase described in the Regulator Stations Replacement Program section above. SoCalGas agrees that the regular station replacement rate should increase and will use its proposed incremental replacement program to rank the replacement of regulator stations across its operating regions based on criteria that prioritize stations that have outdated designs, are prone to corrosion, have limited capacity, and have single run designs that create labor intensive maintenance and impact safety and reliability.

Therefore, the Commission should adopt SoCalGas' forecast as it addresses the need to increase the replacement of an aging infrastructure.

### F. Cathodic Protection - Capital

**Table GOM-35[400]**
**Southern California Gas Company**
**Gas Distribution Cathodic Protection Capital Estimates**
**(Thousands of Constant 2016 Dollars)**

| | Position of Party | | |
|---|---|---|---|
| | ***2017*** | ***2018*** | ***2019*** |
| SCG Base | 5,821 | 6,435 | 7,049 |
| Incremental - RMU Installations | 499 | 1,999 | 2,462 |
| **SCG** | 6,320 | 8,434 | 9,511 |
| ORA Base | 8,264 | 5,860 | 5,860 |
| Incremental - RMU Installations | - | 1,999 | 2,462 |
| **ORA** | 8,264 | 7,859 | 8,322 |
| ORA - SCG | 1,944 | (575) | (1,189) |

The Cathodic Protection (CP) Capital work category includes expenditures associated with the new installation and replacement of CP systems and equipment.[401] Corrosion on pipelines increases the risk for leaks and can reduce the useful life of the pipelines.[402] Without proper intervention, buried steel pipelines will corrode by reverting back to their natural state as iron oxide.[403] This workgroup is governed by 49 C.F.R. § 192, Subpart I, and GO 112-F, which

[400] Please see Appendix A, Item #6 for a detailed review of a correction of ORA's number.
[401] Ex. SCG-04-R (Orozco-Mejia) at 112:21-22.
[402] *Id.* at 113:3-4.
[403] *Id.* at 113:2-3.

set forth the regulatory standards for pipeline corrosion control.[404] SoCalGas chose a five-year (2012-2016) linear trend plus incremental activities to address an aging CP system that requires an increasing rate of infrastructure renewal and support. Cathodic Protection Capital costs help to prolong the age and performance of pipe, while replacing those infrastructures that may become a risk to the system. Moreover, these costs are imperative to preserving the integrity of steel pipelines by protecting them from external corrosion and support the Company's goals to mitigate risks associated with public safety, system reliability, and infrastructure integrity. As discussed in Section III.B. above, the costs associated with cathodic protection mitigation actions in support of RAMP risks are embedded in the base forecast.[405]

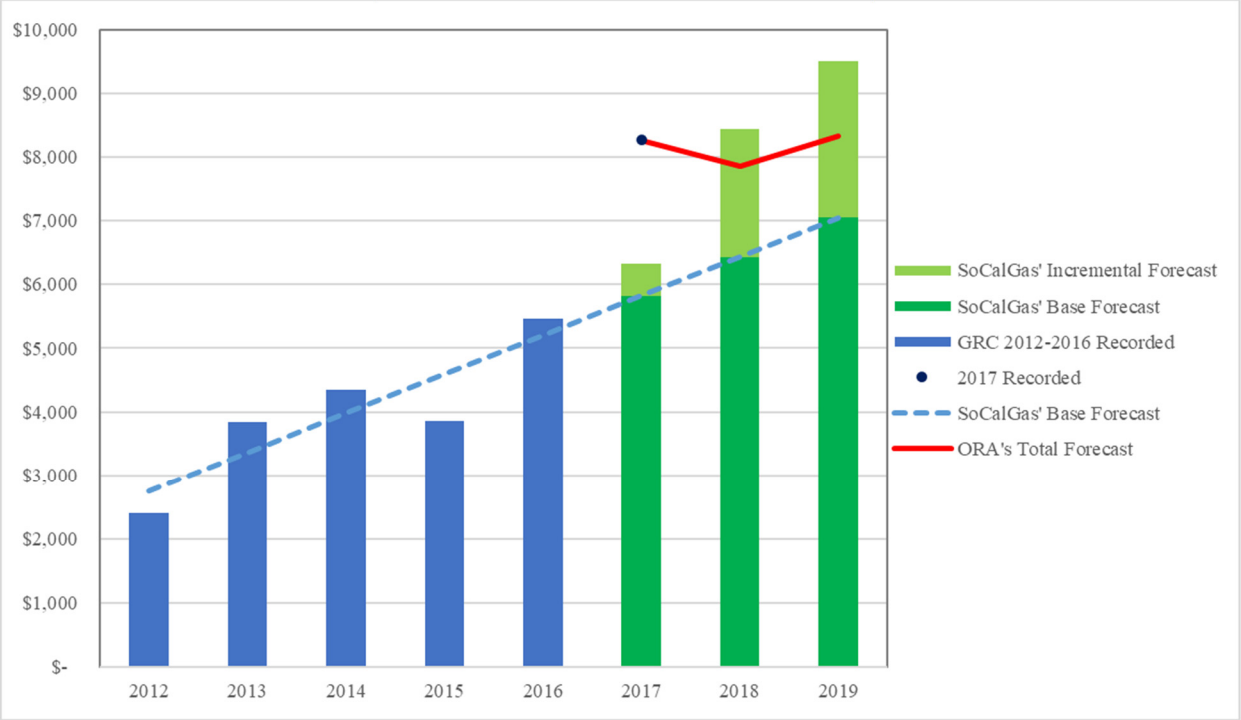
Expenditures for this capital work category vary from year to year due to a variety of risk factors that impact the effectiveness and productivity of a cathodic protection system, such as infrastructure age, rate of anode depletion, soil moisture and type, electric current interference system damages, customer actions, and pipe coating effectiveness.[406] As the system continues to age and deteriorate, the need to replace major CP system components will increase.[407] In order to maintain a cathodically-protected area, it is often necessary to convert magnesium anode protected areas into impressed-current areas, which are better able to deliver more current to the pipeline system.[408] SoCalGas plans to expand this approach by increasing the number of areas converted from magnesium anodes to impressed current to provide more CP to areas that require additional protection.[409]

SoCalGas selected a five-year (2012 through 2016) linear trend plus incremental increase for its forecast, as this allows the Company to capture the increased activity to respond to an aging CP system requiring increased rates of infrastructure renewal.[410]

The figure below summarizes historical costs, SoCalGas' forecast and ORA's recommendation.

[404] *Id.* at 113:11-12.
[405] *Id.* at 17, Table GOM-09.
[406] *Id.* at 114:3-6.
[407] *Id.* at 114:6-7.
[408] *Id.* at 114:7-10.
[409] *Id.* at 114:11-13.
[410] *Id.* at 114:14-16.

**Figure GOM-24**
**Southern California Gas Company**
**Cathodic Protection Capital**
**(Thousands of Constant 2016 Dollars)**




### 1. ORA

#### a. Base Forecast

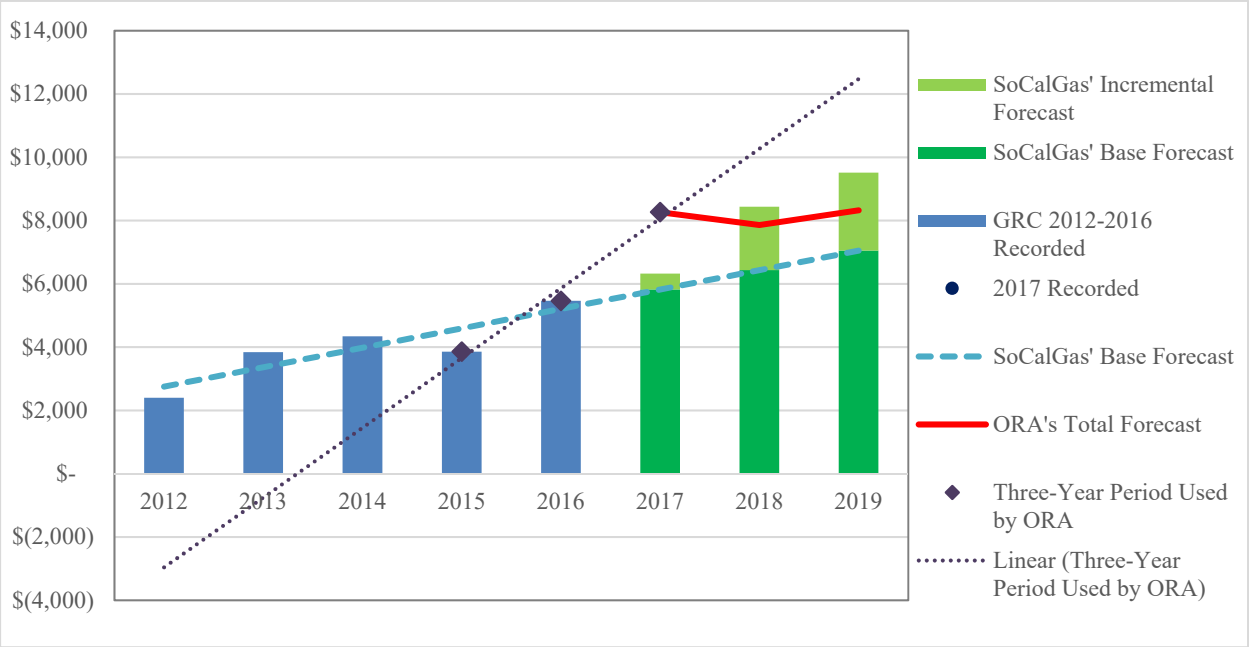
ORA recommends the 2017 recorded expenditures in lieu of SoCalGas' 2017 forecast, which SoCalGas does not oppose.[411] For 2018 and 2019, ORA disputes SoCalGas' base forecast and recommends using a three-year (2015-2017) average methodology.[412] ORA's 2018 forecast incorrectly adds the expenditures for the base capital work and remote monitoring units. ORA's 2018 forecast, if calculated correctly, should have been $7.859 million, instead of $6.059 million, since it did not oppose SoCalGas' funding request for remote metering units.

ORA justifies its forecasts by stating that "the expenditures of this work group fluctuate from year to year" and that "[t]here is no clear trend up or down."[413] This statement is incorrect. As can be observed in the figure below, the historical data shows a general upward trend for the five-year history (2012-2017). Furthermore, there is a clear upward trend for the years 2015-

[411] Ex. ORA-11 (Phan) at 66:9-10.
[412] *Id.* at 66:18-19.
[413] *Id.* at 66:20-21.

2017, that grows at a significantly faster rate than the five-year trend SoCalGas used. The figure below provides a summary of historical costs as well as the ORA's forecast that used a three-year trend (2015-2017).

**Figure GOM-25**
**Southern California Gas Company**
**Cathodic Protection Capital with Three-Year (2015-2017) Trend**
**(Thousands of Constant 2016 Dollars)**




Trends indicate a general movement along a directional line that does not specifically require an exact rigid placement for each and every data point. Whether a particular year's data point is higher or lower than the trend line, the purpose of a trend is to capture the general movement of the activity or cost. With the exception of 2014, the expenditures in this work activity trended upward.

As the system continues to age and deteriorate, the need to replace major CP system components will continue to increase.[414] In order to maintain cathodic protection, it is often necessary to convert magnesium anode-protected areas into impressed-current areas, which are better able to deliver current to the pipeline system.[415] This is normally done for magnesium-anode areas with chronic maintenance issues and require capital funding.[416] SoCalGas forecasts a continued expansion of this activity.

[414] Ex. SCG-04-R (Orozco-Mejia) at 114:6-7.
[415] *Id.* at 114:7-10.
[416] *Id.* at 114:10-11.

As noted in Section III.B. above, ORA does not discuss SoCalGas' RAMP analysis for Gas Distribution and does not offer testimony regarding the funding of these specific activities from a risk reduction perspective. ORA ignores SoCalGas' base forecast methodology, which includes RAMP embedded base costs to prevent double counting of upward pressures.[417] ORA's recommendation to reduce SoCalGas forecast, fails to recognize that the Cathodic Protection Capital forecast helps to reduce the risk of asset failure and enhance public safety. As discussed above, SoCalGas' use of the five-year (2012-2016) linear trend for its base forecast is appropriate because historical data and future drivers support this methodology and more importantly, supports SoCalGas' commitment to address aging infrastructure, specifically with regards to the level of protection needed to maintain its pipelines. For these reasons, the Commission should adopt SoCalGas' forecast for 2018 and 2019 in lieu of ORA's forecast.

**b. Remote Monitoring Units (RMUs)**

ORA does not dispute SoCalGas' forecast for Remote Monitoring Units.[418]

## G. Pipeline Relocations – Freeway

**Table GOM-36**
**Southern California Gas Company**
**Gas Distribution Pipeline Relocations – Freeway Capital Estimates**
**(Thousands of Constant 2016 Dollars)**

| | Position of Party | | |
|---|---|---|---|
| | ***2017*** | ***2018*** | ***2019*** |
| **SCG** | 7,837 | 7,837 | 7,837 |
| **ORA** | 1,402 | 3,745 | 3,745 |
| ORA - SCG | (6,435) | (4,092) | (4,092) |

Pipeline Relocation – Freeway work is driven by governing agencies' requests for SoCalGas to relocate pipe and related facilities that, if maintained in their current location, would interfere with planned construction or reconstruction of freeways.[419] This work category includes expenditures associated with external requests for relocating or altering SoCalGas

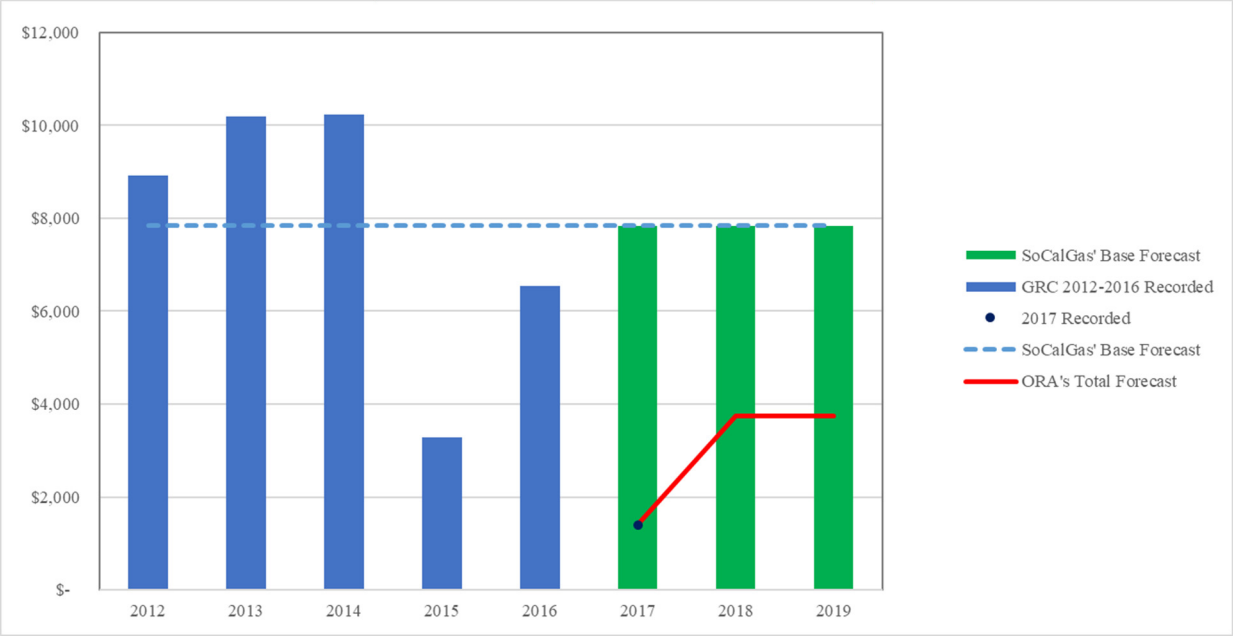
[417] *Id.* at 16-17, Table GOM-09.
[418] Ex. ORA-11 (Phan) at 67:3-4.
[419] Ex. SCG-04-R (Orozco-Mejia) at 116:18-21.

facilities, as specified under the provisions of utility franchise agreements with these state and local agencies, primarily to CalTrans.[420]

In developing the forecast for this work category, SoCalGas reviewed historical (2012-2016) expenditures and currently available data for future known projects.[421] As a result, expenditures for this work category were forecasted using the five-year (2012-2016) historical average.[422] This average is most representative of future work requirements and expected expenditures, as it captures typical fluctuations in project costs from year to year and provides for special projects taking place during the forecast period.[423]

The figure below summarizes historical costs, SoCalGas' forecast and ORA's recommendations.

**Figure GOM-26**
**Southern California Gas Company**
**Pipeline Relocations - Freeway**
**(Thousands of Constant 2016 Dollars)**




[420] *Id.* at 116:21-24; 118:5-7.
[421] *Id.* at 117:13-14.
[422] *Id.* at 117:21-22.
[423] *Id.* at 117:22-24.

### 1. ORA

ORA recommends the 2017 recorded expenditures in lieu of SoCalGas' 2017 forecast, which SoCalGas does not oppose.[424] For 2018 and 2019, ORA disagrees with SoCalGas' five-year (2012-2016) average methodology and recommends using a three-year (2015-2017) average for each year.[425] ORA's recommendation produces a forecast of $3.745 million per year, $4.092 million lower than SoCalGas' forecast for both 2018 and 2019.[426] ORA states that SoCalGas' recent spending in this area justifies its forecast.[427] However, for reasons outlined below its forecast does not represent the work expectations of this category.

Although ORA considered recent spending, ORA's forecast in this area is inappropriate because it excludes the three years with the highest levels of spending and fails to account for all of the typical fluctuations that are reasonably expected in this area. Furthermore, in a previous GRC proceeding, ORA stated that "data from as many years as possible should be used for a more reliable forecast."[428] SoCalGas acknowledges that the 2017 expenditure is lower than anticipated and was one of the lowest recorded spending amounts in recent times, as shown in the figure above. However, it is not a true indicator of what to expect moving forward.

As stated above, the work in this category is driven by outside requests and the timing of the projects is not fully within SoCalGas' control. This causes some years with high and low expenditures. For instance, there were two CalTrans projects delayed in 2017 that were consequently pushed into 2018. This is an example of what SoCalGas means when it considers fluctuations in its forecast for this work activity. The total direct cost of those two projects is approximately $3.645 million.

ORA's three-year average (2015-2017) would inappropriately omit these costs and insufficiently fund this work category, and should be rejected. As transportation agencies continue with improvement and expansion projects, SoCalGas is required to respond by relocating infrastructure in conflict with freeway construction.

