Company: Southern California Gas Company (U904G)
Proceeding: 2016 General Rate Case
Application: A.14-11-004
Exhibit: SCG-204

SOCALGAS

REBUTTAL TESTIMONY OF FRANK B. AYALA

(GAS DISTRIBUTION)

June 2015

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Doc# 297731

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SOCALGAS REBUTTAL TESTIMONY OF FRANK B. AYALA
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I. SUMMARY OF DIFFERENCES

TOTAL O&M - Constant 2013 ($000)			
	Base Year 2013	**Test Year 2016**	**Change**
SoCalGas	108,667	144,986	36,319
ORA[1]	108,667	128,686	20,019
TURN	108,667	129,477	20,810

TOTAL CAPITAL - Constant 2013 ($000)			
	2014	**2015**	**2016**
SoCalGas	274,426	271,848	273,616
ORA[2]	247,368	239,400	273,626
TURN	247,368	244,872	268,903

In total, Southern California Gas Company (SoCalGas or SCG) requests the Commission adopt its Test Year 2016 (TY2016) forecast of $144,986,000 for Gas Distribution Operations and Maintenance (O&M) expenses, which is composed of $137,077,000 for non-shared service activities and $7,909,000 for shared service activities. While SoCalGas does not oppose the proposed reductions to its 2014 capital forecasts, SoCalGas requests the Commission adopt its forecast for capital expenditures in 2015 and 2016 of $271,848,000 and $273,616,000, respectively. These forecasts support SoCalGas' fundamental philosophy to achieve operational excellence while providing safe and reliable delivery of natural gas to customers at reasonable cost. This commitment requires that SoCalGas continue to invest in its employees, pipeline assets, and support services to mitigate risks associated with the safety of the public and employees; system reliability; and infrastructure integrity. These commitments also require Gas Distribution to respond to changing regulations that require ongoing changes to business processes, increasing data analysis corresponding changes to Gas Standards, updating technology

[1] SoCalGas identified and attempted to correct errors/omissions in ORA's summary O&M tables. The TY2016 total shown for ORA ($128,626,000) does not match the ORA's summary table ($126,704,000).
[2] SoCalGas identified and attempted to correct errors in ORA's capital tables, which accounts for the different values shown in this testimony as compared with those shown in ORA's testimony.

to synchronize with the business process changes, and training employees on updated processes and technology.

A. ORA

Office of Ratepayer Advocates (ORA) issued its report on Gas Distribution on April 24, 2015.[3] The following is a summary of ORA's positions:

- ORA reduces my 2016 Non-Shared Services O&M forecast of $137.077 million by $12.772 million.[4] ORA proposes reductions in Field O&M – Locate and Mark, Field O&M – Main Maintenance, Field O&M – Field Support, Asset Management, and Operations Management and Training.
- ORA reduces my 2016 Shared Services O&M forecast of $7.909 million by $3.528 million. ORA proposes these reductions in Operations Leadership and Support.[5]
- For Capital, ORA recommends the following:
    - Reduce my 2014 forecasts in total by $27.058 million, to match 2014 recorded capital expenditures.[6]
    - Reduce my 2015 forecast by $32.448 million, by incorporating 2014 spend data and employing alternate forecasts, and recommending delays in purchasing.[7]
    - For all capital areas except Routine and Non-Routine Capital Tools,[8] ORA agrees with SoCalGas' 2016 forecast.[9]

B. TURN

The Utility Reform Network (TURN) submitted testimony on May 15, 2015.[10] The following is a summary of TURN's positions:

- TURN reduces my 2016 Shared Services forecast for Operations Leadership and Support by $2.737 million, asserting portions of the Gas Distribution Monitoring and Control

[3] Exhibit ORA-10 (D. Phan), Report on SoCalGas Gas Distribution (full title truncated) (ORA-10).
[4] ORA-10, page 1, lines 24 – 25 and page 2, Table 10-1.
[5] ORA-10, page 1, lines 26 – 28.
[6] ORA-10, page 2, lines 9 – 11 and page 3, Table 10-2.
[7] ORA-10, page 2, lines 12 – 13 and page 3, Table 10-2.
[8] ORA-10, page 68, lines 2 – 12.
[9] ORA-10, page 2, lines 14 – 15 and page 3, Table 10-2.
[10] Prepared Testimony of John E. Sugar on Behalf of TURN (TURN/Sugar).

Program Assessment and Blueprint Development cost are one time and should be normalized over three years.[11]

- TURN reduces my capital forecast for Main Replacement by $4.723 million per year (2015 and 2016), on the basis that Gas Distribution's Main Replacement effort and Pipeline Integrity's DREAMS program lack coordination.[12]
- For all other areas, TURN generally supports ORA's forecasts.[13]
- TURN challenges ratepayer funding of political dues and contributions, events tickets, and logoed clothing.[14]

C. UWUA

Utility Workers Union of America (UWUA) submitted testimonies on May 15, 2015.[15] UWUA states it fully supports SoCalGas' overall GRC request. However, SoCalGas does not agree with aspects of UWUA's discussion of riser leaks and cathodic protection, as well as UWUA's opinions regarding workforce levels.

D. EDF

Environmental Defense Fund (EDF) submitted testimony on May 15, 2015.[16] EDF does not specifically propose alternate cost forecasts; however, it makes recommendations involving leak quantification, which is an issue EDF is actively pursuing in the Senate Bill (SB) 1371 Rulemaking.[17]

[11] TURN/Sugar, pages 29 – 30.
[12] TURN/Sugar, pages 31 – 39.
[13] TURN/Sugar, page 28, Part 2, Section V.
[14] Prepared Testimony of William B. Marcus on behalf of TURN (TURN/Marcus), pages 45 - 48.
[15] Exhibits UWUA-1 through UWUA-10 (UWUA-1, et al.).
[16] Opening Testimony of Environmental Defense Fund (EDF/O'Connor).
[17] Order Instituting Rulemaking (R.) 15-01-008, CPUC Gas Leak Abatement Rulemaking Pursuant to Requirements in SB 1371.

II. REBUTTAL TO PARTIES' O&M PROPOSALS

A. Non-Shared Services O&M

NON-SHARED O&M - Constant 2013 ($000)			
	Base Year 2013	**Test Year 2016**	**Change**
SoCalGas	105,258	137,077	31,819
ORA[18]	105,258	124,305	19,047

Based on a review of ORA's report, SoCalGas believes ORA's TY2016 forecast for non-shared O&M is $124,305,000 instead of $122,320,000, which is shown in ORA's Table 10-1.[19] The difference of $1,985,000 should therefore be added to ORA's TY2016 forecast for non-shared O&M as a correction. The following chart breaks out the non-shared O&M categories, and compares the forecasts of SoCalGas and ORA, based on what SoCalGas believes to represent ORA's intended forecasts. Because TURN agrees with ORA's cost analysis, TURN's amounts are likewise shown with corrected ORA forecasts.

[18] See FN 1.
[19] ORA-10, page 2.

Gas Distribution O&M Test Year 2016 Estimates
(Thousands of Constant 2013 Dollars)

	Position of Party			Difference Between Party and SCG	
	SCG	**ORA**	**TURN***	**ORA**	**TURN**
Field O&M – Locate and Mark	12,449	10,966	10,966	(1,483)	(1,483)
Field O&M – Leak Survey	7,820	7,820	7,820	-	-
Field O&M – Measurement and Regulation	11,788	11,788	11,788	-	-
Field O&M – Cathodic Protection	13,390	13,390	13,390	-	-
Field O&M – Main Maintenance**	18,900	16,228	16,228	(2,672)	(2,672)
Field O&M – Service Maintenance***	9,522	9,522	9,522	-	-
Field O&M – Field Support	24,895	21,457	21,457	(3,438)	(3,438)
Field O&M – Tools, Fittings, and Materials	7,526	7,526	7,526	-	-
Asset Management	10,827	9,458	9,458	(1,369)	(1,369)
Operations Management and Training	15,644	11,834	11,834	(3,810)	(3,810)
Regional Public Affairs	4,316	4,316	4,316	-	-
Total Non-Shared Services O&M	**137,077**	**124,305**	**124,305**	**(12,772)**	**(12,772)**

* TURN did not provide testimony for any non-shared O&M categories, but stated that they generally supported ORA's conclusions (TURN-Sugar, page 28, Part 2, Section V).