---

[424] Ex. ORA-11 (Phan) at 68:9-11.
[425] *Id.* at 68:14-15.
[426] *Id.* at 68:16.
[427] *Id.* at 68:12-13.
[428] A.14-11-003/-004 (cons.), Ex. ORA-10 (Phan) at 8:9-10.

Freeway relocation projects include distribution pipeline work, supply line alterations, service alterations, and MSA alterations.[429] The number and timing of freeway pipeline projects are driven by the schedules and budgets of outside agencies and are largely outside of SoCalGas' control.[430] When projects do occur, SoCalGas must promptly complete its portion of the work to minimize delays for the requesting agency.[431]

For the reasons described above, the Commission should reject ORA's 2018 and 2019 forecast and accept SoCalGas' capital forecast for the Pipeline Relocations - Freeway category. ORA's three-year average methodology skews the funding necessary to account for future expected projects and unforeseen fluctuations. As a result, SoCalGas' forecast represents the best indicator of the total funding needed in this work area for the forecast period.

## H. Pipeline Relocations – Franchise

**Table GOM-37**
**Southern California Gas Company**
**Gas Distribution Pipeline Relocations - Franchise Capital Estimates**
**(Thousands of Constant 2016 Dollars)**

| | Position of Party | | |
|---|---|---|---|
| | ***2017*** | ***2018*** | ***2019*** |
| **SCG** | 17,894 | 17,894 | 17,894 |
| **ORA** | 13,200 | 16,891 | 16,891 |
| ORA - SCG | (4,694) | (1,003) | (1,003) |

The work in the Pipeline Relocations - Franchise category includes expenditures associated with relocating or altering SoCalGas facilities in response to external requests, as specified under the provisions of SoCalGas' franchise agreements with city and county agencies.[432] These agencies submit requests for SoCalGas to relocate pipe that would, if maintained in its current location, interfere with the construction or reconstruction of roads or

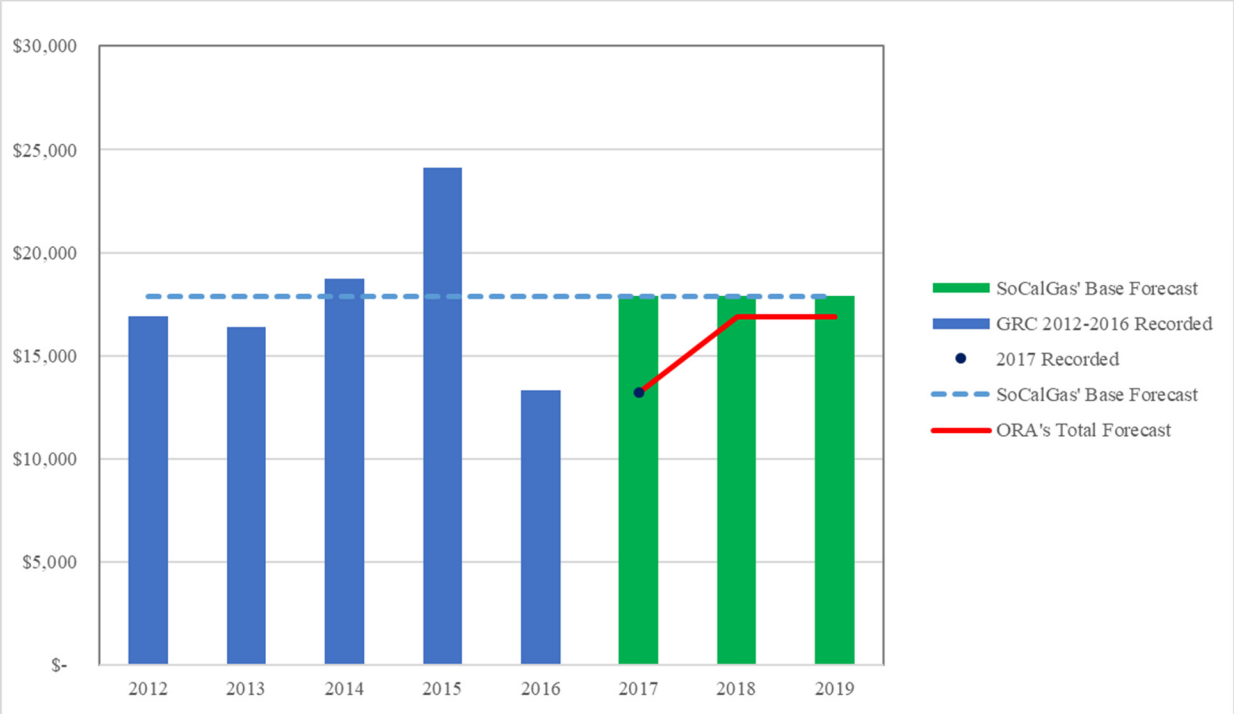
[429] Ex. SCG-04-R (Orozco-Mejia) at 117:2-3.
[430] *Id.* at 117:3-6.
[431] *Id.* at 117:6-8.
[432] *Id.* at 118:15-17.

railway systems.[433] The work in this category includes street widening, resurfacing or repairs, storm drain work, and municipality water and sewer work.[434]

In projecting the future requirements for this activity, SoCalGas reviewed the 2012 through 2016 historical spending for this work category.[435] As favorable economic conditions continue, municipalities will continue to improve their infrastructure.[436] To reflect the anticipated rate of pipeline replacements related to franchise work and to account for the historical fluctuations in project costs from year to year, SoCalGas' projected expenses for this workgroup will follow the five-year (2012 - 2016) historical average.[437]

The figure below summarizes historical costs, SoCalGas' forecast and ORA's recommendations.

**Figure GOM-27**
**Southern California Gas Company**
**Pipeline Relocations - Franchise**
**(Thousands of Constant 2016 Dollars)**




[433] *Id.* at 118:25-119:1.
[434] *Id.* at 119:1-3.
[435] *Id.* at 120:1-2.
[436] *Id.* at 120:2-3.
[437] *Id.* at 120:3-6.

### 1. ORA

ORA recommends the 2017 recorded expenditures in lieu of SoCalGas' 2017 forecast, which SoCalGas does not oppose.[438] For 2018 and 2019 forecast, ORA disagrees with SoCalGas' five-year average methodology and recommends using a three-year (2015-2017) average instead.[439] ORA's recommendation results in a forecast of $16.891 million per year, which is $1.003 million lower than SoCalGas' forecast for both 2018 and 2019.[440] SoCalGas disagrees with ORA's recommendation.

ORA's methodology fails to account for the typical fluctuations seen in this area as shown in the figure above. Franchise work is driven by the volume and type of construction work required in response to requests from external agencies, such as cities and counties. SoCalGas has little control over the construction schedule of these projects, but it must complete its portion of the work in a timely manner to avoid impacts to the external agency's work. Population growth and density also drive municipality work. As an area's population grows or expands, there is a need for street widening, increased street maintenance, and increased capacity of the water and sewer systems. Another driver is the age of the municipality's infrastructure. Generally, as infrastructure ages, there is an increase in the level of replacement activity. The degree of complexity of each relocation request varies and the outside agency's construction schedules often change, directly impacting SoCalGas' construction cost and thus, creating fluctuations year to year.

A five-year average captures a longer time period than ORA's recommendation, which is a more accurate representation of the activities in this workgroup and would account for historical fluctuations. In a previous GRC proceeding, ORA stated that "data from as many years as possible should be used for a more reliable forecast."[441]

For the reasons described above, the Commission should reject ORA's recommendation and accept SoCalGas' capital forecast for Pipeline Relocations – Franchise because it represents the most accurate and sound evaluation of the funding necessary for the GRC period and captures the fluctuation, typical of this workgroup as seen during the 2012-2017 recorded period.

[438] Ex. ORA-11 (Phan) at 69:19-20.
[439] *Id.* at 69:23.
[440] *Id.* at 70:3.
[441] A.14-11-003/-004 (cons.), Ex. ORA-10 (Phan) at 8:9-10.

## I. Other Distribution Capital Projects and Meter Guards

**Table GOM-38**
**Southern California Gas Company**
**Gas Distribution Other Capital Projects and Meter Guards Capital Estimates**
**(Thousands of Constant 2016 Dollars)**

| | Position of Party | | |
|---|---|---|---|
| | ***2017*** | ***2018*** | ***2019*** |
| SCG Base - Other Distribution Capital Projects | 3,297 | 3,297 | 3,297 |
| SCG Base - Meter Guards | 359 | 8,299 | 8,299 |
| **SCG** | 3,656 | 11,596 | 11,596 |
| ORA Base - Other Distribution Capital Projects | 5,162 | 3,297 | 3,297 |
| ORA Base - Meter Guards | 542 | - | - |
| **ORA** | 5,704 | 3,297 | 3,297 |
| ORA - SCG | 2,048 | (8,299) | (8,299) |

This workgroup covers two categories of work, Other Distribution Capital Projects and Meter Guards, which include expenditures for capital adjustments to Gas Distribution facilities that are not specifically included in other work categories and includes meter guard installations.[442]

**Other Distribution Capital Projects**

The Other Distribution Capital Projects work category covers construction projects not covered under franchise agreements, not related to freeway work, and not covered in other capital budget categories.[443]

Given the generally unpredictable nature of this activity, SoCalGas used the historical five-year (2012 through 2016) average to forecast expenditures.[444] This forecast methodology best represents the cyclical volume of work completed on an annual basis and captures the

[442] Ex. SCG-04-R (Orozco-Mejia) at 120:28-30.
[443] *Id.* at 122:2-4.
[444] *Id.* at 122:22-25.

various challenges encountered during construction, which tend to require a higher level of coordination with external parties.[445]

**Meter Guards**

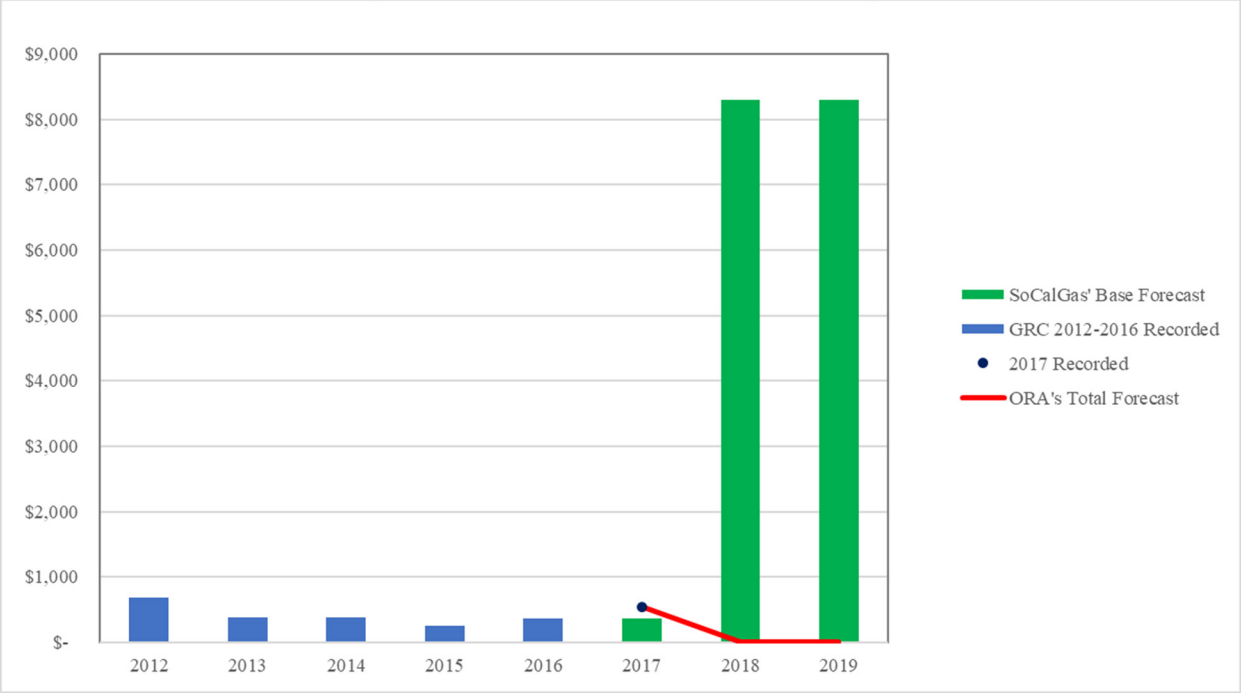
Meter guards are routinely installed to protect the meter set assemblies (MSAs) at existing customer locations from vehicular traffic and limit exposure to other potential sources of impact damage, in accordance with GO 112-F and with 49 C.F.R. § 192.353(a).[446] Meter guards protect the MSA when activity on the property creates or encourages a potentially hazardous environment to the MSA or to the public.[447]

Given the significant increase in meter guard orders the MSA inspection team is identifying and the anticipated increase in the next few years, SoCalGas forecasted this work category using a zero-based approach.[448] For the year 2017, SoCalGas used the Base Year 2016 recorded to forecast the level of expenditure in this capital category.[449] Based on the current inventory of pending meter guard installations, SoCalGas forecasts installing meter guards at approximately 13,000 MSA locations each year in 2018 and 2019.[450]

The figure below represents SoCalGas' historical spending and total forecast for Meter Guards, as well as ORA's proposal for this area, which is discussed in the following section.

[445] *Id.* at 122:25-28.
[446] *Id.* at 124:6-7.
[447] *Id.* at 125:23-24.
[448] *Id.* at 125:5-8.
[449] *Id.* at 125:8-9.
[450] *Id.* at 125:10-12.

**Figure GOM-28**
**Southern California Gas Company**
**Meter Guards**
**(Thousands of Constant 2016 Dollars)**




### 1. ORA

ORA recommends using the 2017 recorded expenditures in lieu of SoCalGas' 2017 forecast, which SoCalGas does not oppose.[451] For 2018 and 2019, ORA agrees with SoCalGas' forecast for the Other Distribution Capital category, but recommends zero funding for the Meter Guards work category.[452]

In its assessment, ORA appears to have assumed that the forecast for Other Distribution Capital was SoCalGas base forecast, while Meter Guards was entirely an upward pressure. These are two separate work categories that ORA should have been analyzed separately.

#### a. Other Distribution Capital

For the Other Distribution Capital work category, ORA recommends using the 2017 recorded expenditures in lieu of SoCalGas' 2017 forecast and for 2018 and 2019, ORA agrees with SoCalGas' forecast.[453] SoCalGas does not dispute ORA's recommendation in the category of Other Distribution Capital.

[451] Ex. ORA-11 (Phan) 71:11-12.
[452] *Id.* at 71:15-17.
[453] *Id*. at 71:11-16.

**b. Meter Guards**

ORA recommends using the 2017 recorded expenditures in lieu of SoCalGas' 2017 forecast, which SoCalGas does not oppose.[454] For 2018 and 2019, ORA recommends zero dollars for this compliance activity.[455] ORA claims SoCalGas request for funding of Capital Meter Guards in 2018 and 2019 is excessive and inadequately supported.[456] SoCalGas disagrees with ORA's recommendation of zero dollars for 2018 and 2019 for Capital Meter Guards.

As previously discussed, under MSA Maintenance activities, in 2016 SoCalGas implemented a focused MSA inspection program to comply with atmospheric corrosion code requirements and to do a more thorough review of conditions at the MSA.[457] Due to these more thorough inspections, the amount of work orders generated for maintenance follow-up increased. The Capital Meter Guards category covers the new installation of meter guards at locations that did not previously have them, while the O&M category Service Maintenance covers the replacement of damaged meter guards; therefore, the work in these categories is not duplicative.

SoCalGas' incremental request is to address the volume of orders that were generated during 2016 and 2017. As Customer Services continues these MSA inspections through the MSA inspection program, SoCalGas is expecting the volume of orders requiring follow-up to continue to increase; however, this request does not include funding for follow-up work orders generated by MSA inspections beyond this time. SoCalGas identified approximately 125,000 locations where a meter guard or other means of meter protection may be required. As shared in response to an ORA data request, SoCalGas will address approximately 13,000 new meter guard locations per year, with the goal of taking care of the inventory over a ten-year period.[458]

ORA points to the historical number of meter guard installations and states that SoCalGas proposal is excessive.[459] However, this incremental increase is for a new program to address a recently created inventory of work. Therefore, the work history does not include this incremental work. In fact, as of March 31, 2018, the total number of locations identified for

[454] *Id.* at 71:11-12.
[455] *Id.* at 71:16-17.
[456] *Id.* at 74:4-6.
[457] *See* 49 C.F.R. §192.481 (Atmospheric corrosion control: Monitoring); *see also* Ex. SCG-04-R (Orozco-Mejia) at 59.
[458] ORA-SCG-065-DAO, Question 7, attached as Appendix B.
[459] Ex. ORA-11 (Phan) at 73:25-26.

further evaluation has actually increased from 125,000 to approximately 147,000. It is anticipated that the final number, when the three-year inspection cycle is complete, will grow to approximately 250,000 locations. The target installations forecasted within this GRC request is critical to achieving the long-term goal of addressing all these sites within 10 years. SoCalGas must respond to this new inventory of work; it cannot just ignore it because it is larger than the historical levels of work as ORA appears to suggest.[460]

ORA states that "as of January 19, 2018, SoCalGas is still developing this plan" and that "ORA is not confident that 13,000 meter guards, or any meter guards from this plan, will be installed by the end of 2018."[461] However, this concern is misplaced, as SoCalGas stated in my revised direct testimony and a response to an ORA data request, it has been working on the implementation plan, including establishing a project team responsible for supporting this effort starting in 2018.[462] An increase of work of this magnitude requires a project plan and resource coordination before work can begin, so the activity can be accomplished in an efficient manner. It takes time to hire personnel and establish external contractor agreements. SoCalGas remains committed to this project and has made significant progress since January 19, 2018. The project team has been established to oversee the planning, scheduling, data tracking, and construction status of meter guard installations. Additionally, SoCalGas is developing a communication plan, which will include pre-construction notification to customers, internal communication to stakeholders, and external communication to interested parties such as municipality officials. ORA's statement that "SCG's claim it must comply with federal regulations by developing and implementing a meter guard installation plan is unsubstantiated. The federal regulation SCG cites, PHMSA Title 49, Subpart H, 192.353(a), is not new"[463] is misleading. In my revised direct testimony, SoCalGas stated that "Meter Guards are routinely installed to protect the MSAs at existing customer locations from vehicular traffic, in accordance with GO 112-F and with 49 C.F.R. § 192.353(a)."[464] SoCalGas did not claim that the need to address the increase in work

[460] *See id.*
[461] *Id.* at 72:13-16.
[462] Ex. SCG-04-R (Orozco-Mejia) at 125:9-10; ORA-SCG-065-DAO, Question 8.a, attached as Appendix B.
[463] Ex. ORA-11 (Phan) at 72:22-73:1.
[464] Ex. SCG-04-R (Orozco-Mejia) at 124:6-7.

was driven by a new regulation, but rather an existing regulation requires SoCalGas to address the increase in work.

"ORA does not dispute new meter guard installations due to changes to the MSA location or environment, and unforeseen by SCG at the time of MSA installation."[465] Furthermore, these capital expenditures support the Company's goals of installing meter guards to mitigate risks associated with hazards to public safety and to the reliability and integrity of pipeline infrastructure. They serve as a first line of defense against vehicular impact in a service territory where, in many areas, parking is a premium and space for MSA installations is limited. Thus, SoCalGas requests the Commission to adopt its 2018 and 2019 forecast based on all the foregoing reasons discussed above.

## J. Capital Tools

**Table GOM-39**
**Southern California Gas Company**
**Gas Distribution Capital Tools Capital Estimates**
**(Thousands of Constant 2016 Dollars)**

| | Position of Party | | |
|---|---|---|---|
| | ***2017*** | ***2018*** | ***2019*** |
| SCG | 8,919 | 10,620 | 12,322 |
| Standardize Locate and Mark Tools | 3,800 | 2,500 | - |
| Confined Space Air Monitoring | - | 1,100 | - |
| Nomex Coveralls and Fresh Air | 1,667 | - | - |
| **SCG** | 14,386 | 14,220 | 12,322 |
| **ORA** | 9,510 | 10,688 | 9,588 |
| ORA - SCG | (4,876) | (3,532) | (2,734) |

The Capital Tools work category includes capital expenditures associated with the purchase of tools and equipment used by Gas Distribution field personnel for the inspection, construction, maintenance and repair of gas pipeline systems.[466] The main drivers of this

[465] Ex. ORA-11 (Phan) at 73:20-22.
[466] Ex. SCG-04-R (Orozco-Mejia) at 134:30-135:1.

category include the need to replace existing tools that are damaged, broken, outdated technologically, or have outlived their useful lives and the need to stock crew vehicles with new tools and equipment.[467] In addition, SoCalGas invests in new tools that provide innovative ways of completing the maintenance and repair of its facilities in order to lessen customer disruptions, improve pipeline facility documentation, improve gas system safety and improve employee safety.[468]

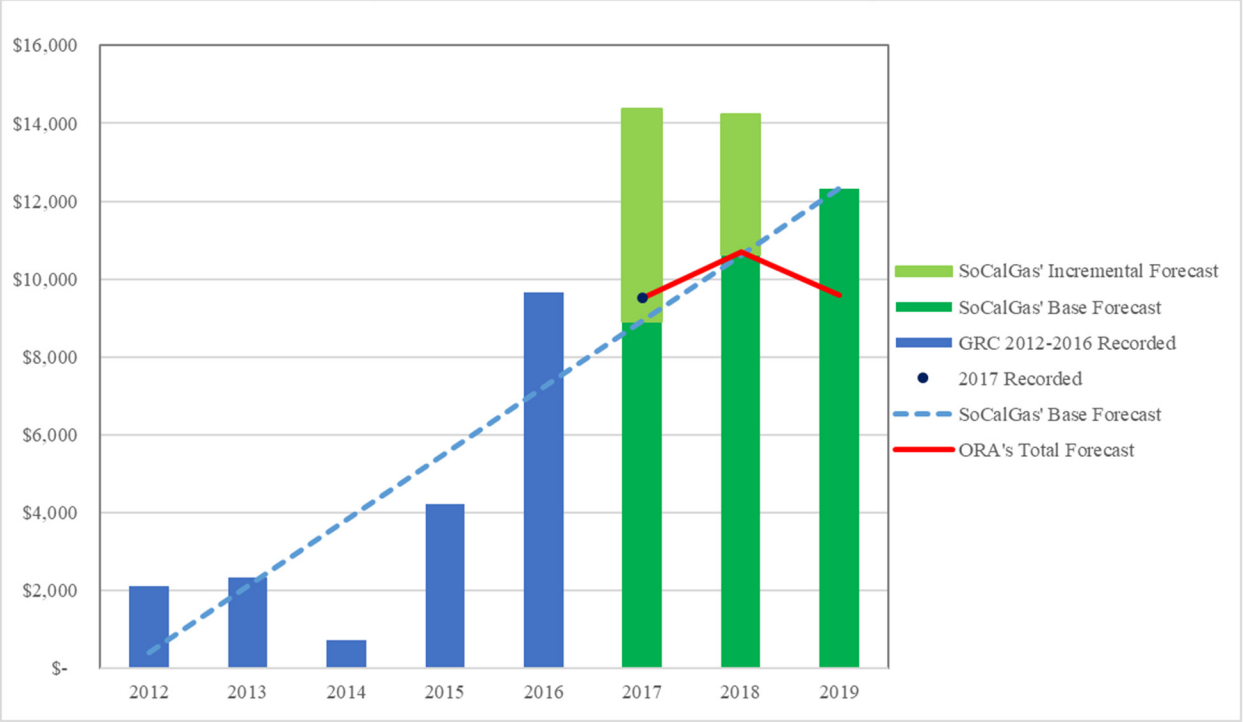
SoCalGas anticipates routine tool purchases to continue in an upward trend, as existing tools and equipment reach their useful life expectancies and as the level of construction and maintenance activities increase.[469] Moreover, this growth in activities will add to the number of new employees that must be equipped with tools and equipment.[470]

In light of these factors, SoCalGas utilized a five-year (2012-2016) historical linear trend for its base forecast of capital tools.[471] Added to this base forecast are incremental tool expenditures not included in the base level spending, including standardized locate and mark tools, confined space air monitoring system, and upgrading Nomex coveralls and fresh air equipment.[472] The costs associated with capital tools support RAMP risk mitigation activities as discussed in Section III.B. above. [473]

The figure below summarizes historical costs, SoCalGas' forecast and ORA's recommendation.

[467] *Id.* at 135:8-10.
[468] *Id.* at 135:10-13.
[469] *Id.* at 135:21-23.
[470] *Id.* at 135:23-24.
[471] *Id.* at 136:5-6.
[472] *Id.* at 136:14-16.
[473] *Id.* at 15-16, Table GOM-09.

**Figure GOM-29**
**Southern California Gas Company**
**Capital Tools**
**(Thousands of Constant 2016 Dollars)**




### 1. ORA

#### a. Base Forecast

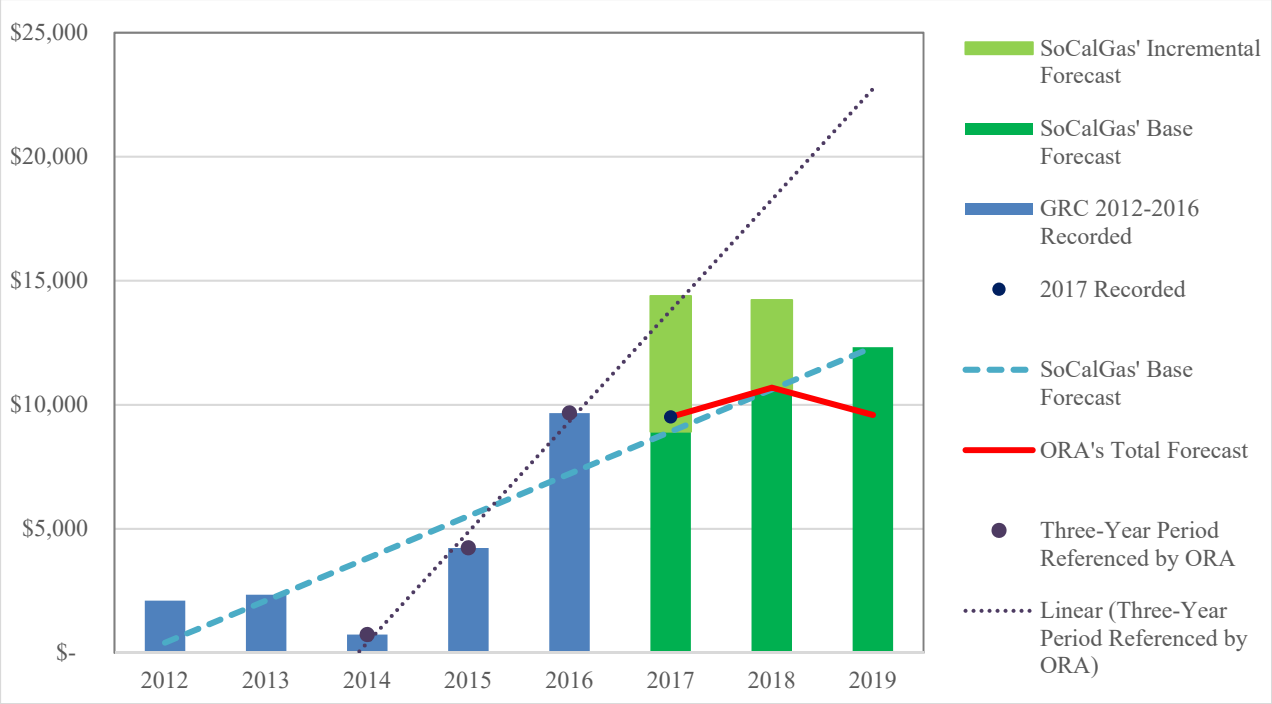
ORA recommends using the 2017 recorded expenditures in lieu of SoCalGas' 2017 forecast.[474] ORA disputes SoCalGas' use of the trending methodology to determine its base forecast in 2018 and 2019 and asserts that the LRY methodology is more appropriate.[475] ORA recommends using the two-year average of 2016 and 2017 recorded expenses as the base amount for its 2018 and 2019 forecast, instead of the five-year (2012-2016) linear trend used by SoCalGas.[476]

As discussed in Section III above, ORA's approach to forecasting expenditures in 2018 and 2019 is unreasonable because it ignores ongoing activities and historical cost trends.

[474] Ex. ORA-11 (Phan) at 78:9-10.
[475] *Id.* at 78:17-24.
[476] *Id.* at 79:6-7.

ORA mistakenly states that there has been a steady downward trend from 2014 to 2016.[477] In fact, as can be observed in the figure below, for this three-year period, there is a clear upward trend that grows at a significantly faster rate than the five-year trend SoCalGas used. In regards to the five-year historical period (2012-2016), apart from 2014, expenditures in Capital Tools have also shown a general upward trend as demonstrated in the figure below.

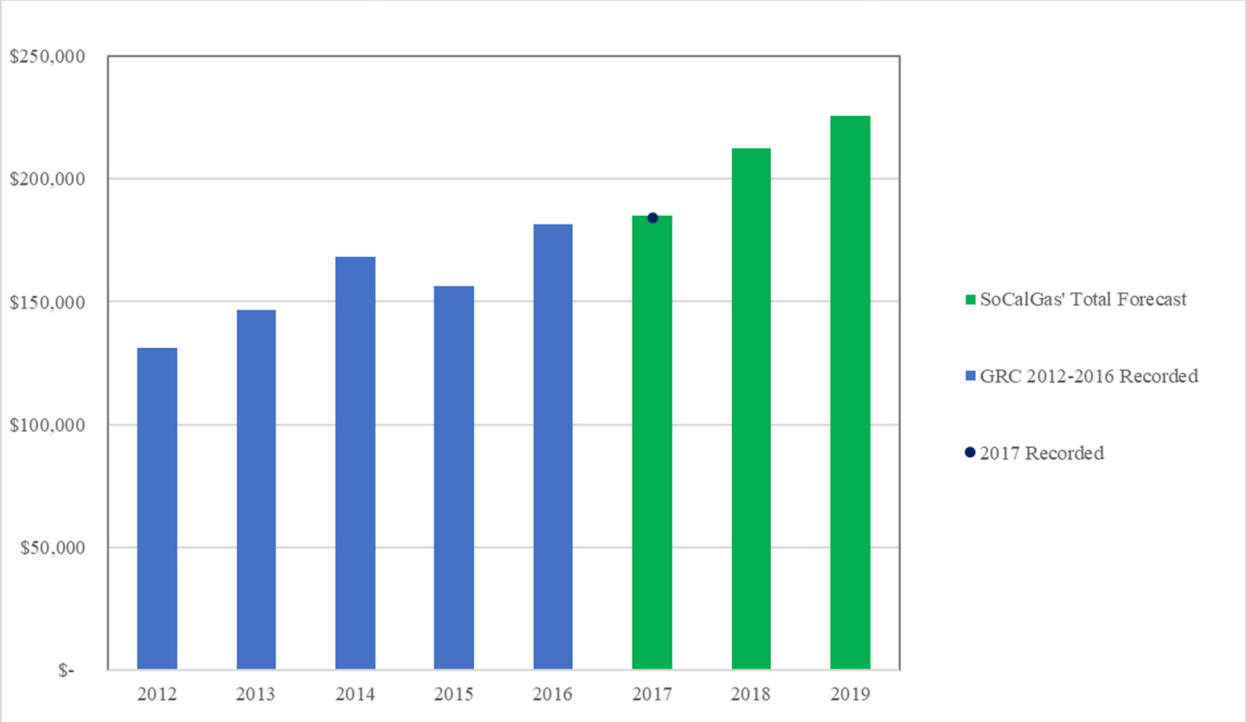
**Figure GOM-30**
**Southern California Gas Company**
**Capital Tools with Three-Year (2012-2016) Trend**
**(Thousands of Constant 2016 Dollars)**




Many of the tools and equipment being utilized in the field contain sensitive components that are subject to shock, vibration, rain, and dusty conditions, which are factors that contribute to their deterioration.[478] Furthermore, work increases in other capital and O&M work categories increase the need for personnel and the tools they use to perform their job.[479] SoCalGas anticipates overall capital construction work and associated costs to continue to increase in an upward direction, as shown in the figure below, and expects the need for tools to increase as well.

[477] *Id.* at 78:24-25.
[478] Ex. SCG-04-R (Orozco-Mejia) at 137:21-23.
[479] *Id.* at 137:23-25.

**Figure GOM-31**
**Southern California Gas Company**
**Total Capital Construction**
**(Thousands of Constant 2016 Dollars)**




The capital tools activity is a mitigation measure supporting key safety risks identified in the RAMP Section II of my revised direct and Section III.B. of this rebuttal testimony. Capital tools address the need to provide personnel the project tools and equipment to safely complete work.

SoCalGas agrees that the 2017 actual expenditures cover the base forecast for 2017, but do not cover the funding necessary for a critical project that was originally scheduled for completion in 2017 and was delayed to 2018, specifically the upgrade of Nomex coveralls and fresh air equipment for employees working in hazardous atmospheres. This item will be discussed further in the section below.

The Commission should reject ORA's proposed forecast because it is incomplete in its analysis, inadequately supported by the facts and does not provide sufficient funding for tools necessary for employees to complete work and provide employee safety. Therefore, the Commission should adopt the SoCalGas five-year linear trend for its base forecast.

### b. SoCalGas' Proposed Incremental Expenditures

#### i. Confined Space Air Monitoring System for Field Personnel

ORA does not take issue with SoCalGas' forecast for an additional $1.100 million to replace the current confined space and H2S monitoring equipment system-wide, to address age-related equipment failures that currently present a potential risk to the safety of employees working in gaseous atmospheres.[480] Non-labor expenses for this activity are estimated to be $1.100 million in 2018.

#### ii. Upgrade Nomex Coveralls and Fresh Air Equipment

ORA did not specifically address this request and simply recommended that the 2017 recorded expenditures in lieu of SoCalGas' 2017 forecast. Given that SoCalGas forecasted this expenditure in 2017, ORA may have assumed that it was part of the 2017 recorded expenses; however, that is not the case. This request will still need to be funded, which would not be accounted for in ORA's use of 2017 recorded expenditures.

SoCalGas requested $1.667 million to upgrade Nomex Coveralls and Fresh Air Equipment. Although this project has experienced some delay, it will be completed in 2018. The importance of this equipment must be given serious consideration in light of the safety it provides to SoCalGas field employees and the community at large. Field personnel working in Immediately Dangerous to Life or Health (IDLH) environments or in flammable atmospheres must wear gas extraction suits and a Supplied Air Respirator (SAR) with an escape bottle or a Self-Contained Breathing Apparatus (SCBA).[481] The manufacturer of the currently used SAR kits no longer supports this equipment.[482] Thus, SoCalGas must implement a system-wide replacement of the SAR kits with SCBA kits, before they start failing, and to keep consistency among the equipment used by operating groups.

In addition, the fire-resistant gloves, currently in use with the gas extraction suits, provide minimal dexterity, making it difficult for field personnel to handle small tools and equipment. By replacing these gloves, it will reduce the risks associated when working in potentially hazardous atmospheres for extended periods of time.

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[480] Ex. ORA-11 (Phan) at 78:10-13.
[481] Ex. SCG-04-R (Orozco-Mejia) at 137:7-10.
[482] *See* ORA-SCG-068-DAO, Question 8.a, attached as Appendix B.

SoCalGas asks the Commission to consider these reasons as justification to authorize this request and to allow SoCalGas adequate means to implement these incremental risk mitigation efforts.