** ORA has a calculation error in their base forecast for Field O&M - Main Maintenance. Please see the discussion in the Field O&M - Main Maintenance section below for details. SoCalGas is showing that their forecast methodology should have generated $16,116,000 instead of $14,213,000.

In addition, while ORA clearly states that they do not take issue with SoCalGas' leak reduction effort under Field O&M - Main Maintenance (Exhibit ORA-10, page 13, line 6), they did not include it in the total for Field O&M - Main Maintenance in their summary tables (Exhibit ORA-10, Table 10-1 on page 2, Table 10-3 on page 6, and Table 10-6 on page 10). That omission has been corrected here, so the total shown above for Field O&M - Main Maintenance is $2,015,000 higher than ORA's summary tables.

*** ORA has a typo in their forecast for Field O&M - Service Maintenance. While they clearly state that they do not oppose SoCalGas' forecast for this area (Exhibit ORA-10, page 13, line 14), they used a total of $9,552,000 instead of $9,522,000 (Exhibit ORA-10, page 13, line 14; Table 10-1 on page 2; and Table 10-3 on page 6). This typo has been corrected in the table above, so the total shown for Field O&M - Service Maintenance is $30,000 less than shown in ORA's testimony.

1. Field O&M – Locate and Mark

Gas Distribution O&M Test Year 2016 Estimates
(Thousands of Constant 2013 Dollars)

	Position of Party			Difference Between Party and SCG	
	SCG	ORA	TURN*	ORA	TURN
Field O&M – Locate and Mark					
Base Forecast	12,449	10,966	10,966	(1,483)	(1,483)
Subtotal	**12,449**	**10,966**	**10,966**	**(1,483)**	**(1,483)**

* TURN did not provide testimony for any non-shared O&M categories, but stated that they generally supported ORA's conclusions (TURN-Sugar, page 28, Part 2, Section V).

Locate and Mark is a process mandated by 49 CFR 192 and California's "One Call" statute (Cal. Gov. Code § 4216, et seq.), which requires the owner of underground facilities to identify substructures at locations of planned excavations. The activities completed under this cost workgroup are preventative in nature and are required to avert damages caused by third-party excavators working near gas underground substructures. The work is primarily comprised of locating and marking SoCalGas' underground pipelines, conducting job observations, and performing depth checks. SoCalGas expects to see costs in this workgroup increase as economic conditions improve due to increases in construction activity near pipelines. For this reason, the Locate and Mark forecast is based on the linear trend observed during the last three years (2011 through 2013), which more accurately reflects current and future forecasted activity.

ORA recommends a $1.483 million reduction to my forecast, by using a five-year (2009-2013) linear trend instead of my three-year (2011-2013) linear trend.[20] ORA projects a lower growth level compared to SoCalGas; and while it does not oppose a linear trend, ORA asserts that SoCalGas' choice of a three-year linear trend was not explained.[21] SoCalGas does in fact explain why a three-year linear trend is appropriate. The five-year trend does not appropriately account for the increase in work anticipated over the forecast period, as construction activities continue to increase.[22] This can be seen in the 2014 recorded spending for this workgroup ($11.557 million), which has exceeded the three-year linear trend forecast for 2014 ($11.517

[20] ORA-10, page 8.
[21] ORA-10, page 8.
[22] Ex. SCG-04-R, page FBA-18, lines 19-21.

million). SoCalGas anticipates that 2015 and 2016 will follow this same linear trend as the economy continues to improve. ORA's three-year trend data includes years associated with a historic recession (2009-2010), which significantly lowers the resulting forecast. Further, including 2009-2010 in a trend analysis dampens the impact of the recent rise in construction activities and non-farm employment growth. Gas Distribution selected non-farm employment growth, as reported by IHS Global Insight, as a directional indicator for general economic conditions and potential economic growth, which generally drive construction activities.[23] As shown in the figure below,[24] non-farm employment was decreasing during the 2009 – 2010 period and has been increasing since 2011. It is expected to increase at an even faster rate during the forecast period. The non-farm employment growth during the 2011 – 2013 period is more in-line with the 2014 – 2016 forecast period.

Aggregated 12-county SoCalGas area (counties of Fresno, Imperial, Kern, Kings, Los Angeles, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara, Tulare, and Ventura).

Year	Nonfarm Employment (millions)	Nonfarm Employment (% change)
2000	7.615	
2001	7.709	1.2%
2002	7.703	-0.1%
2003	7.726	0.3%
2004	7.844	1.5%
2005	8.002	2.0%
2006	8.180	2.2%
2007	8.224	0.5%
2008	8.084	-1.7%
2009	7.579	-6.2%
2010	7.474	-1.4%
2011	7.533	0.8%
2012	7.680	1.9%
2013	7.808	1.7%
2014	7.930	1.6%
2015	8.095	2.1%
2016	8.269	2.1%

Given ORA's support for a trend analysis for this cost, my three-year trend is more reliable and indicative of test year 2016 costs, given the limitations of the data associated with 2009-2010, and a trend that incorporates that data.

[23] Ex. SCG-04-R, page FBA-18, lines 11 – 13.
[24] Ex. SCG-04-R, page FBA-B-6.

For the reasons discussed above, the Commission should adopt SoCalGas' forecast for Field O&M – Locate and Mark.

2. Field O&M – Main Maintenance

Gas Distribution O&M Test Year 2016 Estimates
(Thousands of Constant 2013 Dollars)

	Position of Party			Difference Between Party and SCG	
	SCG	ORA	TURN*	ORA	TURN
Field O&M – Main Maintenance					
Base Forecast**	16,885	14,213	14,213	(2,672)	(2,672)
Leak Reduction Effort***	2,015	2,015	2,015	-	-
Subtotal	**18,900**	**16,228**	**16,228**	**(2,672)**	**(2,672)**

* TURN did not provide testimony for any non-shared O&M categories, but stated that they generally supported ORA's conclusions (TURN-Sugar, page 28, Part 2, Section V).

** ORA has a calculation error in their base forecast for Field O&M - Main Maintenance. Please see the discussion in the Field O&M - Main Maintenance section below for details. SoCalGas is showing that their forecast methodology should have generated $16,116,000 instead of $14,213,000.

*** While ORA clearly states that they do not take issue with SoCalGas' leak reduction effort under Field O&M - Main Maintenance (Exhibit ORA-10, page 13, line 6), they did not include it in the total for Field O&M - Main Maintenance in their summary tables (Exhibit ORA-10, Table 10-1 on page 2, Table 10-3 on page 6, and Table 10-6 on page 10). That omission has been corrected here, so the total shown above for Field O&M - Main Maintenance is $2,015,000 higher than ORA's summary tables.

The main maintenance work in this workgroup is designed to meet federal (49 CFR 192) and state (General Order 112-E) pipeline safety regulations and to extend the life of distribution main pipelines and related infrastructure. Main maintenance work is generally corrective in nature and is required to keep the natural gas system operating safely and reliably. Main maintenance work is primarily comprised of leak evaluations, leak repairs, franchise alterations, compliance maintenance, and miscellaneous main maintenance. When pipelines are damaged by a third-party, Gas Distribution pursues a claim against the party responsible for the damage, and after some time, and frequently litigation, SoCalGas may receive some reimbursement, which is taken as a credit to this account. The funds that the utility collects from third parties, and which is an element of the overall Main Maintenance expense, is treated separately from the forecasts for the labor and the remaining portion of non-labor. ORA reduces my base forecast by $2.672 million, asserting that SoCalGas' method of trending the 2009-2013 for some cost elements and

not others to forecast an overall test year expense amount is inappropriate.[25] ORA claims that if SoCalGas had taken the overall historical costs of Main Maintenance, which includes the annual damage credits received, and trended these costs, the resulting forecast would be $14.213 million, or $2.672 million lower.[26]

First, ORA's forecast contains a calculation error, ORA applied the damage credits twice. The historical non-labor amounts in its calculation already include the damage credits; therefore, by including the damage credits as a separate line in its calculation, ORA double counts the credits, which results in a 2016 forecast of $14.213 million.[27] Removing the double counted credits will, under ORA's methodology, increase ORA's 2016 forecast by $1.902 million. As shown in the reconciliation below, ORA would have produced a 2016 forecast of $16.115 million:

		2009	2010	2011	2012	2013
Field O&M - Main Maintenance	Labor	5,332	5,420	7,281	7,787	8,375
	Non-Labor	1,972	2,180	3,553	5,182	2,454
	Total	7,304	7,601	10,834	12,968	10,829

5 Year Trend

2009	2010	2011	2012	2013	2014	2015	2016
7,304	7,601	10,834	12,968	10,829	13,632	14,874	16,115

The remaining difference of $770,000 is supported by the evidence presented in direct testimony that the five-year (2009–2013) average of the damage credits is best suited for these activities, given the unpredictability of damages – both in terms of frequency and severity – and the complexity and timing of collecting funds from third parties. Furthermore, the collection of the damage credit frequently can occur in a different year as the damage itself.[28]

For the reasons discussed above, the Commission should adopt SoCalGas' forecast for Field O&M – Main Maintenance.