## K. Field Capital Support

**Table GOM-40[483]**
**Southern California Gas Company**
**Gas Distribution Field Capital Support Capital Estimates**
**(Thousands of Constant 2016 Dollars)**

| | Position of Party | | |
|---|---|---|---|
| | ***2017*** | ***2018*** | ***2019*** |
| **SCG** | 61,317 | 70,292 | 74,618 |
| **ORA** | 65,384 | 62,037 | 62,985 |
| ORA - SCG | 4,067 | (8,255) | (11,633) |

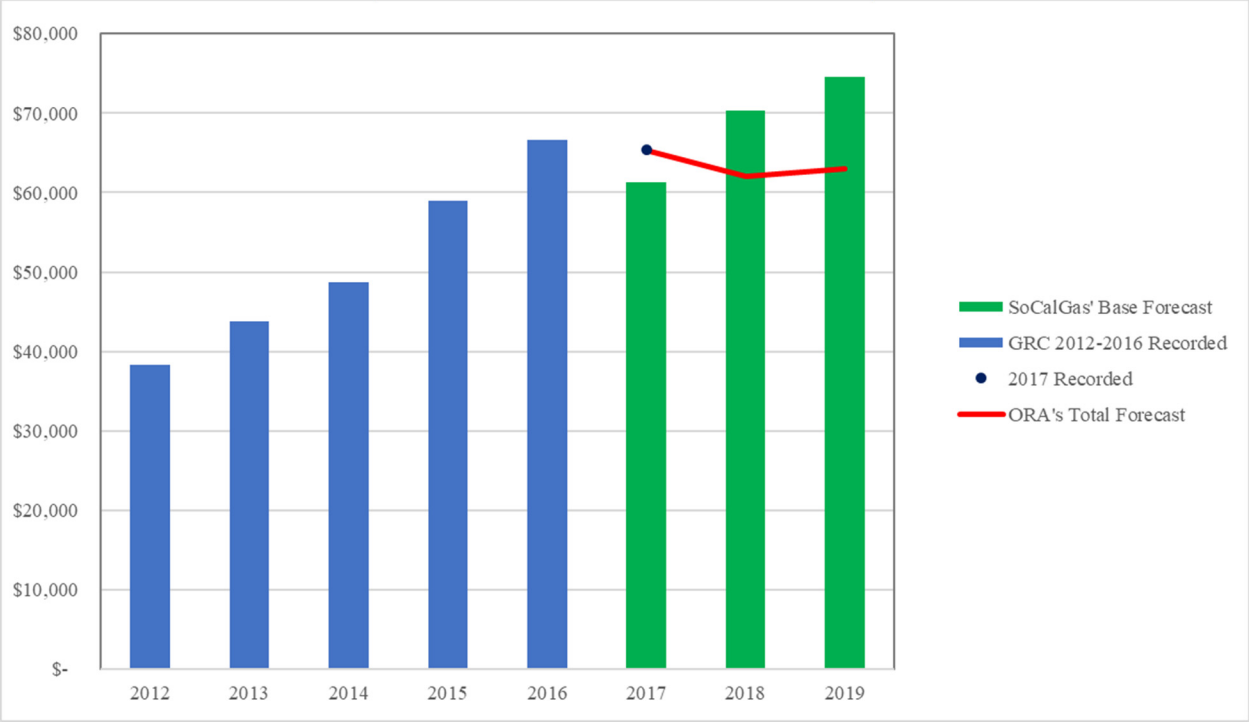
This work category provides the labor and non-labor funding for a broad range of services to support Gas Distribution field capital asset construction.[484] Traditional work categories in this budget include project planning, local engineering, clerical support, field scheduling and dispatch, field management and supervision, updating of mapping products, and off-production time for support personnel and field crews that install Gas Distribution capital assets.[485]

Collectively, the level of support activities, as outlined above, can fluctuate with the level of capital construction activity. Generally, the greater the volume of construction activity, the larger the support costs, as shown by historical data. Due to this relationship, the forecast labor expenditures for this cost category is based on the level of historical costs, as a percentage of construction costs incurred. SoCalGas applied a labor ratio of 32.7% to the overall projected capital construction cost for 2017 to 2019. This labor ratio was determined using the average ratio of the historical five-year period (2012-2016). The non-labor forecast for this workgroup was calculated using the historical (2012-2016) five-year average.

The figure below represents SoCalGas' total forecast, as well as ORA's proposal for this area, which is discussed in the following section.

[483] Please see Appendix A, Item #7 for a detailed review of corrections of ORA's numbers.
[484] Ex. SCG-04-R (Orozco-Mejia) at 138:7-8.
[485] *Id.* at 138:15-18.

**Figure GOM-32**
**Southern California Gas Company**
**Field Capital Support**
**(Thousands of Constant 2016 Dollars)**




### 1. ORA

ORA recommends the 2017 recorded expenditures in lieu of SoCalGas' 2017 forecast, which SoCalGas does not oppose for this area.[486] For 2018 and 2019, ORA did not oppose SoCalGas' forecast methodology, but proposed reductions by applying this methodology to ORA's proposed expenditures in the related construction categories.[487] ORA's proposal results in reductions to SoCalGas' forecast of $8.255 million and $11.633 million in years 2018 and 2019, respectively. SoCalGas disagrees with ORA's recommendations for the reduction of its projected capital construction expenditures.

ORA's proposal contains some calculation errors, such as incorporating the new business trench reimbursements and forfeitures, which are not used to forecast capital construction costs for the purpose of determining Field Capital Support. This error produced a lower forecast

[486] Ex. ORA-11 (Phan) at 81:3-4.
[487] *Id.* at 81:4-7.

amount for Field Capital Support.[488] There were also errors in the Service Replacement and CP categories.

The tables below show ORA's original forecast compared to its corrected forecast. The corrected values have been highlighted in gray. ORA's corrected values, based on its own forecast, are $62.037 million and $62.985 million in 2018 and 2019 respectively, instead of the $57.749 million and $61.985 million stated by ORA.

**Table GOM-41**
**Southern California Gas Company**
**ORA's Original Field Capital Support Forecast**

| | Workpapers for Field Capital Support | ORA Capital Cons. 2018 | ORA Capital Cons. 2019 |
|---|---|---|---|
| 1 | New Business (w/o Forfeitures) | $ 37,212 | $ 47,904 |
| 2 | Pressure Betterment | $ 23,088 | $ 23,088 |
| 3 | Supply Line Replacement | $ 4,209 | $ 4,209 |
| 4 | Main Replacement | $ 33,711 | $ 33,711 |
| 5 | Service Replacement | $ 31,871 | $ 31,871 |
| 6 | Main/Service Abandon | $ 8,988 | $ 8,988 |
| 7 | Regulator Stations | $ 7,531 | $ 7,531 |
| 8 | Cathodic Protection | $ 6,059 | $ 8,322 |
| 9 | Freeway Relocation | $ 3,745 | $ 3,745 |
| 10 | Franchise Relocation | $ 16,891 | $ 16,891 |
| 11 | Other Dist. Capital Projects/Meter Guards | $ 3,297 | $ 3,297 |
| | **Total Construction Costs** | **$ 176,602** | **$ 189,557** |
| | 32.70% | $ 57,749 | $ 61,985 |
| | **Field Capital Support** | **$ 57,749** | **$ 61,985** |

[488] Sempra (SCG) Data Request 5 to ORA, attached as Appendix C.

**Table GOM-42**
**Southern California Gas Company**
**ORA's Corrected Field Capital Support Forecast**

| ORA Response to SCG Data Request 5 | | | |
|---|---|---|---|
| | **Workpapers for Field Capital Support** | ORA Capital Cons. 2018 | ORA Capital Cons. 2019 |
| 1 | New Business (w/o Forfeitures) | $ 50,925 | $ 54,534 |
| 2 | Pressure Betterment | $ 23,088 | $ 23,088 |
| 3 | Supply Line Replacement | $ 4,209 | $ 4,209 |
| 4 | Main Replacement | $ 33,711 | $ 33,711 |
| 5 | Service Replacement | $ 31,470 | $ 30,760 |
| 6 | Main/Service Abandon | $ 8,988 | $ 8,988 |
| 7 | Regulator Stations | $ 7,531 | $ 7,531 |
| 8 | Cathodic Protection | $ 5,860 | $ 5,860 |
| 9 | Freeway Relocation | $ 3,745 | $ 3,745 |
| 10 | Franchise Relocation | $ 16,891 | $ 16,891 |
| 11 | Other Dist. Capital Projects/Meter Guards | $ 3,297 | $ 3,297 |
| | **Total Construction Costs** | **$ 189,715** | **$ 192,614** |
| | 32.70% | $ 62,037 | $ 62,985 |
| | **Field Capital Support** | **$ 62,037** | **$ 62,985** |

Referring to the summary table of the historical expenditures under capital construction costs, expenditures have increased steadily in an upward direction from 2012 to 2016. SoCalGas expects this trend to continue in 2018 and 2019.

Although, SoCalGas assumed a significant efficiency gain by using the five-year average (instead of a linear upward trend as the data supports) to calculate the ratio used to forecast Field Capital Support, it is unreasonable to expect that as the construction support requirements increase, SoCalGas can continue to decrease its Field Capital Support expenditures, as ORA suggests and as shown in the figure above.[489]

As previously discussed, the greater the volume of construction activity, the larger the support costs. These expenditures provide the labor and non-labor funding for a broad range of services to support Gas Distribution field capital asset construction and also support the RAMP mitigation risks SCG-10 Catastrophic Damage Involving Medium-Pressure Pipelines, SCG-4 Catastrophic Damage Involving High-Pressure Pipelines, and SCG-2 Employee, Contractor, Customer and Public Safety.[490] Risk mitigation activities in in this cost category include the inspection of company and contractor crews completing capital work as well as the review of

[489] *See* Ex. ORA-11 (Phan) at 81:11-15.
[490] Ex. SCG-O4-R (Orozco-Mejia) at 14, Table GOM-07.

utility infrastructure conflicts which are safeguards against asset failure and enhance public and employee safety. Furthermore, as mentioned in my revised direct testimony, embedded in this forecast are costs SoCalGas must incur to support the large amount of mapping products requiring updating as construction work continues to increase.[491] The timely maintenance of mapping records is a critical risk mitigation measure to safeguard public and employee safety, maintain system reliability, and protect infrastructure integrity. SoCalGas recognized that additional resources must be hired and trained to respond to this critical work pressure. This cost is included within SoCalGas forecast and therefore, an incremental increase was not added for this upward pressure.

SoCalGas requests the Commission to adopt SoCalGas' forecast for Field Capital Support because it accurately reflects the expenditures needed to continue to support field construction activities and appropriately accounts for the historical spending that will continue to trend upward during this GRC period, and which ORA's recommendation fails to recognize.

**2. CUE**

As discussed throughout this rebuttal, CUE proposed capital expenditure increases for Service Replacements, Regulator Stations, and Supply Line Replacements. CUE then forecasted associated overheads for these increases.

The Gas Distribution witness area does not cover overhead or pool costs other than Field Capital Support. SoCalGas applied a labor ratio of 32.7% to the overall projected capital construction cost for 2017 to 2019 to forecast the appropriate level of field capital support. Therefore, the Commission should adopt SoCalGas' Field Capital Support forecast methodology.

[491] *Id.* at 141:13-19.

## L. Remote Meter Reading

**Table GOM-43**
**Southern California Gas Company**
**Gas Distribution Remote Meter Reading Capital Estimates**
**(Thousands of Constant 2016 Dollars)**

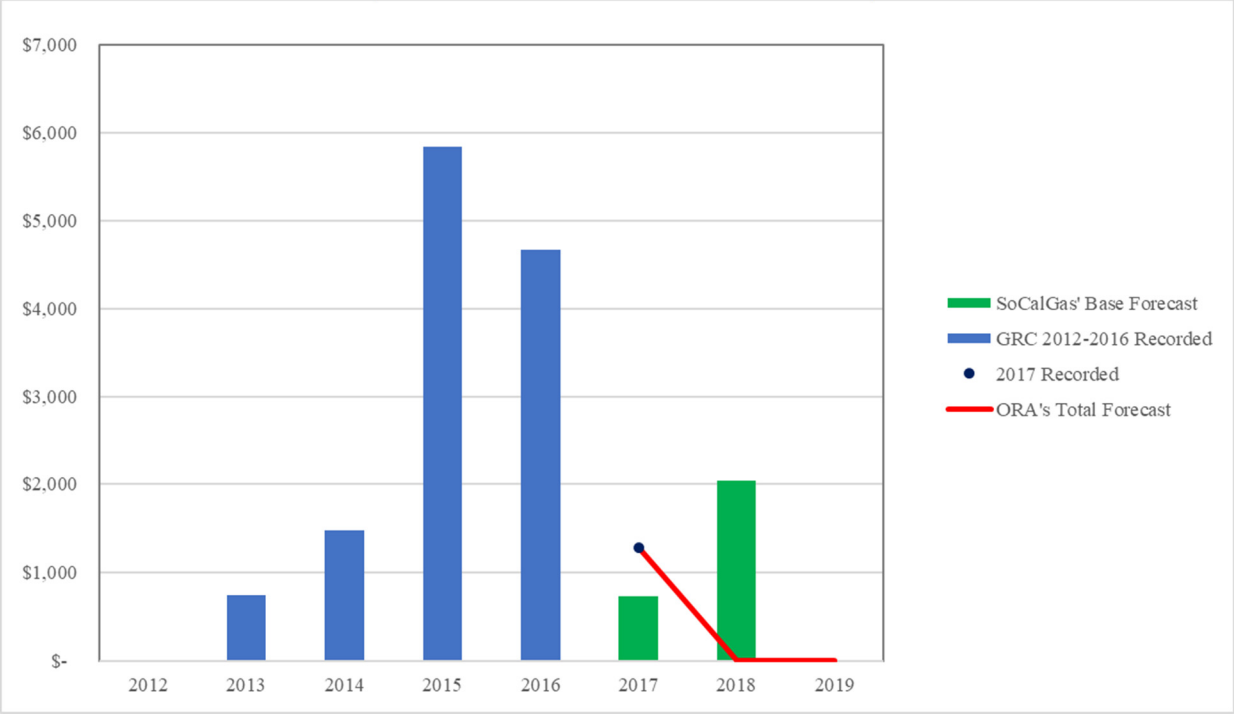
| | Position of Party | | |
|---|---|---|---|
| | ***2017*** | ***2018*** | ***2019*** |
| **SCG** | 727 | 2,032 | - |
| **ORA** | 1,278 | - | - |
| ORA - SCG | 551 | (2,032) | - |

This cost category consists of Customer Service Field (CSF) labor and non-labor expenses for curb meter replacements, as part of the Planned Meter Changeouts (PMC) associated with the Advanced Metering Infrastructure (AMI) implementation.[492] Beginning in 2013, the AMI project assumed responsibility for above-ground PMCs, including both planned and accelerated meter changes and Customer Service Field shifted its focus to curb meter changes.[493]

A zero-based forecasting methodology was used to forecast the expenditures for this capital work category.[494] Costs are primarily driven by work order volumes.[495] The forecast is based on remaining curb meters that have not been advanced as part of AMI implementation.[496] The figure below summarizes historical costs, SoCalGas' forecast and ORA's recommendation.

[492] *Id.* at 142:4-6.
[493] *Id*. at 142:13-15.
[494] *Id.* at 142:23-24.
[495] *Id.* at 142:24.
[496] *Id.* at 142:24-143:1.

**Figure GOM-33**
**Southern California Gas Company**
**Remote Meter Reading**
**(Thousands of Constant 2016 Dollars)**




### 1. ORA

ORA recommends adopting the 2017 recorded expenditure of $1.278 million. However, ORA disputes SoCalGas' request of $2.032 million for 2018. The total capital funding needed for the curb meter replacements for 2017 and 2018 is $2.419 million.[497] ORA's recommended adoption of $1.278 million for 2017 results in a disallowance of the remaining $1.141 million associated with the pending curb meters replacements in 2018.

ORA states that, *"The [AMI] deployment period ended in 2017. Funding for AMI deployment projects also ended in 2017 . . ."*[498] Please see the rebuttal testimony of Witness Rene F. Garcia (Ex. SCG-217) for SoCalGas' response regarding the AMI deployment timeframe.

[497] In response to ORA-SCG-075-DAO, Question 8, SoCalGas discovered a discrepancy in the information submitted in the testimony and workpaper. There are 22,162 curb meters remaining to be upgraded with the AMI technology as of the end of 2016, instead of the 26,600 curb meter count contained in my revised direct testimony, Exhibit SCG-04-R. As a result, the 2017 - 2018 forecast should be reduced by $0.340 million from $2.759 million to $2.419 million.
[498] Ex. ORA-11 (Phan) at 83:17-18.

SoCalGas' acknowledges the curb meter deployment effort's one-year delay due to vendor product manufacturing issues and appreciates ORA's position regarding unanticipated ratepayer impacts in 2018. Therefore, SoCalGas will not contest ORA's recommendation.

## VI. REBUTTAL TO OTHER ISSUES RAISED BY PARTIES

### A. TURN Disputes Clothing and Other Gear Expenses

TURN states that expenses related to clothing and other gear containing the utilities' name and logo (excluding uniforms, hard hats, etc.) are largely promotional and image-building and should not be paid for by ratepayers. TURN claims that since the Commission removed these costs in PG&E's recent rate case, they should be removed from SoCalGas' case as well. For Gas Distribution, the total for 2016 was $44,966.[499] These expenses can be found across various non-shared services and shared services O&M workgroups.

Clothing and other gear with the company name or logo are sometimes provided to employees during safety fairs and safety celebrations. These items are not intended to be promotional or image-building, but rather, they are given to employees in order to recognize accomplishments or to promote safety awareness.

In addition, items containing the utilities' name and logo are used at safety fairs and other civic or community events. They are used so customers recognize SoCalGas representatives and may approach information booths, where personnel, including Regional Public Affairs can share critical information about natural gas safety and assistance programs, as well as rate changes and planned infrastructure work. SoCalGas purchases logo clothing items for Regional Public Affairs team members to wear when they report to a job site, respond to local operational incidents or emergencies, or report to city and county emergency operations centers. The logo clothing allows emergency responders, media, government officials, fellow employees, and customers to readily identify company representatives who can respond to their inquiries and provide important information and updates.

The Commission should not adopt TURN's recommendation to summarily disallow costs of this nature since they are incurred to serve a valid utility business purpose, such as customer education/outreach, business development, or employee recognition.

[499] Ex. TURN-03 (Marcus) at 77-78.

### B. CFC Recommends Reductions Related to Unaccounted for Gas

CFC recommends that Gas Distribution's TY 2019 revenue requirement be reduced by $27.900 million to reflect CFC's estimate for unaccounted for gas.[500]

The Commission already denied the Environmental Defense Fund's request to include lost and unaccounted for gas as a scoping issue in this General Rate Case, stating:

> Issues regarding Lost and Unaccounted for Gas should be raised in Rulemaking 15-01-008 and Southern California Gas Company's (and San Diego Gas & Electric Company's) Triennial Cost Allocation Proceedings as applicable.[501]

For this reason, the Commission should reject CFC's proposal to address unaccounted for gas in this case.

## VII. CONCLUSION

My revised direct testimony, workpapers and SoCalGas' responses to numerous data requests provide substantial justification for the Commission to authorize SoCalGas' Gas Distribution Capital and O&M request. In consideration of the Capital categories, SoCalGas does not oppose ORA's use of 2017 recorded costs as its 2017 forecasts. As described in this rebuttal testimony, the proposals of the intervenors to reduce funding are based on inappropriate forecasting methodology, inaccurate assumptions, incomplete understanding of SoCalGas' natural gas pipeline operations, and/or discounting of information presented by SoCalGas.

It is important to note the following overall observations:

- SoCalGas' base forecast was determined after a careful analysis of the past, current, and future cost drivers. The incremental work activities not reflected in this base forecast were added to adequately fund future operations and conditions and to support the mitigation of key RAMP risks.
- ORA's forecasts include some calculation errors and data omissions.
- ORA's forecasts are patently unreasonable as recommendations are below historical spending levels (e.g., Leak Survey and Service Maintenance).

[500] Ex. CFC-03-R (Roberts) at 11.
[501] A.17-10-007/-008 (cons.), Assigned Commissioner's Ruling on Lost and Unaccounted for Gas Issue (issued March 8, 2018) at 3.

- ORA's LRY forecast methodology is inappropriate in its reliance on the two CPUC decisions in 1989 and 2015 for mischaracterizing the LRY method as mandatory, especially in trend scenarios.
- ORA's application of the LRY methodology is inconsistent and selective.
- ORA's unadjusted LRY methodology disregards funding for incremental work pressures embedded in the trend forecast.
- While CUE proposes increases to SoCalGas' forecast, SoCalGas does not agree with some aspects of CUE's discussion that contain incorrect assumptions.
- TURN's reductions are based on incorrect assumptions and a misunderstanding of SoCalGas' forecast.
- CFC's reduction is based on incorrect data.

These observations are discussed in more detail in the specific related rebuttal sections above.

SoCalGas faces a number of challenges affecting both the physical operation of the pipeline system and cost management aspects of its business that contribute to the base forecast methodologies and incremental activities presented in my revised direct testimony. These challenges include:

- Trained and Qualified Workforce – Maintaining a skilled workforce is critical to SoCalGas' continued success. It is only through the efforts of these employees that SoCalGas is able to continue to deliver reliable service to customers and maintain its pipeline infrastructure. SoCalGas is experiencing increased pressures associated with maintaining a highly trained and qualified workforce.
- Aging Infrastructure – SoCalGas has a long history of delivering safe and reliable natural gas service for over 50 years. Maintenance practices have allowed SoCalGas to safely and reliably operate these pipeline facilities for this extended period of time, but this cannot continue forever. As the Company's pipeline infrastructure and facilities continue to age, they require higher levels of maintenance, which results in higher costs.
- System Expansion – SoCalGas' pipeline system continues to expand as new construction adds to the customer base and the need for pipeline infrastructure.

- Regulatory Changes – In addition to economic growth and system expansion, SoCalGas must comply with increasing regulation requirements that are anticipated to impact SoCalGas' processes, costs and work during this GRC cycle.
- RAMP – As the first time RAMP-to-GRC integration for California utilities, SoCalGas has placed an impetus on safety and efficiency as discussed in this rebuttal and my revised testimony, specifically with regards to costs to mitigate RAMP risks for SCG-1 Catastrophic Damage Involving Third Party Dig-Ins, SCG-2 Employee, Contractor, Customer and Public Safety, SCG-4 Catastrophic Damage Involving High-Pressure Pipeline Failure, and SCG-10 Catastrophic Damage Involving Medium-Pressure Pipeline.

SoCalGas' TY 2019 O&M and 2017, 2018, and 2019 Capital forecasts are reasonable estimates of future requirements and should be adopted by the Commission.

This concludes my prepared rebuttal testimony.

## Appendix A – Intervenor Calculation Corrections

**Item #1 – O&M Main Maintenance – TURN**

In TURN's testimony, it states that its recommended base forecast for Main Maintenance is the five-year average; however, its forecast ($12.413 million) is actually equal to the five-year trend of the 2012-2016 actual spending.[1] A five-year 2012-2016 average forecast would have been $12.714 million, as TURN provided in its discussion of the various forecasting options.[2]

**Table GOM-A-1**
**Southern California Gas Company**
**TURN's Main Maintenance O&M Test Year 2019 Estimates**
**(Thousands of Constant 2016 Dollars)**

| | 2012 | 2013 | 2014 | 2015 | 2016 | **TURN's TY 2019 Estimate, Corrected 5-Year Average** | ***TURN's TY 2019 Estimate, as Provided on Page 4[3]*** |
|---|---|---|---|---|---|---|---|
| Recorded | 13,302 | 9,773 | 16,103 | 13,008 | 11,383 | | |
| **Base Forecast** | | | | | | **12,714** | ***12,413*** |

**Item #2 – O&M Field Support – ORA**

In ORA's testimony, Table 11-4, it recommended $19.821 million for TY 2019 in Field Support. ORA does not dispute the incremental Office Instructors, Field Operations Supervisors, Hydraulic Valve Maintenance, RAMP Confined Space Equipment, and Fueling our Future savings.[4] The total of these incremental activities plus ORA's recommended base forecast using the average of 2016 and 2017 actuals, does not accurately add up to the total provided in Table 11-4.

[1] Ex. TURN-09 (Hawiger) at 4:1-3.
[2] Ex. TURN-09 (Hawiger) at 3:8-10.
[3] Ex. TURN-09 (Hawiger) at 4:1-3. $11.169 million total forecast + 1.244 million FOF credits = $12.413 million base forecast.
[4] Ex. ORA-11 (Phan) at 34-36.

**Table GOM-A-2**
**Southern California Gas Company**
**ORA's Field Support O&M Test Year 2019 Estimates**
**(Thousands of Constant 2016 Dollars)**

| | SoCalGas | **ORA's TY 2019 Estimate, Corrected** | ***ORA's TY 2019 Estimate, as Provided in Table 11-4*** |
|---|---|---|---|
| Base Forecast | 20,580 | 19,229 | |
| Office Instructors | 105 | 105 | |
| Field Operations Supervisors | 945 | 945 | |
| Hydraulic Valve Maintenance | 5 | 5 | |
| RAMP Confined Space | 20 | 20 | |
| Fueling Our Future | (586) | (586) | |
| **Subtotal** | **21,069** | **19,718** | ***19,821*** |

**Item #3 – Capital New Business – ORA**

In Table 11-24, ORA recommends the 2018 New Business forecast to be $37.212 million.[5] ORA does not dispute SoCalGas' New Business Construction forecast for 2018, however, the forecast SoCalGas proposed is $50.925 million, not the $45.313 million ORA used in its calculation. ORA incorrectly used SoCalGas' total 2018 New Business forecast as its 2018 New Business Construction forecast. Using the correct New Business Construction forecast value, ORA's forecast should be $42.824 million, not the $37.212 million it provided.

**Table GOM-A-3**
**Southern California Gas Company**
**ORA's New Business 2018 Capital Estimate**
**(Thousands of Constant 2016 Dollars)**

| | SCG 2018 | **ORA 2018, Corrected** | ***ORA 2018, as Provided for Table 11-24*** |
|---|---|---|---|
| New Business Construction | 50,925 | 50,925 | ***45,313*** |
| New Business Forfeitures | (6,309) | (8,798) | ***(8,798)*** |
| New Business Trench Reimbursements | 697 | 697 | ***697*** |
| **Subtotal** | **45,313** | **42,824** | ***37,212*** |

[5] Ex. ORA-11 (Phan) at 47-48.

**Item #4 – Capital Service Replacements – ORA**

In Table 11-2, ORA provides $31.871 million as the 2018 Service Replacement forecast; however, in the Service Replacements area of testimony, it states that it does not take issue with SoCalGas' 2018 Service Replacement forecast of $31.470 million.[6] In Table 11-33, ORA then provides the correct 2018 forecast as $31.470 million. It appears that the $31.871 million recommendation provided in ORA's overall Capital Expenditures table was simply a typo.

In Tables 11-2 and 11-33, ORA provides $31 .871 million as the 2019 Service Replacement forecast and recommends using a two-year average of 2016 and 2017 recorded spending to forecast 2019 expenditures.[7] Using the recorded values from ORA's testimony, the 2016 value from Table 11-34, and 2017 value from Table 11-33, the two-year average is $30.760 million, not the $31.871 million that ORA provided.

**Table GOM-A-4**
**Southern California Gas Company**
**ORA's Service Replacements 2019 Capital Estimate**
**(Thousands of Constant 2016 Dollars)**

| | SCG Recorded 2016 | SCG Recorded 2017 | **ORA 2019, Corrected** | ***ORA 2019, as Provided in Table 11-33*** |
|---|---|---|---|---|
| | 26,315 | 35,205 | | |
| **Two Year Average** | | | **30,760** | ***31,871*** |

**Item #5 – Capital Service Replacements – CUE**

In testimony, CUE states that they are using SoCalGas' 2019 base forecast for Service Replacements; however, CUE incorrectly provides $33.403 million as SoCalGas' forecast.[8] SoCalGas' base forecast was $34.403 million. Using the correct base forecast, CUE's total forecast should have been $35.182 million after its $0.779 million addition for incremental service replacements.

[6] Ex. ORA-11 (Phan) at 4 and 57.
[7] *Id.*
[8] CUE (Marcus) at 16.

**Table GOM-A-5**
**Southern California Gas Company**
**CUE's Service Replacements 2019 Capital Estimate**
**(Thousands of Constant 2016 Dollars)**

| | SoCalGas 2019 | **CUE 2019, Corrected** | ***CUE 2019, as Provided on Page 16*** |
|---|---|---|---|
| Base Forecast | 34,403 | 34,403 | *33,403* |
| Older Steel Replacements | 0 | 779 | *799* |
| **Subtotal** | **34,403** | **35,182** | ***34,182*** |

**Item #6 – Capital Cathodic Protection – ORA**

In Table 11-40 in ORA's testimony, ORA recommends the 2018 Cathodic Protection Capital forecast to be $6.059 million. ORA recommends using a three-year average (2015-2017) as the base forecast for 2018 expenditures. Additionally, ORA does not dispute the Remote Monitoring Units (RMUs) incremental increase of $1.999 million for 2018.[9] The calculated 2018 expenditure should be $7.859 million instead of the $6.059 million ORA provided in Table 11-40.

**Table GOM-A-6**
**Southern California Gas Company**
**ORA's Cathodic Protection Capital 2018 Capital Estimate**
**(Thousands of Constant 2016 Dollars)**

| | SCG 2018 | **ORA 2018, Corrected** | ***ORA 2018, as Provided for Table 11-40*** |
|---|---|---|---|
| Base Forecast | 6,435 | 5,860 | |
| Remote Monitoring Units | 1,999 | 1,999 | |
| **Subtotal** | **8,434** | **7,859** | ***6,059*** |

**Item #7 – Field Capital Support – ORA**

The corrections to the 2018 and 2019 forecasts referenced in Items 3, 4, and 6 above affect the forecast calculation for Field Capital Support. The Field Capital Support forecast for 2018 and 2019 expenditures rely on a percentage of construction costs incurred for the capital activities listed in the table below. ORA does not dispute SoCalGas' methodology and average

[9] Ex. ORA-11 (Phan) at 66-67.

support ratio of 32.7% of construction costs. This percentage is then applied to the 2018 and 2019 expenditures.[10] Although ORA applies the correct ratio/percentage, it uses incorrect forecasted expenditures for New Business Construction, Cathodic Protection Capital, and Service Replacements.

For New Business Construction, ORA applies New Business Construction *after* forfeitures and trench reimbursements, which is incorrect. For Cathodic Protection, ORA applies the total Cathodic Protection Capital expenditures, which includes incremental cost. However, the incremental cost should have been omitted. Finally, ORA applies an incorrect Service Replacement forecast, as mentioned above. Table 11-53 in ORA's testimony recommends $57.749 million in 2018 and $61.985 million in 2019. Applying the correct forecast for the three categories results in $62.037 million and $62.985 million for 2018 and 2019 Field Capital Support expenditures respectively.

**Table GOM-A-7**
**Southern California Gas Company**
**ORA's Field Capital Support Capital Estimates, As Provided**
**(Thousands of Constant 2016 Dollars)**

| | **Workpapers for Field Capital Support** | ORA Capital Cons. 2018 | ORA Capital Cons. 2019 |
|---|---|---|---|
| 1 | New Business (w/o Forfeitures) | $ 37,212 | $ 47,904 |
| 2 | Pressure Betterment | $ 23,088 | $ 23,088 |
| 3 | Supply Line Replacement | $ 4,209 | $ 4,209 |
| 4 | Main Replacement | $ 33,711 | $ 33,711 |
| 5 | Service Replacement | $ 31,871 | $ 31,871 |
| 6 | Main/Service Abandon | $ 8,988 | $ 8,988 |
| 7 | Regulator Stations | $ 7,531 | $ 7,531 |
| 8 | Cathodic Protection | $ 6,059 | $ 8,322 |
| 9 | Freeway Relocation | $ 3,745 | $ 3,745 |
| 10 | Franchise Relocation | $ 16,891 | $ 16,891 |
| 11 | Other Dist. Capital Projects/Meter Guards | $ 3,297 | $ 3,297 |
| | **Total Construction Costs** | **$ 176,602** | **$ 189,557** |
| | 32.70% | $ 57,749 | $ 61,985 |
| | **Field Capital Support** | **$ 57,749** | **$ 61,985** |

[10] Ex. ORA-11 (Phan) at 80-81.

**Table GOM-A-8**
**Southern California Gas Company**
**ORA's Field Capital Support Capital Estimates, Corrected**
**(Thousands of Constant 2016 Dollars)**

| | ORA Response to SCG Data Request 5 | | |
|---|---|---|---|
| | **Workpapers for Field Capital Support** | ORA Capital Cons. 2018 | ORA Capital Cons. 2019 |
| 1 | New Business (w/o Forfeitures) | $ 50,925 | $ 54,534 |
| 2 | Pressure Betterment | $ 23,088 | $ 23,088 |
| 3 | Supply Line Replacement | $ 4,209 | $ 4,209 |
| 4 | Main Replacement | $ 33,711 | $ 33,711 |
| 5 | Service Replacement | $ 31,470 | $ 30,760 |
| 6 | Main/Service Abandon | $ 8,988 | $ 8,988 |
| 7 | Regulator Stations | $ 7,531 | $ 7,531 |
| 8 | Cathodic Protection | $ 5,860 | $ 5,860 |
| 9 | Freeway Relocation | $ 3,745 | $ 3,745 |
| 10 | Franchise Relocation | $ 16,891 | $ 16,891 |
| 11 | Other Dist. Capital Projects/Meter Guards | $ 3,297 | $ 3,297 |
| | **Total Construction Costs** | **$ 189,715** | **$ 192,614** |
| | 32.70% | $ 62,037 | $ 62,985 |
| | **Field Capital Support** | **$ 62,037** | **$ 62,985** |

## Appendix B – Data Requests (SoCalGas' response)

CUE-SCG-DR-003 Question 183, and 189.b.vi.

ORA-SCG-045-DAO Question 1, 1.a., 2.a., and 2.b.

ORA-SCG-046-DAO Question 4

ORA-SCG-050-DAO Question 1.b.

ORA-SCG-053-DAO Question 3, and 5

ORA-SCG-054-DAO Question 3

ORA-SCG-062-DAO Question 1, 2.a., 2.b., 2.d., 2.e., 7.a., 7.b., 7.c., and 7.d.

ORA-SCG-064-DAO Question 2

ORA-SCG-065-DAO Question 7, and 8.a.

ORA-SCG-068-DAO Question 8.a.

ORA-SCG-075-DAO Question 8

ORA-SCG-085-DAO Question 1.c., 2, and 2.a.

ORA-SCG-093-DAO Question 1.b.

TURN DR-SEU-018 Question 13.a.

TURN DR-SEU-030 Question 1.c.

**CUE DATA REQUEST**
**CUE-SCG-DR-03**
**SOCALGAS 2019 GRC – A.17-10-008**
**SOCALGAS RESPONSE**
**DATE RECEIVED: JANUARY 8, 2018**
**DATE RESPONDED: FEBRUARY 8, 2018**

183. Ex. SCG-4, p. 35:1-11, discusses increased costs due to USA ticket price increases

a. For USA South, please provide the actual number of distribution tickets in each of the years 2012-17, inclusive, and explain any differences from the data shown in section A of Ex. SCG-4-WP, p. 19.

b. For USA South, please provide the forecasted number of distribution tickets in each of the years 2018 and 2019, and explain any differences from the data shown in section B of Ex. SCG-4-WP, p. 19.

c. For USA South, please provide the total (not incremental as shown in section C of Ex. SCG-4-WP, p. 19) cost per ticket for each year from 2012-2019, inclusive.

d. For USA North, please provide the actual number of distribution tickets in each of the years 2012-17, inclusive.

e. For USA North, please provide the forecasted number of distribution tickets in each of the years 2018 and 2019

f. For USA North, please provide the total cost per ticket for each year from 2012-2019, inclusive.

g. To the extent the sum of USA South tickets in the response to subpart a of this question and USA North tickets in the response to subpart d of this question does not match the total number of SCG distribution tickets shown in Ex. SCG-4-WP, p. 18, please provide a quantitative reconciliation of the difference(s).

**SoCalGas Response 183:**

a. The number of USA South distribution tickets for SoCalGas are provided in the table below. These numbers consist of each ticket sent to SoCalGas from USA South which includes new USA tickets along with remarking tickets, already expired renewal tickets, additional information needed tickets, no show tickets, and update tickets. The numbers in section (a) from SCG-04-WP page 19 provide the number of new USA South tickets only.

| Total SoCalGas Distribution USA South Tickets | | | | | | |
|---|---|---|---|---|---|---|
| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
| USA South Tickets | 420,382 | 451,384 | 502,122 | 527,802 | 521,105 | 550,680 |

**SoCalGas Response Continued 183:**

b. Please refer to SCG-04-WP page 19, column B for forecasted new USA South tickets.

c. From 2012- July 2017, the cost for each new ticket from USA South was $1.50; from July 2017 and forward, the cost per ticket has increased to $1.65. The costs shown below represents the cost of the ticket only. The table below shows the historical new USA South tickets from section (a) of SCG-04-WP on page 19. The 2017 -TY 2019 values are from column B of SCG-04-WP.

| In nominal dollars | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | TY2019 |
|---|---|---|---|---|---|---|---|---|
| Total NEW USA South tickets | 254,874 | 276,364 | 301,172 | 315,195 | 306,464 | 364,063 | 384,025 | 400,222 |
| Total Cost of NEW Tickets | $ 382,311 | $ 414,546 | $ 451,758 | $ 472,793 | $ 459,696 | $ 573,399 | $ 633,641 | $ 660,366 |

d. The number of USA North distribution tickets for SoCalGas are provided in the table below. These numbers consist of each ticket sent to SoCalGas from USA North, which includes new USA tickets along with remarking tickets, already expired renewal tickets, additional information needed tickets, no show tickets, and update tickets.

| Total SoCalGas Distribution USA Tickets | | | | | | |
|---|---|---|---|---|---|---|
| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
| USA North Tickets | 113,792 | 126,131 | 138,555 | 123,056 | 106,011 | 109,814 |

e. As discussed above, SoCalGas forecasted located and mark base costs for the years 2017 through TY 2019 based on the historical linear trend observed during the five-year period 2012 through 2016. SoCalGas did not forecast the number of USA tickets expected for the years 2017 through 2019 for USA North.

f. USA North rates are based on a tier contracted fee structure based on the number of miles of SoCalGas' mains and services within the USA North territory; therefore, a cost per ticket is not available for USA North tickets.

g. The sum of subparts 183.a and 183.d totals match to the numbers provided in Ex. SCG-04-WP page 18.