[25] ORA-10, page 11.
[26] ORA-10, page 11, lines 9 -23.
[27] ORA-10, page 12, line 4.
[28] Ex. SCG-04-R, page FBA-34, lines 13-17.

3. Field O&M – Field Support

Gas Distribution O&M Test Year 2016 Estimates
(Thousands of Constant 2013 Dollars)

	Position of Party			Difference Between Party and SCG	
	SCG	ORA	TURN*	ORA	TURN
Field O&M – Field Support					
Base Forecast	21,729	19,446	19,446	(2,283)	(2,283)
Administrative Advisors	618	-	-	(618)	(618)
Field Instructors	412	-	-	(412)	(412)
Field Operator Qualification Training	1,948	1,948	1,948	-	-
Electronic Leak Survey Tracker	188	63	63	(125)	(125)
Subtotal	**24,895**	**21,457**	**21,457**	**(3,438)**	**(3,438)**

* TURN did not provide testimony for any non-shared O&M categories, but stated that they generally supported ORA's conclusions (TURN-Sugar, page 28, Part 2, Section V).

Recorded to the Field Support workgroup are a variety of support services necessary to successfully complete daily Gas Distribution O&M activities. The primary components are field supervision, clerical support, dispatch operations, off-production time, materials support, and removal of abandoned mains. With the projected incremental work in all of the Gas Distribution's Field O&M categories, there will be an increase in work activities within this workgroup to oversee, schedule, and support that work; such as clerical, dispatch, training, and supervision. In addition, Gas Distribution expects to see increases related to employee training, removal of abandoned pipe, and increased regulatory pressures. Given these diverse and growing influences, SoCalGas determined that a five-year (2009 through 2013) historical linear trend best reflects future requirements for this workgroup. The trend will capture the growth in work activities, which is anticipated to continue. Added to this base are the following incremental work elements not reflected in the base forecast that are necessary to adequately fund the critical Field Support activities in TY2016:

- Administrative Advisors
- Field Instructors
- Field Operator Qualification Training
- Electronic Leak Survey Tracker

a. Base Forecast

ORA reduces my base forecast by $2.283 million, using 2014 recorded cost as its test year forecast. In ORA's opinion, the 2014 recorded amount provides for an increase above the 2013 base year to account for some growth in the test year.[29] My forecast methodology is a five-year (2009 – 2013) linear trend, which is a more sound and supportable methodology than ORA's use of 2014 recorded costs. The fact that ORA observed increased costs from 2013 to 2014 suggests there is a rising trend. Further supporting a trend-based forecast are the cost drivers that are discussed in detail in my direct testimony, including the experiencing of increased regulatory pressures from additional Commission audits and compliance-driven work associated with Emergency Plans pursuant to 49 CFR 192.615 and SB 44.[30] Incremental to those regulatory pressures are operational demands for increased training and abandonment of pipe, which put upward pressure on O&M.[31] Selecting one year's cost levels to forecast the base costs in this cost category will not reflect these pressures. This is not adequate to meet the future needs.

SoCalGas' base forecast also provided for an increase above the 2013 base year to account for some growth, so it is not clear why ORA objects to SoCalGas' base forecast. SoCalGas clearly explained in its testimony why a five-year linear trend was the appropriate base forecast methodology for Field Support. This discussion can be found in my direct testimony[32] and summarized below:

- Generally, the services provided within the Field Support workgroup are driven by the amount of field work to be completed, the need for contractor oversight and support, the complexity of jobs, the number of employees, and incremental operations, compliance, and safety requirements that impact the Gas Distribution workforce. With the projected incremental work in Gas Distribution's critical maintenance and safety related Field O&M work, as discussed in the Field O&M sections of my direct testimony;[33] there will be an increase in work activities within this workgroup, such as clerical, dispatch, training, and supervision.

[29] ORA-10, page 16, lines 17 – 20.
[30] Ex. SCG-04, page FBA-44, line 30 through page FBA-45, line 3.
[31] Ex. SCG-04, page FBA-45, lines 4 – 10.
[32] Ex. SCG-04-R, pages FBA-44 – FBA-45.
[33] Ex. SCG-04, pages FBA-15 – FBA-50.

- SoCalGas is experiencing an increase in regulatory pressures, such as additional CPUC audits, which result in more record-keeping, data research activities, and follow-up.
- SoCalGas expects that employee training will increase due to additional Operator Qualification requirements, increased employee turnover caused by a maturing workforce leading to retirements, as well as generally more training required to keep employees current with ongoing changes in Gas Standards and regulations.
- Municipalities are increasing their requests to remove abandoned pipe long after the associated capital project closed, resulting in an O&M pressure that will continue to increase costs in this workgroup.

Given these diverse and growing influences, SoCalGas determined that a five-year (2009 through 2013) historical linear trend best reflects future requirements for this workgroup. These influences did not stop in 2014. They are increasing and are continuing to impact Gas Distribution's Field Support area. A linear trend of the historical expenses is necessary to adequately fund these increasing activities during the forecasted years, and for this reason, the Commission should adopt SoCalGas' base forecast for Field Support.

b. Administrative Advisors

SoCalGas' TY2016 forecast for Field O&M – Field Support includes $618,000 for six Administrative Advisors to support frontline supervisors with compliance duties, such as review of pending and completed work orders, compliance follow-up requirements, and leak survey maps for data completeness. These advisors will also:

- Perform daily, monthly, and yearly self-audits.
- Monitor and verify that employee operator qualifications are current.
- Track new business work.
- Create custom reports for tracking key performance indicators.
- Identify continuous improvement opportunities.
- Monitor compliance data tracking and follow-up required on leak orders.
- Monitor all work order statuses and create follow-up orders if field employees cannot complete the original work order for some reason.
- Coordinate CPUC district audits.
- Provide compliance training to new local field supervisors.
- Audit completed paving repairs.

- Assist district supervisors with tracking mandatory employee training.

The additional compliance support will allow local field supervisors to better manage the balance between compliance paperwork requirements, company crew support and contractor oversight. The critical nature of the role of local field supervisors is described in my direct testimony:

> Supervisors are responsible for providing daily work direction and inspecting contractor work at 52 operating bases throughout the service territory. These employees also have on-call responsibilities to respond to off-hour emergencies such as gas line breaks, damaged gas facilities, and gas leak investigations. They are in a leadership role and provide training, coaching, and mentoring to SoCalGas' frontline employees and third-party contractors. These supervisors encourage and counsel employees to work safely, follow Company procedures, deliver superior customer support, and build and maintain a safe and reliable natural gas delivery system.[34]

Generally, there are only two Distribution Field Operations Supervisors at each of the 52 Operating Districts across the territory. Supervisors of the larger sized districts supervise between 15 and 25 employees at each location and inspect various pipeline contractors who are completing construction work in their districts. In addition, the SAP work management, CLICK Schedule and CLICK Mobile new technologies installed recently help manage compliance work more accurately; however, they generate more data which requires more review by supervisors to check for completeness and to see if operational follow-up is required. To address this increase in administrative work, SoCalGas chose to propose six Administrative Advisors to complete this data mining and review rather than add more supervision to all 52 District operating locations.