**CUE DATA REQUEST**
**CUE-SCG-DR-03**
**SOCALGAS 2019 GRC – A.17-10-008**
**SOCALGAS RESPONSE**
**DATE RECEIVED: JANUARY 8, 2018**
**DATE RESPONDED: FEBRUARY 8, 2018**

189. Ex. SCG-4, pp. 52:27-54:4, discusses Leak Repairs.

a. Is it correct that SB 1371 work is focused on Grade 3 leaks and this section of SCG's testimony addresses repairs to Grade 1 and 2 leaks, so that there is no overlap between the two sets of leak repair costs? If not, please explain.

b. To clarify SCG's discussion of backlogged leak repairs, and the additional data regarding leak repair quantities in Ex. SCG-04, p. 85:21-24) please provide a table showing the following data for each year from 2012-17, inclusive (actuals) and 2018-22, inclusive (forecast):

i. Start of year backlog of known-but-not-yet repaired leaks, by Grade
ii. Number of those already-known leaks repaired during the year, by Grade

iii. New leaks detected that year, by Grade

iv. Number of those newly detected leaks repaired during that same year that they were detected

v. If disaggregated data requested in subparts (ii) and (iv) is not available, please provide the total number of leaks repaired during the year, by Grade

vi. Average cost per leak repaired, by grade if available and otherwise in aggregate, for that year

c. Please confirm that the forecast data provided in response to subpart (b) of this question accounts for changes in leak find rates expected to occur due to changes in leak inspection cycles.

d. Please describe any planned changes in leak detection technologies, and their expected impacts on the leak detection rates and leak repair rates provided in the responses to subpart (b) of this question.

**CUE DATA REQUEST**
**CUE-SCG-DR-03**
**SOCALGAS 2019 GRC – A.17-10-008**
**SOCALGAS RESPONSE**
**DATE RECEIVED: JANUARY 8, 2018**
**DATE RESPONDED: FEBRUARY 8, 2018**

**SoCalGas Response 189:**

a. In general, the best practices addressed by SB 1371 focus on methane emission reductions, while the GRC request for Gas Distribution focuses on SoCalGas' funding forecast required to operate and maintain its natural gas distribution system and construct new gas distribution facilities. There is no overlap between the best practices proposed as part of SB 1371 and the funding request for Gas Distribution in the TY 2019 GRC. SB 1371 Rulemaking 15-01-008, is a separate proceeding being handled outside of the GRC proceeding. The request in the GRC includes leak repairs for all code types found during the routine work as well as the incremental work addressing the leak inventory. SB 1371 includes incremental leaks associated with the proposed best practices and could be leaks of any code. This work is not included in the GRC request.

b.

i. Please see the table below regarding the inventory of known-but-not-yet repaired leaks by grade for 2012 through 2017.

| Grade of Leak | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|
| **Code 1** | 160 | 144 | 244 | 281 | 284 | 211 |
| **Code 2** | 988 | 482 | 497 | 543 | 539 | 586 |
| **Code 3** | 7,132 | 7,287 | 7,997 | 7,604 | 8,764 | 9,777 |
| **AG Hazardous** | - | - | - | 35 | 51 | 22 |
| **AG Non-Hazardous** | - | - | - | 133 | 157 | 57 |
| **Total** | 8,280 | 7,913 | 8,738 | 8,596 | 9,795 | 10,653 |

ii. Please see the table below regarding the number of already-known leaks repaired by grade for the years of 2012 through 2017.

| Grade of Leak | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|
| **Code 1** | 143 | 139 | 235 | 262 | 271 | 185 |
| **Code 2** | 975 | 473 | 493 | 526 | 530 | 551 |
| **Code 3** | 2,235 | 2,436 | 3,737 | 2,388 | 2,490 | 4,189 |
| **AG Hazardous** | - | - | - | 29 | 49 | 21 |
| **AG Non-Hazardous** | - | - | - | 129 | 157 | 55 |
| **Total** | 3,353 | 3,048 | 4,465 | 3,334 | 3,497 | 5,001 |

iii. Please see the table below regarding the number of new leaks detected by grade for 2012 through 2017.

| Grade of Leak | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|
| **Code 1** | 6,698 | 6,839 | 6,499 | 5,842 | 5,790 | 6,908 |
| **Code 2** | 2,925 | 3,263 | 2,224 | 1,309 | 1,266 | 1,583 |
| **Code 3** | 3,090 | 4,680 | 5,318 | 4,750 | 4,497 | 4,836 |

| | | | | | | |
|---|---|---|---|---|---|---|
| **AG Hazardous** | - | - | 1,010 | 1,772 | 1,591 | 1,419 |
| **AG Non-Hazardous** | - | - | 2,098 | 3,620 | 2,767 | 3,424 |
| **Total** | 12,713 | 14,782 | 17,149 | 17,293 | 15,911 | 18,170 |

iv. Please see the table below regarding the number of newly detected leaks repaired within the same year of detection during 2012 through 2017.

| 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|
| 9,727 | 10,909 | 12,826 | 12,760 | 11,556 | 13,066 |

v. Please see the table below for the total number or leaks repaired during 2012 through 2017 by grade.

| Grade of Leak | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|
| **Code 1** | 6,714 | 6,739 | 6,462 | 5,839 | 5,863 | 6,604 |
| **Code 2** | 3,431 | 3,248 | 2,178 | 1,313 | 1,219 | 1,308 |
| **Code 3** | 2,935 | 3,970 | 5,711 | 3,590 | 3,484 | 5,495 |
| **AG Hazardous** | - | - | 975 | 1,756 | 1,620 | 1,423 |
| **AG Non-Hazardous** | - | - | 1,965 | 3,596 | 2,867 | 3,237 |
| **Total** | 13,080 | 13,957 | 17,291 | 16,094 | 15,053 | 18,067 |

vi. Please see the table below.

| Average Unit Cost | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|
| **Leak Repair - Main** | $1,998 | $1,885 | $ 2,031 | $ 2,531 | $ 2,634 | $ 2,703 |
| **Leak Repair - Service** | $ 615 | $ 554 | $ 541 | $ 593 | $ 658 | $ 826 |

c. SoCalGas objects to all portions of this question requesting 2020-2022 forecasts 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 used the historical (2012-2016) five-year expense trend plus incremental to forecast the amount of expenditures needed to address the growing number of leaks in the system for 2017-2019.

**SoCalGas Response Continued 189:**

d. SoCalGas objects to this request as overly broad, unduly burdensome, vague and ambiguous with respect to the phrase "planned changes in leak detection technologies," and exceeding the scope of permissible discovery under Rule 10.1, of the Commission's Rules of Practice and Procedure. SoCalGas further objects to the request in that it seeks information that may be outside the scope of this proceeding, as changes in leak detection technologies, and their expected impacts on the leak detection rates and leak repair rates are part of the scope of the SB 1371 Rulemaking 15-01-008. Subject to and without waiving the foregoing objection, SoCalGas responds as follows:

SoCalGas has no plans to change the current leak detection technologies at this time; however, on an ongoing basis, SoCalGas conducts testing of available technologies.

**ORA DATA REQUEST**
**ORA-SCG-045-DAO**
**SOCALGAS 2019 GRC – A.17-10-008**
**SOCALGAS RESPONSE**
**DATE RECEIVED: DECEMBER 12, 2017**
**DATE RESPONDED: JANUARY 12, 2018**

**Exhibit Reference:** SCG-04 and SCG-14
**SCG Witness:** Gina Orozco-Mejia and Ms. Martinez
**Subject:** Gas Distribution O&M Expenses, Leak Survey

**Please provide the following:**

1. Referring to SCG's testimony, page GOM-38, lines 27-29, please provide the following information:

   a. Provide the number of miles of high-pressure transmission pipelines or supply lines currently in SCG's system;

   b. Provide the number of miles of supply lines surveyed for leaks and annual expenses incurred for each year from 2012-2017;

   c. Were the supply lines surveyed under the Transmission Integrity Management Program or the Distribution Integrity Management Program from 2012-2016? If yes, please provide the number of miles surveyed under the TIMP or DIMP for each year from 2012-2016;

   d. Please provide a reference to the Department of Transportation or DOT leak survey requirement(s) as stated on line 27; and

   e. Please provide a copy of all annual reports SCG submitted to the CPUC as part of the requirements of G.O. 112-F, sections 123.1 and 123.2, if and when available.

**SoCalGas Response 1:**

a. Page GOM-38, lines 27-29 references the high-pressure (over 60 psig) lines managed by Gas Distribution, known as "supply lines." This includes both DOT defined transmission lines and high-pressure lines that do not meet the DOT definition of transmission lines. SoCalGas continuously evaluates the number of miles in high-pressure pipelines in its system. After further evaluation, SoCalGas determine that the number of high-pressure pipeline miles managed by Gas Distribution is closer to 3,994 miles. There are 714 miles of high-pressure supply lines that are reported on the DOT Transmission Report and 3,280 miles of supply lines in the SoCalGas Gas Distribution system.

b. SoCalGas does not track leak survey costs to this level of granularity. All leak survey conducted by Gas Distribution is recorded in the Leak Survey cost category, regardless of pipe category or survey cycle.

c. SoCalGas surveys supply lines as required by GO 112-F, however this activity is not part of the Transmission Integrity Management Program or the Distribution Integrity Management Program.

d. SoCalGas is referencing GO 112-F section 143.1.(b), which states:

*"A gas leakage survey of transmission pipelines, using leak detecting equipment must be conducted at least twice each year and at intervals not exceeding 7 ½ months."*

e. The first GO 112-F annual report is due March 15, 2018 for 2017 results; therefore, reports related to the requirements of Section 123 of GO 112-F will be available on this date. The following attached PDFs provide a copy of all annual DOT-D reports SCG submitted to the CPUC; "DR-045_Q1E_2012_SCG_Supplemental_DOT-D_report.pdf" "DR-045_Q1E_2013_SCG_Supplemental_DOT-D_report.pdf" "DR-045_Q1E_2014_SCG_Supplemental_DOT-D_report.pdf" "DR-045_Q1E_2015_SCG_Supplemental_DOT-D_report.pdf" and "DR-045_Q1E_2016_SCG_Supplemental_DOT-D_report.pdf"

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**SOCALGAS 2019 GRC – A.17-10-008**
**SOCALGAS RESPONSE**
**DATE RECEIVED: DECEMBER 12, 2017**
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2. Referring to SCG's testimony page GOM-39, lines 3-4, please provide the following:

a. Please explain in detail and provide supporting documents to show how SCG determined the impacted mileage in 2017 and 2018 to be 690 miles and state the number of miles to be surveyed each year;

b. As of November 30, 2017, how many miles of the impacted mileage has SCG surveyed?

c. Of the total number of miles surveyed as of November 30, 2017, provide the number of leaks found classified by leak grade and the expense incurred;

d. Does SCG expect to be in compliance with G.O. 112-F by December 31, 2017?

e. Please explain in detail and provide supporting documents to show how SCG determined the number of impacted pipe mileage will be approximately 3,700 miles by 2019.

f. Did SCG categorize supply lines survey as part of TIMP or DIMP from 2012-2016? If yes:

i. Is SCG requesting funding for this work activity as part of its DIMP or TIMP 2019 forecast?

ii. Identify the expense requested and provide a reference to SCG's testimony and/or workpapers.

**SoCalGas Response 2:**

a. SoCalGas changed its leak survey requirements to align with the additional requirements prescribed by GO 112-F. The requirements are reflected in Gas Standard 223.0100 attached to this response and became effective in January of 2017. For SoCalGas' Gas Distribution, this meant that all DOT-defined transmission pipeline segments moved to a six-month survey cycle from an annual survey. This accounted for the incremental increase in six-month survey. SoCalGas calculated that this requirement would increase the leak survey activity for Gas Distribution by 690 miles each year. The accompanying attachment "GS_223.0100_Redacted.pdf" has been redacted to remove non-responsive, non-relevant employee information.

b. As of November 30, 2017, SoCalGas' Gas Distribution has surveyed approximately 1,538 miles as part of the six-month survey cycle.

c. SoCalGas has found approximately 23 below ground leaks from the six-month survey cycle, referenced in GOM-39, lines 3-4. Please see the table below for leak grades and estimated expenses for resolved leaks. SoCalGas does not track total costs by leak code therefore the costs provided below are based on the estimated unit cost of $2,500 as referenced on page 58 in workpapers SCG-04-WP_GDIST. Please note that the estimated expenses represent the average labor and non-labor costs for leak repairs. A breakdown of costs for unresolved leaks is not available by Leak Code.

| **Leak Code** | **Count of Leak ID** | **Resolved Leaks** | | **Unresolved leaks** |
|---|---|---|---|---|
| | | # of resolved leaks | Expenses | # of unresolved leaks |
| Code 1 | 5 | 5 | $12,500 | 0 |
| Code 2 | 13 | 11 | $27,500 | 2 |
| Code 3 - Steel | 5 | 2 | $5,000 | 3 |
| **Grand Total** | **23** | **18** | **$45,000** | **5** |

d. Yes, SoCalGas is in compliance with GO 112-F.

e. Please refer to the supplemental workpaper SCG-04-GOM-O&M-SUP-005 under column A. The biannual footage for TY 2019 is approximately 19,721,179 feet, which convert to approximately 3,700 miles of pipe. This number accounts for the conversion of all high-pressure pipe from annual to bi-annual leak survey by the TY 2019.

f. SoCalGas does not categorize supply line surveys as part of TIMP or DIMP.

4. Referring to page GOM-53, lines 15-16, please provide the number of leaks SCG expects to find per the accelerated leak survey SCG plans to implement during this GRC cycle. Please identify the number of expected leaks by leak survey plan.

**SoCalGas Response 4:**

SoCalGas forecasts finding the following number of incremental leak indications associated with the change in leak survey cycles for vintage plastic pipe and high-pressure pipe:

Enhanced Vintage Plastic Pipe Leak Survey

| Year | Leak Indications |
|---|---|
| 2017 | 120 |
| 2018 | 3,500 |
| 2019 | 1,480 |

Bi-Annual HP Pipe Leak Survey

| Year | Leak Indications |
|---|---|
| 2019 | 55 |

**ORA DATA REQUEST**
**ORA-SCG-050-DAO**
**SOCALGAS 2019 GRC – A.17-10-008**
**SOCALGAS RESPONSE**
**DATE RECEIVED: DECEMBER 13, 2017**
**DATE RESPONDED: JANUARY 12, 2018**

**Exhibit Reference:** SCG-04
**SCG Witness:** Gina Orozco-Mejia
**Subject:** Field Operations and Maintenance, Field Support and Tools Fittings & Materials
**Please provide the following:**

1. Referring to SCG's testimony, page GOM-64, lines 13-23, please provide the following information:

a. A copy of all calculations and supporting documents SCG used to determine the statement on lines 15-16, "there has been an increase in customer and municipality requests for SoCalGas to remove previously-abandoned mains…"

b. Provide the number of customer and municipality requests and expenses incurred to remove previously-abandoned mains each year from 2012-2017YTD; and

c. Provide the number of requests to remove abandoned pipe made after the capital main abandonment project is completed as discussed on lines 19-23, and expenses incurred for each year from 2012-2017YTD.

**SoCalGas Response 1:**

a. SoCalGas did not develop specific calculations for the removal of previously abandoned pipe activity. The statement provided in testimony was an overview of the type of activities included in the Field Support work category and the general observations made by SoCalGas' subject matter experts on cost drivers impacting Field Support.

b. SoCalGas does not track the data to the level of detail requested. This is considered a miscellaneous project and it is tracked under the "Other Main Maintenance" cost category. Please see the expenses related to these "main maintenance routine" activities from 2013-2017-YTD (November 30th). 2012 expenses are not available due to a change in SoCalGas' financial tracking system.

| Main Maintenance Routine Expenses | | | | |
|---|---|---|---|---|
| 2013 | 2014 | 2015 | 2016 | 2017 |
| $ 63,678 | $ 159,523 | $ 271,994 | $ 500,477 | $ 449,880 |

c. As discussed in the response to Question 1.b above, SoCalGas does not track the data to the level of detail requested. This is considered a miscellaneous project and it is tracked under the "Other Main Maintenance" cost category. The statement provided in testimony was an overview of the type of activities included in the Field Support work category and the

general observations made by SoCalGas' subject matter experts on cost drivers impacting Field Support.

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**SOCALGAS RESPONSE**
**DATE RECEIVED: DECEMBER 15, 2017**
**DATE RESPONDED: JANUARY 9, 2018**

3. Referring to SCG testimony, page GOM-79, lines 3-13, please provide the following:

a. A copy of all calculations and supporting documents SCG used to determine the addition of one director for workforce planning & resource management; and

b. The number of directors for workforce planning & resource management assigned to Operations and Management and corresponding expenses incurred for each year from 2012-2017YTD.

**SoCalGas Response 3:**

a. The director of Workforce Planning & Resource Managment is a new position added in 2017 to better manage planning operations, resource management and local engineering. Given that this position was new and therefore not part of the Base Year 2016 costs, SoCalGas added the associated O&M cost to its forecast as an incremental increase. At the time of the forecast, SoCalGas projected an O&M cost for the workforce planning & resource management director of $185,000.

b. Please see the corresponding expenses of the director for workforce planning & resource management. There are no expenses from 2012 – 2016 as this is a new position added to address the management of the planning operations, resource management and local engineering, as explained on Page GOM-79, lines 3-13.

| Director of Workforce Management | |
|---|---|
| | 2017 YTD (Jan - Nov) |
| # of Directors | 1 |
| Expenses | $192,310 |

**ORA DATA REQUEST**
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**SOCALGAS RESPONSE**
**DATE RECEIVED: DECEMBER 15, 2017**
**DATE RESPONDED: JANUARY 9, 2018**

5. Referring to SCG testimony, page GOM-79, lines 25 to 28, please provide a copy of all calculations and supporting documents SCG used to determine the incremental increase of $112,000 and the number of "some management employees" affected.