ORA proposes no funding for Administrative Advisors, stating that the justification is inadequately supported.[35] ORA points out that the effective date for SB 44 and 49 CFR 192.615 was in 2011, and SoCalGas should already have been complying with these requirements.[36]

SoCalGas' Local field supervisors do currently comply with SB 44 requirements; however, additional compliance requirements have increased compliance monitoring activities for frontline supervisors, which takes away from time that they could be spending supporting field employees and overseeing contractor work in their districts. The additional compliance support from the Administrative Advisors (their multiple tasks outlined above) will allow local supervisors to better manage the balance between compliance paperwork requirements and

[34] Ex. SCG-04-R, page FBA-43, lines 6 – 13.
[35] ORA-10, page 14, line 17.
[36] ORA-10, page 14, line 17 through page 15, line 7.

company crew support and contractor oversight. Local supervisors will be able to perform additional safety field inspections and provide improved critical coaching and mentoring / counseling to field employees.[37]

For the reasons discussed above, the Commission should adopt SoCalGas' forecast for this activity.

c. Field Instructors

SoCalGas' TY2016 forecast for Field O&M – Field Support includes $412,000 for four Field Instructors to assist new Distribution employees with on-the-job training, Mobile Data Terminal support, mentoring, guidance on new policies and procedures, construction and safety inspections, and other support activities. ORA opposes funding for the incremental Field Instructors, asserting that SoCalGas has not provided adequate support for its request.[38] Since the new field technologies were implemented many years ago, in ORA's opinion, the new employees would have been already trained, and this is not a new activity in this test year period.[39]

SoCalGas disagrees with ORA's assessment of this incremental activity. ORA focuses on the new technologies that SoCalGas implemented but does not consider Gas Distribution's testimony on the need to develop a skilled and experienced workforce through field instructors:

> SoCalGas is experiencing increased pressures associated with maintaining a highly trained and qualified workforce, such as increased turnover in workforce due primarily to retirements and employee movement as a result of promotions and transfers. This presents issues of knowledge transfer, skills development, and overall proficiency of the replacement workforce. Gas Distribution is taking appropriate measures to maintain this highly skilled workforce recognizing that safety and system reliability cannot be sacrificed during a time of employee transition.[40]

In response to an ORA Data Request,[41] Gas Distribution provided data on historical retirements to demonstrate the increased turnover in its workforce:

	2009	2010	2011	2012	2013	2014
Distribution Field Employees	17	23	18	11	34	34
Field Supervisors	5	8	9	6	15	5

[37] Ex. SCG-04-R, page FBA-46, lines 4 – 7.
[38] ORA-10, page 16.
[39] ORA-10, page 15, lines 17 – 23.
[40] Ex. SCG-04-R, page FBA-46, lines 20 – 27.
[41] Data Request ORA-SCG-DR-087-DAO, Question 1.c.

With every retirement of a senior Gas Distribution field employee, there are typically three employees that will need to be trained and coached as they fill in the vacancies in classifications below that level, until SoCalGas ultimately hires from the street. As an example, when a Gas Distribution Lead Construction Technician retires, an Energy Technician – Distribution will need to be trained to be the new Lead Construction Technician, a Construction Technician will be need to be trained to become the replacement Energy Technician – Distribution, and a new Gas Distribution employee will come from some internal unrelated classification or from the street to be trained to become a Construction Technician. These employees will go through several weeks of formal training; however, centralized training only begins the process of teaching employees to perform their complex work safely, consistent with Gas Standards. Centralized training shows employees how to complete work on the most common conditions, consistent with Gas Standards.

With almost 100,000 miles of pipe installed over the decades, in all types of geographic conditions, employees will need to be taught how to apply those Gas Standards to many conditions, unique to their operating areas. When they leave centralized training to start field work, they will require coaching as they start to perform new safety sensitive activities under all of these varying conditions. The Field Instructors will provide on-the-job training in the higher turnover districts to supplement the formal centralized training, as well as the mentoring provided by local management; and will fill the need to transition the employee from training in a controlled environment to training in real work conditions. There are no Distribution Field Instructors currently; however, they have been used very effectively to train and mentor other critical safety sensitive classifications in other departments like the Customer Services Energy Technicians-Residential. Four incremental Field Instructors will enable SoCalGas to maintain a skilled, qualified, and dedicated workforce.

For the reasons discussed above, the Commission should adopt SoCalGas' forecast for this activity.

d. Electronic Leak Survey Tracker

SoCalGas' TY2016 forecast for Field O&M – Field Support includes $188,000 for Electronic Leak Survey Tracker Training. The implementation of an electronic leak survey handheld device will allow employees to perform leak survey using GPS and GIS technology to

record surveyed areas. The deployment of this technology is expected to take place in the year 2016 and will require training for field employees.

ORA does not oppose the incremental activity or total forecast, but recommends that the expenses be normalized over the three-year GRC period since the training is a one-time activity planned to take place in 2016.[42]

This training is related to a new capital tool that will be purchased by the end of 2016. ORA has no objection to the timing of the GIS-Based Leak Survey Tracker or the Leak Detection Equipment that it will be linked to, as they agree with SoCalGas' forecast for the 2016 purchase of the non-routine capital tool;[43] however, by normalizing the funding for this training, ORA is recommending that the tool deployment be delayed until after all employees have been trained in 2018. In order to deploy these tools that will enable more accuracy and real time capture of leak survey data once they are purchased, Gas Distribution needs to train all of the employees immediately who will use the new Electronic Leak Survey Tracker before the end of 2016. For this reason, the Commission should adopt SoCalGas' forecast for this training.

4. Asset Management

Gas Distribution O&M Test Year 2016 Estimates
(Thousands of Constant 2013 Dollars)

	Position of Party			Difference Between Party and SCG	
	SCG	ORA	TURN*	ORA	TURN
Asset Management					
Base Forecast	10,147	8,778	8,778	(1,369)	(1,369)
Compliance Technical Advisors	412	412	412	-	-
Administrative Control Clerk for Pipeline Records Management	268	268	268	-	-
Subtotal	**10,827**	**9,458**	**9,458**	**(1,369)**	**(1,369)**

* TURN did not provide testimony for any non-shared O&M categories, but stated that they generally supported ORA's conclusions (TURN-Sugar, page 28, Part 2, Section V).

Recorded to this workgroup are activities and associated O&M expenses incurred in the evaluation of the condition of the distribution system. This includes maintaining many asset records, identification of corrective maintenance solutions, and coordinating with field personnel

[42] ORA-10, page 16, lines 12 – 15.
[43] ORA-10, page 68, lines 2 – 12.

on completion and recording of operations and maintenance activities. SoCalGas' Technical Office provides many of the technical and administrative services needed for the successful and timely completion of the O&M activities discussed in the Field O&M sections of my direct testimony.[44] Activities include identifying construction design requirements, evaluating pressure specifications, conducting pipeline planning, providing project drawings, identifying material selection, preparing work order estimates, acquiring third-party contract services, and obtaining permits.

Asset Management work is driven by the level of operations and maintenance activity in other workgroups discussed in my direct testimony. As the level of maintenance work, general pipeline construction, municipality work and customer-generated activity increases, so will the support provided by the Technical Offices. Given these incremental activities and a review of historical costs and underlying cost drivers, SoCalGas determined that a five-year (2009 through 2013) historical linear trend best reflects future requirements for this workgroup. Added to the base forecast are incremental costs for Compliance Technical Advisors and Administrative Control Clerks for Pipeline Records Management.

ORA does not oppose the cost for the incremental positions;[45] however, ORA opposes SoCalGas' base forecast. ORA asserts that by forecasting trended growth in 2014, 2015, and 2016 while also requesting additional positions for 2016, SoCalGas is requesting funding for the growth in labor expenses twice, once with trending, and once by specifically itemizing the additional positions.[46] ORA recommends using the 2014 recorded expenses, saying it reflects the recognition of growth above the 2013 recorded level in the test year.[47]

SoCalGas disagrees with ORA's assessment of this workgroup. SoCalGas does not factor for the same growth twice. The base forecast methodology accounts for internal and external growth factors, like levels of maintenance work, general pipeline construction, municipality work, and customer-generated activity increases.[48] As this work demand increases, as forecasted in the Field Operations and Maintenance categories, so will the need for the support provided by the Technical Offices. In contrast, the incremental positions are requested for

[44] Ex. SCG-04, pages FBA-15 – FBA-50.
[45] ORA-10, page 18, lines 10 – 14.
[46] ORA-10, page 18, lines 6 – 9.
[47] ORA-10, page 18, lines 17 – 18.
[48] Ex. SCG-04-R, page FBA-52, lines 1 – 2.

factors separate from the base forecast. A list of new critical and expanded activities that these advisors and clerks will perform was provided to ORA in response to an ORA Data Request.[49] Some examples of activities for the Compliance Technical Advisors include expanding existing compliance monitoring, record-keeping, and reporting; providing additional training to field personnel and local management; and reviewing compliance reports from a broad perspective to identify and correct potential compliance issues. Examples of activities for the Administrative Control Clerks for Pipeline Records Management include tracking pipeline records being checked in and out, and verifying that documents are returned to archives.

ORA's use of the 2014 recorded cost as the test year forecast is overly simplistic and not reflective of the specific cost pressures for this workgroup, especially considering this workgroup's role in supporting the safety and reliability of SoCalGas' system by evaluating the condition of the distribution pipeline system, as described in my direct testimony.[50] SoCalGas' forecast methodology produces a more reasonable and robust result than ORA's use of 2014 recorded costs.

For the reasons discussed above, the Commission should adopt SoCalGas' forecast for Asset Management.

[49] ORA-SCG-DR-017-DAO, Questions 4 and 8 (see Appendix).
[50] Ex. SCG-04-R, page FBA-51, lines 15 – 23.

5. Operations Management and Training

Gas Distribution O&M Test Year 2016 Estimates
(Thousands of Constant 2013 Dollars)

	Position of Party			Difference Between Party and SCG	
	SCG	ORA	TURN*	ORA	TURN
Operations Management and Training					
Base Forecast	9,951	9,951	9,951	-	-
Operator Qualification Program Enhancement in Training Services - Technical Specialists, Training Instructors, Administrators	1,080	360	360	(720)	(720)
Operator Qualification Program Enhancement in Training Services - Operations Training Administrator Clerks	349	70	70	(279)	(279)
SAP Enhancement for Operator Qualifications	363	121	121	(242)	(242)
Gas Distribution - High Pressure Technical Advisors	206	-	-	(206)	(206)
Instructors for Formal Clerical Training	321	-	-	(321)	(321)
Technical Specialist for Modernization of Training Materials	350	-	-	(350)	(350)
Classroom Technology	84	28	28	(56)	(56)
Situation City Enhancement – Metal Canopy	10	3	3	(7)	(7)
Gas Operations Pipeline Maintenance - Quality Assurance Program	1,339	682	682	(657)	(657)
Gas Operations Pipeline Maintenance - Cathodic Protection Technical Advisor	206	-	-	(206)	(206)
Gas Operations Pipeline Maintenance - Compliance Assurance Technical Advisor	103	103	103	-	-
Gas Operations Pipeline Maintenance - Business Systems Advisors	206	69	69	(137)	(137)
Gas Operations Pipeline Maintenance - Technical Advisor	26	26	26	-	-
Gas Operations Construction Planning and Design - Process Advisors	210	210	210	-	-
Gas Operations Enterprise Systems Solutions - Business Systems Analysts and Manager	840	213	213	(627)	(627)
Subtotal	**15,644**	**11,834**	**11,834**	**(3,810)**	**(3,810)**

* TURN did not provide testimony for any non-shared O&M categories, but stated that they generally supported ORA's conclusions (TURN-Sugar, page 28, Part 2, Section V).

The Operations Management and Training workgroup is a critical component of managing the integrity of the pipeline system to prevent and reduce risks and is necessary to provide customers with safe and reliable service. The activities completed within this workgroup support the safety and reliability of SoCalGas' system by providing the proper level of operations leadership, field management, operations support, and field technical skills training.

In general, operations leadership, field management, operations support, and personnel training increase as levels of work and workforce increase; as new programs, processes and technologies are implemented; and as regulatory or compliance requirements change. As a foundational forecast, SoCalGas used the 2013 adjusted recorded expense, which represents the base level of leadership, management, support, training personnel, and associated non-labor necessary to maintain current operations. Added to this base are the following incremental work elements not reflected in the base forecast that are necessary to adequately fund Operations Management and Training activities in TY2016:

- Operator Qualification Program
    - Operator Qualification Program Enhancement in Training Services - Technical Specialists, Training Instructors, Administrators
    - Operator Qualification Program Enhancement in Training Services - Operations Training Administrator Clerks
    - SAP Enhancement for Operator Qualifications

- Training Services
    - Gas Distribution - High Pressure Technical Advisors
    - Instructors for Formal Clerical Training
    - Technical Specialist for Modernization of Training Materials
    - Classroom Technology
    - Situation City Enhancement – Metal Canopy

- Quality Assurance and Compliance Assurance
    - Gas Operations Pipeline Maintenance - Quality Assurance Program
    - Gas Operations Pipeline Maintenance - Cathodic Protection Technical Advisor
    - Gas Operations Pipeline Maintenance - Compliance Assurance Technical Advisor

- Field Technology Support
    - Gas Operations Pipeline Maintenance - Business Systems Advisors
    - Gas Operations Pipeline Maintenance - Technical Advisor
    - Gas Operations Construction Planning and Design - Process Advisors
    - Gas Operations Enterprise Systems Solutions - Business Systems Analysts and Manager

a. Operator Qualification Program

- Operator Qualification Program Enhancement in Training Services - Technical Specialists, Training Instructors, Administrators

SoCalGas' TY2016 forecast for Operations Management and Training includes requests for $1,080,000 for two Technical Specialists (for program development), four Training Instructors (to conduct employee training and qualification), one Subject Matter Expert (to assist in the development of program materials), and two Operator Qualification Program Administrators for the Operator Qualification program enhancements. Safety is fundamental to employee training and qualification, and maintaining a skilled, qualified and dedicated workforce is critical to SoCalGas' success. It is through the efforts of these employees that SoCalGas is able to continue to deliver safe and reliable service to its customers and maintain the integrity of its pipeline infrastructure. An integral component of overall workforce proficiency is the Operator Qualification program.

ORA believes the request for nine total FTEs is an excessive increase from the 3.5 FTE count in the base year.[51] First, the base year FTE count is 5.5, not 3.5, which SoCalGas explained to ORA in a data request response:

> In addition, several Training Instructors assisted the Operator Qualification department each year as subject matter experts with training / testing material development; however, their time was not tracked. It is estimated that their time is approximately equal to 2 FTEs per year.[52]

ORA did not count the two FTEs in the base year. Second, SoCalGas disagrees with ORA's assertion that SoCalGas' forecast is not adequately supported. [53]

To support the increase in the number of Operator Qualification tasks from 55 to 125, SoCalGas provided the list of existing and expanding tasks in a response to ORA's data request.[54] This expansion will better align with industry leading practices, which generally follow the American Society of Mechanical Engineers (ASME) B31Q standard.[55] The ASME standard is also referenced on the website of the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA), in its instructions on operator

[51] ORA-10, page 22, lines 3 – 12.
[52] Data Request ORA-SCG-DR-015-DAO, Question 4.
[53] ORA-10, page 22, line 14.
[54] ORA-SCG-DR-087-DAO, Question 2.c.
[55] ASME B31Q Edition 10 (September 30, 2010).

qualification enforcement guidance.[56] This material is given to the students who are trained by PHMSA to be auditors.