**SoCalGas Response 5:**

Please see below the recorded expenses incurred and the corresponding FTEs related to support the Aliso Canyon incident in 2016:

| Aliso Canyon Incident | | | |
|---|---|---|---|
| | 2016 | FTE | Position |
| Expenses | $ 21,847 | 0.34 | Administrative Associate |
| | $ 29,793 | 0.31 | Project Manager |
| | $ 9,171 | 0.15 | Administrative Associate |
| | $ 14,821 | 0.18 | Technical Advisors (2) |
| | $ 37,343 | 0.43 | Technical Advisors (2) |
| Total | $ 112,975 | 1.40 | |

Approximately 7 management employees were involved related to the expenses shown above. This cost was excluded from the GRC filing and therefore, it is not part of the 2016 Base Year expense. However, as these employees went back to their regular positions to resume routine operations, SoCalGas is accounting for this cost post 2016. For additional detail regarding the costs incurred, and excluded, related to the Aliso Canyon incident, please see the testimony of Mr. Andrew Steinberg, Exhibit SCG-12.

**ORA DATA REQUEST**
**ORA-SCG-054-DAO**
**SOCALGAS 2019 GRC – A.17-10-008**
**SOCALGAS RESPONSE**
**DATE RECEIVED: DECEMBER 15, 2017**
**DATE RESPONDED: DECEMBER 10, 2017**

3. Referring to SCG's testimony pages GOM-5and GOM-6, please provide a copy of all calculations, analyses, and/or documents SCG used to support the statements on: (a) on lines 4-5, page GOM-6, "Field experience indicates that more favorable economic conditions lead to increases in various work requirements" and, (b) line 7, page GOM-6, "…this will impact activities related to customer and load demands."

**SoCalGas Response 3:**

This statement is based on SoCalGas' subject matter experts' observations during slow and expanding economic periods. For example, during the last economic recession, December 2007 through June 2009, several field activities related to economic conditions were lower than the previous years as the economy slowed down. New business construction was down, which led to lower meter set installations. The number of new meter sets installed reached a low in 2011 of 18,764 and rose back to 37,708 in 2016 as economic conditions improved. In SoCalGas' observation, the growth in meter set installations is related to the recovery in the economy and growth in housing starts.

Another example is the impact on Locate and Mark activities, which grew as shown in page 7 of workpapers SCG-04-WP_GDIST. Page 18 of workpapers SCG-04-WP_GDIST also shows the growth in Underground Service Alert (USA) tickets and costs each year, during a period of positive economic growth. The decrease in tickets in 2016 is due to a process change in accounting for duplicate ticket requests.

| Total SoCalGas Distribution USA Tickets | | | | | |
|---|---|---|---|---|---|
| | 2012 | 2013 | 2014 | 2015 | 2016 |
| Number of USA Tickets[1] | 534,174 | 577,524 | 640,677 | 650,858 | 627,116 |
| Annual Expense (shown in Thousands)[2] | $ 11,355 | $ 11,818 | $ 12,371 | $ 13,194 | $ 13,788 |

Furthermore, SoCalGas distribution main mileage increased by 641 miles between 2012 and 2016, which led to an increase in leak survey. Additionally, the increase in meter sets and new business construction is one of drivers for pressure betterment activities. The historical spending, on page 27 of workpapers SCG-04-CWP_GDIST, shows an increase in the past three years correlating to the continued increase in new business activities.

| | Adjusted Recorded | | | | | Adjusted Forecast | | |
|---|---|---|---|---|---|---|---|---|
| Years | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
| Labor | 262 | 177 | 382 | 649 | 1,158 | 526 | 526 | 526 |
| Non-Labor | 12,466 | 12,076 | 37,530 | 22,526 | 28,212 | 22,562 | 22,562 | 22,562 |
| NSE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Total** | **12,728** | **12,253** | **37,912** | **23,175** | **29,371** | **23,088** | **23,088** | **23,088** |
| FTE | 3.3 | 2.0 | 4.1 | 6.8 | 11.7 | 5.6 | 5.6 | 5.6 |

**ORA DATA REQUEST**
**ORA-SCG-062-DAO**
**SOCALGAS 2019 GRC – A.17-10-008**
**SOCALGAS RESPONSE**
**DATE RECEIVED: DECEMBER 27, 2017**
**DATE RESPONDED: JANUARY 19, 2018**

**Exhibit Reference:** SCG-04 Testimony and Workpapers
**SCG Witness:** G. Orozco-Mejia
**Subject:** Gas Distribution Capital Expenditures, Regulator Stations

**Please provide the following:**

1. Referring to Ex. SCG-04 testimony, page GOM-108, line 26, and GOM-109, line 1, please provide a breakdown of the 1,975 regulator stations currently operated and maintained by SCG by age group:

a. 0-10 years,

b. 11-20 years,

c. 21-30 years,

d. 31-35 years, and

e. 36 years and older.

**SoCalGas Response 1:**

Please see the table below with the breakdown for the number of regulator stations in the system by age group.

| AGE | COUNT |
|---|---|
| 0 – 10 Years | 288 |
| 11 – 20 Years | 302 |
| 21 – 30 years | 454 |
| 31 – 35 Years | 147 |
| 36 Years and Older | 784 |
| **Grand Total** | **1,975** |

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**DATE RECEIVED: DECEMBER 27, 2017**
**DATE RESPONDED: JANUARY 19, 2018**

2. Referring to Ex. SCG-04-CWP workpapers, page 76, Project Justification, please provide the following:

a. An explanation of how SCG prioritizes the replacement of regulator stations;

b. An explanation of how SCG assesses the risk of regulator stations and how the risks are assigned to each of the factors identified on page 76:

i. design obsolescence,

ii. active corrosion,

iii. deteriorating vaults or equipment,

iv. exposure to flooding,

v. hazardous traffic conditions, and

vi. considered ergonomically unsafe.

c. Referring to the statement, "SoCalGas proactively targets these stations for replacement before operation and safety issues arise," please state if this is a past, current, or proposed company practice?

d. Please provide the risk assessments performed, if any, from 2012-2017YTD to prioritize regulator station replacement;

e. Provide the number of regulator stations replaced each year from 2012-2017YTD, by risk factor; and

f. Provide the annual costs to replace regulator stations from 2012-2017YTD by risk factor.

**SoCalGas Response 2:**

a. SoCalGas prioritizes the replacement of regulator stations with emphasis on the safe and reliable delivery of natural gas and several factors contribute to the replacement decisions, including:

Safety – The safety of our customers and employees is our top priority. A safety-related condition that cannot be addressed in a satisfactory manner through maintenance will be targeted for replacement.

Condition – Certain conditions, when encountered, such as material or component failure, severe corrosion and other unanticipated factors require that action be taken. If system configuration prevents the facility from being taken off-line, replacement is the preferred option.

System Reliability – SoCalGas' gas distribution system is analyzed and evaluated to determine ability to meet winter and summer peak load demand conditions. If it is determined that a larger regulator station is needed for reliability purposes, the existing facility will be scheduled for replacement.

New Business – As communities across our service territory expand, it may become necessary to replace an existing regulator station to increase system capacity to meet demand.

Franchise Obligations – When SoCalGas regulator station facilities conflict with municipalities, railways, or state and federal improvement projects, SoCalGas is required by franchise agreement to accommodate these projects, which could entail relocation via replacement.

b. Please see below the explanation on how SoCalGas assesses the risk of regulator stations:

i. design obsolescence

Dual run regulator stations that include particle filtration and modern "top entry" regulators in ergonomically designed vaults with an inlet and outlet "fire control" valve, are the preferred design due to enhanced safety, increased system capacity, and reliability as well as ease of maintenance and improved industrial ergonomics. All regulator stations are compared against this preferred standard design. Regulator stations that do not meet the design criteria stated above are considered obsolete.

An aspect of obsolescence is the availability of replacement parts for routine maintenance for certain components. While these assets are well maintained and remain in service for extended periods, they are no longer considered "industry standard."

ii. active corrosion

Corrosion is assessed and documented on each visit. Employees are trained to identify and address atmospheric corrosion.

iii. deteriorating vaults or equipment

SoCalGas' vaults are assessed on each visit. The material of the lids varies. Locations that have lids are in constant contact with the environment and are subject to the effects of age, moisture, earth movement, static load forces, and pedestrian and vehicular traffic. These facilities are monitored

for component integrity, including: lid assembly corrosion (hinges, springs/torsion bars, safety bars/ latches, and locks), concrete integrity, and water intrusion.

iv. exposure to flooding

Regulator stations are routinely exposed to nuisance water, which can cause corrosion and leaking.

v. hazardous traffic conditions

Street improvement projects often change the physical environment affecting vehicular dynamics around some of SoCalGas' facilities, exposing our employees and equipment to increased danger while completing routine inspections. Mitigating these risks results in increased inspection costs.

vi. considered ergonomically unsafe

Vaults that were installed in past decades did not consistently consider the issues associated with industrial ergonomics. As a result, these locations require our employees to perform inspections in cramped conditions, often in awkward positions for extended periods that can potentially expose employees to workplace injuries.

c. SoCalGas targets stations for replacement before operation and safety issues arise that can impact the safety of the public and employees and the integrity of the pipe system. This is a past and current practice.

d. The assessments are conducted on a continuous basis by the regional measurement and regulation teams. As the local technician's report findings from the ongoing inspections and maintenance activities, a list of regulator station replacements is developed for the subsequent year. For reference, the current list of regulator stations identified for replacement is attached to this response. SoCalGas does not retain other records of risk assessments previously performed. See attachment ORA-SCG-062-DAO-Q2.d.

e. Please see below the number of regulator stations replaced from 2012 – 2017 YTD (November 30, 2017). Once a station is replaced, SoCalGas does not keep documentation of the reason for the replacement.

| Year | Regulator Stations ~~Replaced~~ Installed |
|---|---|
| 2012 | 29 |
| 2013 | 27 |
| 2014 | 19 |

| | |
|---|---|
| 2015 | 20 |
| 2016 | 20 |
| 2017 | 17 |

f. Please see the expenses below related to regulator stations as shown in page 76 of workpapers SCG-04-CWP-GDIST. SoCalGas Gas Distribution does not track regulator station replacement costs by risk factor; rather, costs are captured in one budget category for regulator replacements. The 2017 YTD (November 30, 2017) expenses are approximately $6,300,000.

| | Adjusted Recorded | | | | |
|---|---|---|---|---|---|
| Years | 2012 | 2013 | 2014 | 2015 | 2016 |
| Labor | 370 | 236 | 329 | 428 | 447 |
| Non-Labor | 4,294 | 6,936 | 6,069 | 6,993 | 8,189 |
| NSE | 0 | 0 | 0 | 0 | 0 |
| **Total** | **4,665** | **7,172** | **6,398** | **7,422** | **8,635** |
| FTE | 4.7 | 2.7 | 3.5 | 4.7 | 4.6 |

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7. For each year from 2012 to 2017YTD, please provide the recorded unit completed and expenditures incurred to:

a. inspect regulators and gauges,

b. construct new installations,

c. relocate, and

d. replace distribution regulator stations.

**SoCalGas Response 7:**

a. The inspection of regulator and gauges is an O&M expenditure. Below is the number of inspection orders completed in the regulator station work category and associated Labor cost by year.

| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017YTD |
|---|---|---|---|---|---|---|
| Order count | 5,086 | 5,345 | 5,458 | 5,671 | 5,696 | 5,872 |
| Costs | $860,362 | $974,037 | $1,079,119 | $1,286,278 | $1,453,768 | $1,593,197 |

b. c. d. The table below provides new installations, relocations and replacements of regulator stations for the years 2012-2017 YTD (November 30, 2017). See the response to Question 1.f above for expenditures incurred.

| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017YTD |
|---|---|---|---|---|---|---|
| New Installations | 9 | 8 | 7 | 3 | 5 | 8 |
| Relocations | 13 | 7 | 3 | 11 | 2 | 5 |
| Replacements | 7 | 12 | 9 | 6 | 13 | 4 |

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**SOCALGAS RESPONSE**
**DATE RECEIVED: DECEMBER 27, 2017**
**DATE RESPONDED: JANUARY 19, 2018**

2. On page GOM-109, lines 22-23, SCG states, "While SoCalGas has approximately a third of its regulator stations with components that exceed 35 years, prudent operating and maintenance practices have allowed these stations to remain in service." On page GOM-110, lines 21-23, SCG states, "At the current replacement rate, 68% of the regulator stations in the system will be above the expected useful life of 35 years."

ORA's understanding is that in the first statement, there are 33% of regulator stations that exceed 35 years, while the second statement indicates that 68% of the regulator stations are 35 years. Please provide clarification for these statements.

**SoCalGas Response 2:**

The statement on page GOM-109, lines 22-23 referred to the approximate percentage of regulator stations that exceeded 35 years of age, which was approximately a third of the 1,975 regulator stations in the system. The statement on page GOM-110, lines 21-23 was part of an overview of an incremental program to increase the number of regulator stations replacements. It was based on a 10-year projection with the current regulator station inventory age progression. It did not factor in the "new" stations in the total or percentages.

7. Referring to page GOM-124, lines 11-12, please explain and provide a copy of all calculations and supporting analyses/studies SCG performed to forecast the installation of 13,000 MSA locations each year in 2018 and 2019.

**SoCalGas Response 7:**

In 2016, SoCalGas implemented a focused MSA Inspection Program, as mentioned above in response to Question 3. As Customer Services increases the number of MSA inspections, the amount of work orders generated for follow up will continue to increase. This includes identifying MSAs that require the installation of a new meter guard. During 2016 and 2017, the MSA Inspection Team identified approximately 125,000 locations where a meter guard, or other means of meter protection, may be required. In order to address these work orders, SoCalGas will increase the installation of meter guards with a target goal of 10 years to reduce its current inventory starting with 13,000 orders in 2018. SoCalGas plans to continue at this rate until it reduces its inventory.

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**ORA-SCG-065-DAO**
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**SOCALGAS RESPONSE**
**DATE RECEIVED: DECEMBER 27, 2017**
**DATE RESPONDED: JANUARY 19, 2018**

8. Referring to page GOM-124, lines 9-10, please provide the following:

a. A copy of the plan to address the installation of the incremental meter guards as referenced;

b. The rationale for developing this plan;

c. The rationale for the implementation of the plan specifically in 2018;

d. Is this plan designed to comply with regulations affecting the work activities of meter guards in the 2019 GRC cycle? If yes, please identify the regulations.

e. The status of SCG's plan development.

**SoCalGas Response 8:**

a. SoCalGas has not yet completed the formal project plan for the meter guard installation project. See the response to Question 7 above.

b. See the responses to Questions 1.a and 7 above.

c. The creation of the MSA Inspection Team in 2016 as referenced in Question 3 above created a significant inventory of MSA locations requiring follow up work by Gas Distribution. SoCalGas Gas Distribution recognized the growing number of MSA locations needing follow up relating to meter guards and began to develop a plan in 2017 with the goal of implementing its plan in 2018.

d. The plan is designed to comply with PHMSA Title 49, Subpart H, 192.353 (a). In general, state and federal regulations require gas piping to be protected from physical damage, including impact from vehicles. In addition, Title 49, Subpart H, 192.917 (a) (3) (DIMP) refers to the protection of gas systems from damage by outside forces.

e. SCG is still in development of its capital meter guard installation plan.

**ORA DATA REQUEST**
**ORA-SCG-068-DAO**
**SOCALGAS 2019 GRC – A.17-10-008**
**SOCALGAS RESPONSE**
**DATE RECEIVED: DECEMBER 29, 2017**
**DATE RESPONDED: JANUARY 22, 2018**

8. Referring to Ex. SCG-04-R revised testimony, page GOM-137, lines 7-16, please provide the following:

a. Supporting documents showing that the manufacturer of the currently used Supplied Air Respirator (SAR) kits no longer supports the equipment;

b. The number of SAR kits in use each year from 2012-2017YTD;

c. The number of new SAR kits purchased and costs incurred each year from 2012-2017YTD;

d. The number of Self-Contained Breathing Apparatus (SBCA) kits currently in use each year from 2012-2017YTD;

e. The number of new SBCA kits purchased and costs incurred each year from 2012-2017YTD;

f. The annual budget allocated for the purchase of specific equipment for use by Field personnel working in Immediately Dangerous to Life or Health (IDLH) environments or in flammable atmospheres, and recorded expenses for 2012-2017;

g. The number of field personnel working in IDLH environments or in flammable atmospheres for 2012-2017.

**SoCalGas Response 8:**

a. SCG verified with the manufacturer that the SAR kits are discontinued and the replacement parts are no longer available.

b. There were 119 SAR kits in use each year from 2012 – 2017 YTD (November 30, 2017).

c. There were no SAR kits purchased from 2012 – 2017 YTD (November 30, 2017).

d. There were 51 SBCA kits used between 2012- 2015. From 2015 – 2017 YTD (November 30, 2017), there were 25 SBCA kits in use.

e. There were 25 SBCA kits purchased in 2015. The total cost was approximately $32,000. There were no SBCA kits purchased in other years from 2012 – 2017 YTD (November 30, 2017).

**ORA DATA REQUEST**
**ORA-SCG-075-DAO**
**SOCALGAS 2019 GRC – A.17-10-008**
**SOCALGAS RESPONSE**
**DATE RECEIVED: JANUARY 5, 2018**
**DATE RESPONDED: JANUARY 26, 2018**

8. Referring to SCG's revised testimony, Ex. SCG-04-R, page GOM-142, line 25, please provide a copy of all calculations and supporting documents used to determine the remaining curb meters totaling 26,600.

**SoCalGas Response 8:**

SoCalGas discovered a discrepancy in both the testimony and the workpaper. The table below shows the corrected data. There are 22,162 curb meters remaining to be upgraded with the AMI technology as of the end of 2016, and this equates to an estimated order volume of 24,311 as shown in line # 4 below.

The count provided in the original workpaper and testimony inadvertently included curb vaults with no meter. Since there is no meter in the curb vault, it does not need to be upgraded with the AMI technology, and therefore, should have been excluded in the count.