ORA also states the following:

> SoCalGas states in testimony that as a result of feedback from CPUC auditors from the CPUC operations audit on July 2013, it will add eight new elements for employees.[57] However, SoCalGas does not explain what feedback informed the decision or how SoCalGas reduced the feedback to an increase in staff. No formal written communication communicated to or from the Commission was provided to support this request.[58]

ORA's statement is not accurate, as SoCalGas provided written documentation in the form of a letter sent to the CPUC regarding the audit.[59] In response to the Area of Probable Violation IV, SoCalGas provided the following action:

> Consistent with our commitment to continuous improvement, SoCalGas will separate out four covered tasks for the NDT functions from their current location in covered task 1.4. These tasks are NDT-MT (Mag Particle), NDT-XRAY,NDT-UT (UltraSonic) and NDT-PT (Particle/Dye Penetrant) and are anticipated to be on the matrix by the end of 2014. This action is responsive to input received during a July 2013 meeting with SED Lead Auditor and the Operator Qualification, Welding and Safety Pipeline and Compliance departments to discuss NDT of contract employees.

In response to the Area of Probable Violation V, SoCalGas provided the following action:

> Consistent with our commitment to continuous improvement, SoCalGas will separate out six covered tasks for welding and fusion from their current location in covered task 1.4. These tasks include: Welding, Butt Fusion, Electro-fusion, Mechanical Fusion, Sidewall Fusion, and Socket Fusion and are striving to be on the matrix by the end of the fourth quarter of 2014. This action is also responsive to input received during the July 2013 meeting with the SED Northern Region Lead Auditor.

In addition, it appears that ORA misunderstood the data that SoCalGas provided on the number of employees qualified under the Operator Qualification Program. While the historical number of employees qualified has been approaching 1,000 in recent years, as ORA states,[60] that is not the same as the number of operator qualification tasks that these employees are qualified to perform. Each employee must be qualified in a number of tasks each year, and it is the number of tasks and the frequency of re-evaluation that are increasing under the program enhancements. Since Gas Distribution is moving to a three-year re-evaluation schedule, the incremental operator qualification tasks were spread so that approximately one-third of the tasks would be completed

[56] http://phmsa.dot.gov/foia/e-reading-room, Section III. Staff Manuals and Instructions, "OQ Enforcement Guidance (6 24 2014)."
[57] Ex. SCG-04-R, page FBA-58.
[58] ORA-10, page 23, lines 7 – 12.
[59] Data Request ORA-SCG-DR-015-DAO, Attachment ORA-SCG-DR-015-DAO_Q9.pdf.
[60] ORA-10, page 23, line 21 through page 24, line 2.

in each year 2015 – 2017, to balance the workload. The incremental increases in re-evaluations are approximately equally shared each year. 2014 was a ramp-up year with fewer tasks than the years 2015 – 2017. In response to another ORA data request, SoCalGas provided information on the incremental tasks, the hours required per employee, and the number of employees to be qualified under each task.[61] SoCalGas observes that ORA misconstrued a number of material facts contained in data request responses which, if properly construed, could have resulted in a finding of sufficient support for its request.

Further, ORA agreed with SoCalGas' forecast for the incremental time associated with the qualification of field employees (under the categories Field O&M- Measurement and Regulation,[62] Field O&M – Cathodic Protection,[63] and Field O&M – Field Support[64]). However, this increase in field operator qualification training cannot be accomplished without the enhancements to the current Operator Qualification Program being proposed in this workgroup category. There is a significant amount of work involved in developing and maintaining the training and qualification materials for each new operator qualification task as business processes and regulations change. Once a potential new operator qualification task is identified, the Operator Qualification department verifies that the task meets the four part criteria under CFR Subpart N 192.801 (b):

> (1) Is performed on a pipeline facility;
> (2) Is an operations or maintenance task;
> (3) Is performed as a requirement of this part; and
> (4) Affects the operation or integrity of the pipeline.[65]

The Operator Qualification department discusses which organizations may be effected and what potential changes might be involved in training, testing, and Gas Standard updates. Once these departments are identified, an in-person meeting is arranged with the Subject Matter Experts to discuss the new task. Once there is an agreement that the new task has met the four-part criteria, a meeting with all involved departments is arranged and a plan for implementation is developed.

This plan includes identifying all job classifications that will be impacted for both SoCalGas and SDG&E. Gas Operations Training, working with subject matter experts, will

[61] ORA-SCG-DR-087-DAO, Question 3.a.
[62] ORA-10, page 9, lines 7 -8.
[63] ORA-10, page 10, line 2.
[64] ORA-10, page 16, line 8.
[65] Data Request ORA-SCG-DR-087-DAO, Question 2.a.

select or assist with the development of suitable training material; develop testing material as necessary for both knowledge (written) and performance (hands-on) testing; and develop a timeline for implementation.

The training and testing material is developed with the assistance of a technical writer from the Gas Operations Training department. The time estimated to develop training and testing material is estimated to be 40 hours of design time for every one hour of instructor level training. In addition, this process requires additional time associated with the subject matter expert who works with the designer to develop the material.

Once the training and testing material is developed, initial training and qualifying will be rolled out to all of the impacted job classifications. This training is either conducted at the centralized training facility or in the field. As is the requirement, re-qualification is performed on a recurring cycle. Under the expanded program, re-evaluation will occur every three years for many of the Operator Qualification elements.

ORA did not explain how its forecast for this area was developed; however, they recommend reducing the funding to only one third of the level that SoCalGas forecasted for these essential program enhancements. For all of the reasons described above, the Commission should adopt SoCalGas' forecast for Technical Specialists, Training Instructors, Subject Matter Expert, and Operator Qualification Program Administrators for the Operator Qualification program enhancements.

- Operator Qualification Program Enhancement in Training Services - Operations Training Administrator Clerks

SoCalGas' TY2016 forecast for Operations Management and Training includes $349,000 for five Administrative Control Clerks to support the Operator Qualification program enhancements. ORA objects to this forecasted increase, asserting it is excessive and inadequately supported.[66] ORA states that the 70 additional tasks that SoCalGas plans to add are unsupported, and the rate of qualification of 1,000 employees each year is comparable to the employees qualified on current tasks in previous years, and as such ORA recommends only one clerk instead of five. [67]

[66] ORA-10, page 24, lines 3 – 4.
[67] ORA-10, page 24, lines 11 – 14.

ORA does not consider the list of existing and expanding tasks provided in response to a data request.[68] Also, as stated in the previous section, while the historical number of employees qualified has been approaching 1,000 in recent years, that is not the same as the number of operator qualification tasks that each employee is qualified to perform. The 55 current elements in the OpQual program result in employees needing to be qualified in three to 27 tasks each, depending on their job classification. When we increase the elements to 125, the number of tasks and the frequency of re-evaluation that are increasing under the program enhancements will increase this qualification number dramatically. Furthermore, this increase in field operator qualification[69] cannot be accomplished without enhancements to the current Operator Qualification Program. The increase in field operator qualification training will lead to a significant increase in the number of documents that will need to be initiated, logged, processed, and verified by the Operator Qualification department.

For the reasons described above, the Commission should adopt SoCalGas' forecast for Administrative Control Clerks to support the Operator Qualification program enhancements.

- SAP Enhancement for Operator Qualifications

SoCalGas' TY2016 forecast for Operations Management and Training includes $363,000 for a new electronic process to support the Operator Qualification program enhancements.

ORA does not take issue with this activity; however, they recommend a reduction to the TY2016 forecast, saying:

> SoCalGas should not receive the full requested amount for the test year. While the qualification and training of employees is a continuous process, the development of program materials to revise and/or add new tasks to the program should be a non-recurrent event.[70]

ORA's recommends normalizing SoCalGas' forecast, which would reduce the TY2016 amount to only one third of SoCalGas' forecast.

As stated above, ORA agreed with SoCalGas' forecast for the incremental time associated with the qualification of field employees;[71] however, this increase in field operator qualification cannot be accomplished without enhancements to the current Operator Qualification Program, including these SAP enhancements. The increase in field operator

[68] Data Request ORA-SCG-DR-087-DAO, Question 2.c.
[69] ORA-10, page 9, lines 7 - 8; ORA-10, page 10, line 2; and ORA-10, page 16, line 8.
[70] ORA-10, page 24, lines 18 – 21.
[71] ORA-10, page 9, lines 7 - 8; ORA-10, page 10, line 2; and ORA-10, page 16, line 8.

qualification training will lead to a significant increase in the number of documents that will need to be initiated, logged, processed, and verified by the Operator Qualification department. As stated in testimony, one of the alternatives to this electronic option was to expand the current manual data entry process, which would have added approximately 60 clerks. Given the large expense associated with adding this level of workforce, SoCalGas determined that this was not an acceptable option. Other electronic options SoCalGas reviewed are significantly more expensive. Therefore, the option that SoCalGas selected was the least cost option for the new Operator Qualification records documentation electronic process.[72] If the enhancement to SAP is not finished in 2016, it will delay the implementation of the operator qualification program expansion. SoCalGas needs the full funding that it forecasted for TY2016 in order to complete the SAP enhancement in 2016.

While this specific project is a one-time activity, Gas Distribution anticipates that it will experience other types of activities in this workgroup in future years. For example, Gas Distribution reflected $561,000 for new technology training (CPD Instructors)[73] in workpapers as an incremental cost for 2014 for Operations Management and Training. This activity was not reflected in the TY2016 forecast, but it is an example of another one-time activity experienced in this category. Normalizing the TY2016 cost for this workgroup will overly limit the level and specific types of costs recorded in this workgroup over the GRC cycle.

For the reasons discussed above, the Commission should adopt SoCalGas' forecast for this activity.

b. Training Services

- Gas Distribution - High Pressure Technical Advisors

SoCalGas' TY2016 forecast for Operations Management and Training includes $206,000 for two Technical Advisors to develop and provide high pressure pipeline construction training.

ORA asserts: "Based on SoCalGas' statements that it already received funding in rates for one position, that the training module takes one year to develop, and the fact that it already has a high pressure training program, ORA finds that SoCalGas has not adequately supported its requested funding for 2 additional FTEs."[74] While one of these positions is currently funded by the Distribution Integrity Management Program (DIMP) through 2015, it is not included in

[72] Exhibit SCG-04-R, page FBA-59, line 32 through page FBA-06, line 4.
[73] Exhibit SCG-04-WP, page 91, $561,000 forecast adjustment for CPD Instructors.
[74] ORA-10, page 27, lines 1 – 4.

Pipeline Integrity's forecast for TY2016. As such, it is an appropriate incremental request for Gas Distribution. SoCalGas explained in a data request response:

> These three activities initiated within DIMP and are currently tracked and charged to the DIMP balancing account. Starting in 2016, these activities will become part of routine operations and will no longer be tracked and charged to the DIMP balancing account. Rather, as shown in Frank Ayala's Gas Distribution testimony, these activities will be managed as part of the Gas Distribution Operations Management and Training.[75]

Gas Distribution's forecast transfers this one employee from DIMP (Pipeline Integrity) to Gas Distribution in 2016, and adds a second Technical Advisor in 2016. By recommending no funding in this area, ORA is essentially recommending that the existing FTE that is currently under DIMP be eliminated in 2016, leaving SoCalGas with zero High Pressure Technical Advisors. This does not appear to be ORA's intention, as they state, "ORA believes that the additional one position already funded through DIMP will be adequate for SoCalGas' training needs."[76] It appears that ORA misunderstood SoCalGas' forecast for this area, since the existing position currently funded through DIMP is one of the two FTEs included in Gas Distribution's forecast for TY2016.

It also appears that ORA misunderstood SoCalGas' response to another data request. SoCalGas is not just adding one high pressure training module, such that development is going to be completed in a single year. Each module is estimated to take one year to develop.

> Each module is estimated to take one year for development and one year to roll-out; however, it is anticipated that there will be an ongoing need for new modules as regulations change, policies are updated, and new technologies are introduced.[77]

Gas Distribution provided a list of some proposed modules:

> Proposed additions to the program will include double block in bleed training, non-destructive testing, and the comprehensive expanded operator qualification industry standards associated with the implementation of B31Q.[78]

The high pressure training work to be performed by these Technical Advisors is not a one-time event that will be completed in a year, but rather an ongoing activity, as these advisors keep the high pressure training material current and deliver high pressure training to employees. This was described in my direct testimony:

[75] Data Request ORA-SCG-DR-006-DAO, Question 1.d.ii.
[76] ORA-10, page 27, lines 6 – 8.
[77] Data Request ORA-SCG-DR-073-DAO, Question 6.c.
[78] Data Request ORA-SCG-DR-073-DAO, Question 6.b.

> These Technical Advisors will be dedicated to develop new and refine existing training modules and deliver initial Operator Qualification technical training to Managers and Supervisors involved with high pressure pipeline construction. In addition, this team will deliver initial technical training to contract employees who are supporting with tasks such as Welding Inspections and Pipeline Coating Inspections. This team will also incorporate new and expanded federal mandates into existing Company standards, address compliance concerns related to field construction of high pressure pipelines, modify policies and procedures as necessary, and reinforce these policy and procedure changes with technical training. These Technical Advisors will be the responsible document owners for the high pressure distribution field procedures. In addition, this team will provide on-demand field support in the area of policy and procedure interpretation, and provide recommendations on a case-by-case basis, giving consideration to any abnormal field conditions.
>
> These Technical Advisors will also be responsible for providing high pressure training sessions throughout the year.[79]

For the reasons described above, the Commission should approve Gas Distribution's forecast for High Pressure Technical Advisors.

- Instructors for Formal Clerical Training

SoCalGas' TY2016 forecast for Operations Management and Training includes $321,000 for three Instructors to develop and deliver formal courses for the office clerical workforce. The work these clerks perform directly impacts compliance and pipeline facility records management. Therefore having knowledgeable, highly-skilled clerks is critical to the safety and integrity of the gas system. As SoCalGas continues to experience increased turnover, the need for this training has increased.

ORA recommends no funding for this area, saying that "SoCalGas has not presented adequate support for why existing training cannot also be used to train new clerical employees."[80] ORA points out that the existing clerks have all been trained, and that the new technologies were implemented many years ago. ORA also points out that "SoCalGas already has a training process in place for training existing clerical staff."[81] However, as SoCalGas has stated, it is not a formal training program:

> As stated in testimony, the employees currently completing work have been trained on the job. As of March 2015, the formal centralized training classes for new clerical employees are in the process of being created and have not been delivered. While

[79] Ex. SCG-04-R, page FBA-60 line 28 through page FBA-61, line 10.
[80] ORA-10, page 28, lines 2 – 5.
[81] ORA-10, page 27, lines 24 – 25.

> having received no centralized formal training, the existing Distribution office clerks have received end-user training as the new technologies have been implemented.[82]

Existing clerical employees have been trained on the job, and they received training when the new technologies were rolled out. The training for the new technologies was only provided when the technologies were rolled out, and is not an ongoing training available for future new employees. In addition, Gas Distribution continues to complete hundreds of enhancements to the technologies and the corresponding business processes as external forces and internal standards change. Each enhancement requires updating training modules and providing new training to the existing employees and their replacements.

These new technologies have changed the clerical work from a manual process to a more complex computerized one, so on-the-job training is not an effective method to train future clerical employees. The computerized processes of the new technologies require formal training materials which will deliver specific and consistent information on the new electronic systems, updated Gas Standards, and work processes. Job aid training handouts need to be developed by the training instructors so that methods followed are consistent in all technical offices.

For the reasons described above, the Commission should approve Gas Distribution's forecast for Instructors for formal clerical training.

- Technical Specialist for Modernization of Training Materials

SoCalGas' TY2016 forecast for Operations Management and Training includes $350,000 for three Technical Specialists to modernize training videos and instructional content.

ORA takes issue with this forecast, saying that current formal training includes up-to-date regulations, Gas Standards, and changes in business practices and field technologies.[83] ORA says that updating training materials is part of the existing work of Training Services, not a new work activity.[84] For this reason, ORA recommends no funding for this area.[85]

Gas Distribution's request for this area is specifically for updating training videos, which are used as visual aids. Over time, videos become obsolete as regulations, Gas Standards, field technologies, and business practices change. The updating of videos has not been part of the existing work of Training Services, so this is a new work activity.

[82] Data Request ORA-SCG-DR-073-DAO, Question 3.a.
[83] ORA-10, page 28, lines 12 – 14.
[84] ORA-10, page 28, lines 23 – 24.
[85] ORA-10, page 29, line 2.