A revision will be submitted by SoCalGas at a later date to reflect this change and revise the capital forecast for Budget Code 00182.0 and associated O&M forecast for 2017 and 2018.

| Line # | Description | Revised (Correction) |
|---|---|---|
| 1 | No. of curb meter remaining to be upgraded with AMI technology as of end of 2016 | 22,162 |
| 2 | Customer Services – Field 2016 average incomplete rate | 9.7% |
| 3 | No. of incompletes so additional visits required (Item 1 x Item 2) | 2,150 |
| 4 | Total estimated order volume (Item 1 + Item 3) | 24,311 |

**ORA DATA REQUEST**
**ORA-SCG-085-DAO**
**SOCALGAS 2019 GRC – A.17-10-008**
**SOCALGAS RESPONSE**
**DATE RECEIVED: JANUARY 12, 2018**
**DATE RESPONDED: FEBRUARY 1, 2018**

**Exhibit Reference:** SCG-4 Revised Testimony
**SCG Witness:** Gina Orozco-Mejia
**Subject:** Gas Distribution O&M Expenses, Operations Management

**Please provide the following:**

1. Referring to SCG's revised testimony, Ex. SCG-4-R, page GOM-79, lines 12-26, SCG requests an incremental $298,000 for 3 Project Advisors and $101,0000 for 1 Project Manager. Please answer the following questions regarding this request:

a. An explanation of "leak inventory";

b. For the period of 2012-2017, did SCG have a leak inventory?

c. For the period of 2012-2017, please explain in detail how SCG managed the leak inventory by identifying (i) the steps taken, (ii) the number of leaks in the inventory and the number of leaks repaired each year (iii) the number of FTEs involved, and (iv) the incurred costs.

d. For the period of 2012-2017, please provide (i) the number of Project Managers allocated to Operations and Management, and (ii) the number of Project Managers allocated to Operations and Management whose responsibilities included the management of leak repairs and/or leak inventory.

**SoCalGas Response 1:**

a. Please refer to the revised testimony of Gina Orozco-Mejia on pages GOM-53-54 for an explanation of leak inventory.
b. Yes
c.
    i. From 2012-2016, a decentralized project management effort to mitigate leaks by prioritizing and performing main replacements on main segments identified to have both historical leakage as well as multiple leaks was used. This effort also focused on leaks based on detection year and targeted the oldest leaks. Non-hazardous leaks were prioritized based on their potential to become hazardous and repaired within 15 months or re-evaluated until their classification changed. Over the years, SoCalGas has accumulated an inventory of non-hazardous leak indications. SoCalGas made efforts to reduce this inventory however it outgrew the pace of our repair work. As a result of the previous GRC Decision (D.)16-06-054 issued in mid-2016, SoCalGas created a project management team in 2017, which centralized the leak inventory reduction effort to improve interdepartmental communications and hired leakage-focused crews to gain efficiency through leak repair repetition.

**SoCalGas Response 1-i:** -Continued

The project management team tracks and manages the leak inventory by analyzing leak characteristics to determine the optimal process of addressing the inventory. Additionally, the team tracks the costs of leaks, field crew productivity, and communicates the leak inventory efforts to municipalities for awareness. The team focuses on eliminating these leaks in no more than three years from discovery to continue its reduction of the inventory as the level of work continues.

ii. Please see the table below. SCG interprets the number of non-hazardous main leaks in the inventory, leaks repaired, number of FTEs involved and cost incurred all related to the pending non-hazardous leak inventory as referenced on GOM-54, lines 3-11.

| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|
| **Total Pending Leaks (DOT Report)** | 8,581 | 9,427 | 9,530 | 10,666 | 11,044 | - * |
| **Number of Code 3 Leaks in Inventory** | 7,267 | 7,982 | 7,591 | 8,748 | 9,763 | 9,105 |
| **Number of Code 3 Leaks Repaired/Resolved** | 2,228 | 2,432 | 3,718 | 2,367 | 2,452 | 4,155 |

* The 2017 DOT report will not be available until March 2018.

iii. The number of FTEs and cost incurred for 2012-2016 are unavailable as SCG does not track the number of FTEs based on leak code. However, in 2017, SoCalGas hired 40 additional FTEs to support the leak inventory reduction effort.

iv. See response to Question 1.c.iii above.

d.

| | | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|---|
| **i.** | **Project Managers FTEs (Operations and Management)** | 3 | 2 | 2 | 2 | 4 | 4 |
| **ii.** | **Project Manager (FTE) for the Leak Inventory**** | 0 | 0 | 0 | 0 | 0 | 1 |

**There is one Project Manager, in 2017, that is allocated to Operations and Management for management of the leak inventory effort.

**ORA DATA REQUEST**
**ORA-SCG-085-DAO**
**SOCALGAS 2019 GRC – A.17-10-008**
**SOCALGAS RESPONSE**
**DATE RECEIVED: JANUARY 12, 2018**
**DATE RESPONDED: FEBRUARY 1, 2018**

2. Referring to SCG's revised testimony, Ex. SCG-4-R, page GOM-79, lines 27-31, and page GOM-80, lines 1-6, please provide the following:

a. Are the work activities of the Workforce Planning & Resource Management newly created for this GRC cycle?

b. How has SCG managed the work activities of Workforce Planning & Resource Management from 2012-2017?

c. Provide the number of FTEs, broken down by job titles, and costs incurred for Workforce Planning Management from 2012-2017.

**SoCalGas Response 2:**

a. The work activities of the Workforce Planning & Resource Management are not newly created for this GRC cycle. As referenced in page GOM-79, lines 27-31, and page GOM-80, lines 1-6, the position was created to better manage an organization accountable for the planning, scheduling, resource management, engineering, design, and special projects of the entire SoCalGas distribution pipeline infrastructure.

b. Between 2012-2016, these work activities were managed by two separate geographic organizations and distribution projects were managed independently in various departments. These two organizations were also responsible for managing the day-to-day field support and maintenance activities within SoCalGas distribution. In 2017 these functions as referenced in Question 2.a above were consolidated in a centralized organization for the entire SoCalGas distribution pipeline infrastructure. This provides a central view of distribution resource and workforce management including distribution projects while allowing the former organizations to manage the day-to-day field support and maintenance activities.

c. SoCalGas objects to this request under Rule 10.1 of the Commission's Rules of Practice and Procedure on the grounds that the burden, expense and intrusiveness of this request clearly outweigh the likelihood that the information sought will lead to the discovery of admissible evidence. Subject to and without waiving the foregoing objection, SoCalGas responds as follows:

The data on FTEs by job title for Workforce Planning Management is not in a format that allows it to be readily available nor be extracted accurately; therefore, SoCalGas is not able to provide FTEs by job titles per year as requested. However, SoCalGas is providing the overall FTEs and associated costs in Workforce Planning Management based on the cost centers that form the Gas Distribution GRC request. Please see table below for 2012-2016.

**SoCalGas Response 2-c: -Continued**

| | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|
| **Number of Workforce Planning FTEs** | 117 | 118 | 97 | 79 | 82 |
| **Labor Costs incurred** | $ 8,224,096 | $ 8,375,573 | $ 7,155,147 | $ 6,001,558 | $ 6,342,395 |

The 2017 year-end costs and FTEs are not available because 2017 financial information will not be available until after SoCalGas makes its 10-K filing with the SEC in early 2018. It is currently expected that SoCalGas will provide the adjusted recorded 2017 financial information to ORA in March 2018.

**ORA DATA REQUEST**
**ORA-SCG-093-DAO**
**SOCALGAS 2019 GRC – A.17-10-008**
**SOCALGAS RESPONSE**
**DATE RECEIVED: JANUARY 22, 2018**
**DATE RESPONDED: FEBRUARY 5, 2018**

**Exhibit Reference:** SCG-04-R Testimony
**SCG Witness:** Gina Orozco-Mejia
**Subject:** Gas Distribution Capital, Regulator Station Replacement Program

**Please provide the following:**

1. Referring to Ex. SCG-04-R revised testimony, page GOM-111, lines 18-25, wherein SCG states, "At the current replacement rate, 68% of the regulator stations in the system will be above the expected useful life of 35 years…" Please provide the following:
    a. Please identify the number of stations referenced as 68%;
    b. With the SCG proposed incremental work of replacing 8 stations in 2018 and 18 stations in 2019, how many stations does SCG expect to be above the expected useful life of 35 years?
    c. What is an acceptable number of regulator stations above the age of 35 years for SCG's system? Please provide the calculations, and any analyses performed by SCG or on SCG's behalf, used to determine the acceptable number of regulator stations.
    d. Provide the timeframe in which SCG has operated with zero regulator stations above the age of 35 years old.

**SoCalGas Response 1:**

a. Approximately 1,343 regulator stations were identified as the number of stations referenced as 68% at the time of forecast. The number was based on a 10-year projection of the regulator station inventory age progression. It did not factor in new stations. The data was based on a survey that was in progress at the time of forecast.

b. SoCalGas is proposing to replace an incremental 10 stations in 2018 and 18 in 2019. The reference in Ex. SCG-04-R, page GOM-111, line 18 will be corrected to reflect 10 stations at the next available opportunity. Age is only one of the factors SoCalGas uses to determine whether a regulator station is replaced. SoCalGas did not forecast the number of regulator stations that will exceed the age of 35 years in the test year 2019. However, if SoCalGas assumes the replacement of an incremental 28 regulator stations older than 35 years through 2019, SoCalGas would have approximately 858 regulator stations above 35 years old by the end of 2019.

c. SoCalGas objects to this request on the grounds that it is vague and ambiguous with respect to the phrase 'acceptable number' and on that basis, SoCalGas is unable to fully respond. SoCalGas further objects to this request on the grounds that it calls for speculation. Subject to and without waiving the foregoing objections, SoCalGas responds as follows: There is no specific number of acceptable regulator stations above the age of

**SoCalGas Response 1 Continued:**

35 years in SoCalGas' system. Age is only one of the factors SoCalGas uses to determine whether a regulator station requires replacement. SoCalGas' operating and maintenance practices allow stations to exceed the average useful life.

d. SoCalGas does not track this information and is not able to make this assessment.

**TURN DATA REQUEST-018**
**SDG&E-SOCALGAS 2019 GRC – A.17-11-007/8**
**SDG&E_SOCALGAS RESPONSE**
**DATE RECEIVED: FEBRUARY 22, 2018**
**DATE RESPONDED: MARCH 9, 2018**

13. Re. SCG-04, p. GOM-56, Service Maintenance and associated workpapers:

    a. Re. WP p. 71-72: Please provide the excel spreadsheet showing the 5-year linear trend analysis

    b. Re WP p. 74 – Please explain the "continuing increase in maintenance work associated with meter guard activities."

        i. Please provide any data and analyses supporting the forecast of orders in 2019.

        ii. Please provide any reports or other documents concerning the increase in meter guard activities.

**Utility Response 13:**

a. SoCalGas did not prepare an Excel spreadsheet to derive a linear trend analysis. Most GRC workpapers and tables that appear in testimony are not created from, nor do they originate as Excel spreadsheets, and are produced from a database system. Use of the database for this purpose does not involve spreadsheets. The database contains a collection of tables and linking relationships that we format into reports called workpapers. Main workpapers are produced as PDF documents and the tables that appear in testimony are produced in Word format. The resulting forecasts for Service Maintenance are shown in the "Base Forecast" section in the table on page 72 of SCG-04-WP. TURN can derive the same forecasts shown in the table using the five years of historical adjusted recorded costs from page 71 of SCG-04-WP and the linear trend function in Excel.

b. Pursuant to CFR § 192.481, the DOT requires each meter set assembly (MSA) to be inspected every three (3) years for atmospheric corrosion. Although meter readers have historically performed this function, with the installation of automated meter reading and the significant decrease of Meter Readers, a new group, the CS-F MSA Inspection Organization, was formed in base year 2016. The CS-F MSA Inspection Organization performs physical, on-site inspections for each MSA to comply with DOT's mandatory MSA inspections for atmospheric corrosion and to identify conditions that may require remediation by CS-F and Distribution field employees, such as the need to replace meter guards. SoCalGas will increase the rate of meter guard replacement orders under O&M to address the inventory of pending work. The MSA Inspection Program is discussed in the testimony of Gwen Marelli, Exhibit SCG-18-R, Section III.B.5.

**Utility Response 13:-CONTINUED**

i. At the time of the forecast, the inventory in meter guard orders, under O&M replacement, was approximately 5,200 orders. The forecast was based on a ramp-up effort to address the inventory of existing meter guard maintenance. The forecast for 2019 meter guard replacement orders is 3,500. The meter guard costs and units are shown in Ex. SCG-04-WP, pages 72-74 and 79. Meter guard replacement conditions will continue to be identified as part of ongoing MSA inspections performed by the CS-F MSA Inspection Organization.

ii. SoCalGas objects to this request on the grounds that it is overly broad and vague and ambiguous with respect to the phrase "or other documents." SoCalGas interprets this phrase to mean other formal analyses or studies. Subject to and without waiving the foregoing objection, SoCalGas responds as follows: There are no reports or other documents concerning the increase in meter guard activities.

**TURN DATA REQUEST-030**
**SDG&E-SOCALGAS 2019 GRC – A.17-11-007/8**
**SDG&E_SOCALGAS RESPONSE**
**DATE RECEIVED: MARCH 15, 2018**
**DATE RESPONDED: MARCH 29, 2018**

1. Re. SCG-18, p. GRM-39:
   a. When did the DOT inspection requirements (§ 192.481) become effective?
   b. Is SCG claiming that inspection requirements have changed since 2012? If yes, please explain in detail how the requirements have changed.
   c. Please explain exactly if and how the actual MSA inspection work performed by staff of the CS-F MSA Inspection Organization differs from the inspection of MSAs previously performed by meter readers.

**Utility Response 01:**

1.a. SoCalGas objects to this request under Rule 10.1 of the Commission's Rules of Practice and Procedure on the grounds that the timeframe encompassed in this request is not relevant to the subject matter involved in the pending proceeding, and therefore, the burden, expense and intrusiveness of this request outweighs the likelihood that the information sought will lead to the discovery of relevant and admissible evidence. In particular, to the extent that this request seeks information prior to 2012, such information is outside the scope of the relevant time period used by SoCalGas in developing its forecasts. Subject to and without waiving the foregoing objection, SoCalGas responds to Question 1.a. as follows: SoCalGas is not aware of when 49 CFR §192.481 initially became effective; however, the regulation has been effective at least since 2012, which is the time period relevant for this proceeding.

1.b. No, SoCalGas is not claiming that the inspection requirements as stated in CFR §192.481 have changed since 2012.

1.c. SoCalGas has been performing a more comprehensive inspection since 2016. A general discussion of how the MSA inspection work performed by the CS-F MSA Inspection Organization differs from the inspections performed by meter readers, was previously discussed during the 2016 General Rate Case Application (A.14-11-004) in the testimony of S. Franke, Exhibit SCG-10.

The differences are as follows: 1) As stated on page SAF-20 of Exhibit SCG-10, "given the heightened natural gas pipeline safety concerns, coupled with the fact that meter readers will no longer be at customer premises to visually see and read meters each month, SoCalGas proposes to complete a more comprehensive inspection of each MSA every three years." Meter readers performed the DOT-required MSA inspections in conjunction with obtaining meter reads at customer's facilities each month for billing purposes. With the implementation of AMI and elimination of most meter readers, MSA Inspection Representatives visit the customer's facility once every three years to perform the more comprehensive inspections; 2) It is also stated on page SAF-20 that "FSAs, who are Operator Qualified in more elements and higher skilled than meter readers, will

**Utility Response 01 Continued:**

be required to thoroughly inspect all aspects of the MSA, including the gas riser, all piping, the regulator and the meter, from al directions and angles, *while physically present at each MSA*." Meter readers did not have to be physically present at the meter to obtain the read and perform the visual inspection; and 3) Table SAF-14 on page SAF-21 of Exhibit SCG-10 provided a summary of the twenty inspection elements that were performed by meter readers and listed the seven proposed MSA inspection elements added to enhance the inspections historically performed by meter readers.

## Appendix C – Data Requests (ORA response)

ORA-SCG-04-DAO Data Request 5

**ORA**

*Office of Ratepayer Advocates*
*California Public Utilities Commission*

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# ORA Response to Sempra Energy Utilities' Data Request
# San Diego Gas & Electric Co. Test Year 2019 General Rate Case, A.17-10-007
# Southern California Gas Co. Test Year 2019 General Rate Case, A.17-10-008

**Origination Date:** May 1, 2018
**Due Date:** May 15, 2018
**Response Date:** May 9, 2018

**To:** Chuck Manzuk
cmanzuk@semprautilities.com
1-858-654-1782

**From:** Clayton Tang and Truman Burns, Project Coordinators
Office of Ratepayer Advocates
505 Van Ness Avenue, Room 4205
San Francisco, CA 94102

**Response by:** Dao Phan
**Phone:** 415-703-5249
**Email:** dao@cpuc.ca.gov

**Data Request No:** Sempra (SCG) Data Request 5
**Exhibit Reference:** ORA-11
**Subject:** Gas Distribution Field Capital Support

***The following is ORA's response to Sempra's data request. If you have any questions, please contact the responder at the phone number and/or email address shown above.***

Q.1 Please provide the supporting calculations ORA used to determine ORA Recommended Field Capital Support forecast expenditures for 2018 and 2019 as shown in Table 11-53 on p. 80 of ORA-11.

A.1: Please see the attached spreadsheet, "Field capital Support.xlsx".

**END OF RESPONSE**

**ORA Response to SCG Data Request 5**

| | Workpapers for Field Capital Support | ORA Capital Cons. 2018 | ORA Capital Cons. 2019 |
|---|---|---|---|
| 1 | New Business (w/o Forfeitures) | $ 37,212 | $ 47,904 |
| 2 | Pressure Betterment | $ 23,088 | $ 23,088 |
| 3 | Supply Line Replacement | $ 4,209 | $ 4,209 |
| 4 | Main Replacement | $ 33,711 | $ 33,711 |
| 5 | Service Replacement | $ 31,871 | $ 31,871 |
| 6 | Main/Service Abandon | $ 8,988 | $ 8,988 |
| 7 | Regulator Stations | $ 7,531 | $ 7,531 |
| 8 | Cathodic Protection | $ 6,059 | $ 8,322 |
| 9 | Freeway Relocation | $ 3,745 | $ 3,745 |
| 10 | Franchise Relocation | $ 16,891 | $ 16,891 |
| 11 | Other Dist. Capital Projects/Meter Guards | $ 3,297 | $ 3,297 |
| | **Total Construction Costs** | **$ 176,602** | **$ 189,557** |
| | 32.70% | $ 57,749 | $ 61,985 |
| | **Field Capital Support** | **$ 57,749** | **$ 61,985** |

## Appendix D - Errata

| Exhibit | Witness | Page | Line or Table | Revision Detail |
|---|---|---|---|---|
| SCG-04-R | Gina Orozco-Mejia | GOM-111 | 18 | Clarifying SoCalGas' plans to replace 10 regulator stations in 2018 and not eight. |
| Response to ORA-SCG-04-062-DAO (included in ORA's testimony and also Appendix B to this exhibit) | Gina Orozco-Mejia | Question 2.e | Table | Clarifying table name should be "Regulator Stations Installed" and not "Regulator Stations Replaced" |