Hazardous and unsatisfactory conditions occurring across the country have resulted in new guidelines designed to eliminate potential hazards. Videos currently shown in training contain outdated safety equipment and tools. These videos do not include process steps that have been added for safety, such as tools for pressure control, venting gas, purging pipelines, marking for valve inspections, and other documentation steps required in the construction process. When showing outdated videos to students, instructors have to make disclaimers for the outdated materials and explain differences with current processes.

SoCalGas currently has over 35 videos that are outdated and need complete updating. The cost of having the material developed by outside vendors can exceed $100,000 per video, excluding the time of SoCalGas subject matter experts. By using SoCalGas employees to develop the videos instead of external vendors, there will be a small trade-off in professional quality; however, it will cost less. The forecasted number of technical specialists was estimated based on completing the videos in a timely way and the estimated time to keep these videos current considering changing external requirements, laws, and regulations.

The Commission should approve SoCalGas' forecast for this area so that Gas Distribution can start to update its videos to reflect current safety procedures, new equipment and tools, and changes in regulations.

- Classroom Technology

SoCalGas' TY2016 forecast for Operations Management and Training includes $84,000 to upgrade training material such as screens, mounting hardware, and cables.

ORA does not oppose this request; however since this is a one-time purchase, they recommend normalizing SoCalGas' forecast, which would reduce the TY2016 amount to only one third of SoCalGas' forecast.[86]

ORA's proposed reduction would delay SoCalGas' installation of this equipment. SoCalGas anticipates that this installation will be completed in 2016, so they expect to spend the full amount in 2016.

While this specific project is a one-time activity, the same expectation that exists for SAP Enhancement for Operator Qualifications applies to this cost category. That is, the Operations

[86] ORA-10, page 29, lines 3 – 7.

Management and Training workgroup will be used for costs for other types of activities in future years, like the CPD Instructors training shown in the 2014 forecast year.[87]

For the reasons above, the Commission should approve SoCalGas' TY2016 forecast for Classroom Technology.

- Situation City Enhancement – Metal Canopy

SoCalGas' TY2016 forecast for Operations Management and Training includes $10,000 for a new metal canopy in Situation City, a simulation training facility, where students can gather to receive safety and course matter instructions.

ORA does not oppose this request; however since this is a one-time purchase, they recommend normalizing SoCalGas' forecast, which would reduce the TY2016 amount to only one third of SoCalGas' forecast.[88]

ORA's proposed reduction would delay SoCalGas' installation of the new metal canopy. SoCalGas anticipates that this installation will be completed in 2016, so they expect to spend the full amount in 2016.

While this specific project is a one-time activity, the same expectation that exists for SAP Enhancement for Operator Qualifications and Classroom Technology applies to this cost category.

For the reasons above, the Commission should approve SoCalGas' TY2016 forecast for the metal canopy.

c. Quality Assurance and Compliance Assurance

- Gas Operations Pipeline Maintenance – Quality Assurance Program

SoCalGas' TY2016 forecast for Operations Management and Training includes $1,339,000 for twelve Quality Assurance Specialists and one Team Lead for the expanded Quality Assurance program. The expanded Quality Assurance program will perform audits for leak survey, pipeline patrol, bridge and spans, valve inspections, and locate and mark. The new Quality Assurance Specialists will bring consistency across the entire Company with respect to how these audits are performed, the elements that are examined, and the follow-up corrective action that must be completed, documented, and verified. Additionally, this centralized audit function will be better equipped to identify trends, provide direct employee refresher training,

[87] Exhibit SCG-04-WP, page 91, $561,000 forecast adjustment for CPD Instructors.
[88] ORA-10, page 29, lines 3 – 7.

and determine the effectiveness and adequacy of the procedures used in normal operations and maintenance activities and recommend modifications or enhancements to policies and procedures when deficiencies are found.[89]

ORA takes issue with this forecast, asserting that SoCalGas has not provided adequate support for the proposed audit frequency level or the forecasted funding amount.[90] ORA states that since SoCalGas' forecast is for twice the number of auditors that it currently has in the DIMP pilot program, the funding should only be twice the funding recorded to DIMP in 2013.[91]

SoCalGas disagrees with ORA's assessment. The table below shows the data that is used by ORA,[92] showing the expenses and employees in the DIMP Quality Assurance Program.

	2011	2012	2013
Employees	2 Part Time*	2 Part Time*	5**
Annual Expense (Nominal $)	$ 78,772	$ 17,226	$ 340,955

* Part Time Instructors

** DIMP Quality Assurance Program fully staffed in the third quarter of 2013

As indicated by the note below the table, the program did not have the full five employees until the third quarter of 2013. Therefore, ORA's recommendation for twice the amount of costs in 2016 for twice the number of auditors should not be based on a figure ($340,955) that does not represent costs for five employees for the full year.

In addition, SoCalGas' forecast is for 13 employees, which is more than double the five employees that were in the program at the end of 2013, during the pilot. The pilot was intended to identify the opportunities for program enhancement and propose a right-sized quality assurance organization. The 13 positions forecasted include the incremental five FTEs that were previously funded by DIMP and provide the additional resources necessary to complete the safety, consistency, compliance, and reliability assurance objectives of the Quality Assurance Program. ORA states that SoCalGas did not provide adequate support for the proposed audit frequency level; however, SoCalGas provided the following information in response to a data request, which does support the expected rise in audit frequency:

[89] Ex. SCG-04-R, page FBA-64, lines 6 – 13.
[90] ORA-10, page 30, lines 18 – 20.
[91] ORA-10, page 30, lines 16 – 18.
[92] Data Request ORA-SCG-DR-015-DAO, Question 6.a.

> Locate and Mark audits are currently completed twice a year for each base. Leak Survey, Pipeline Patrol, Bridge and Span, and Valve Inspection audits are completed four times per year for each base. Data gathered to date demonstrates not only the need for this critical program, but the expansion and deepening of the program. By expanding this program, each base will be audited at an increased rate of six audits per year (every other month) in 2016. This increased rate will benefit each base in several ways, including reinforcement of current policies and methods, reinforcement of revised policies and methods when updates occur, enhanced communication between bases and QA regarding possible or suspected deficiencies in policies and/or procedures, immediate feedback to employees if there are gaps in training, and increased developmental opportunities for employees performing compliance inspections and locate and mark functions.[93]

For the reasons described above, the Commission should adopt SoCalGas' forecast for this Quality Assurance Program.

- Gas Operations Pipeline Maintenance – Cathodic Protection Technical Advisor

SoCalGas' TY2016 forecast for Operations Management and Training includes $206,000 for two Cathodic Protection Technical Advisors.

ORA takes issue with SoCalGas' forecast for this area, and recommends zero funding, saying that the request is excessive and inadequately supported. ORA points to the funding that they recommended in the area of Field O&M – Cathodic Protection, and states that these additional employees are excessive.

SoCalGas disagrees with ORA's assessment. These employees are separate from the forecasted Cathodic Protection (CP) System Enhancements in the area of Field O&M – Cathodic Protection. These Technical Advisors are needed to support the growing need for additional technical expertise, analysis of trends, mitigation program development, and training. As described in my direct testimony:

> Due to long term deterioration of coating on older pipeline systems, CP systems are requiring additional analysis and improvements to maintain and improve corrosion control practices. The analysis and development of improvement projects requires additional technical and analytical expertise. Furthermore, workforce turnover in cathodic protection field positions, will lead to a loss of expertise in certain areas of the Company. Employees with less time in the job, require more ongoing technical support with CP troubleshooting, understanding how to apply cathodic protection practices, and when to use each of the cathodic protection methods (magnesium anodes, rectifier protection, shallow well, deep well, bond, insulator, etc.).[94]

[93] Data Request ORA-SCG-DR-074-DAO, Question 1.e.
[94] Ex. SCG-04-R, page FBA-64, line 30 through page FBA-65, line 5.

In response to a data request,[95] SoCalGas provided the number of cathodic protection employees who will be eligible to retire in each forecast year.

Employee Classification	Current Employees (As of 4/28/14)	Number of Employees Eligible to Retire			Percentage of Employees Eligible to Retire		
		2014	2015	2016	2014	2015	2016
Lead System Protection Specialist / Planner	13	10	10	10	77%	77%	77%
System Protection Specialist	63	25	27	30	40%	43%	48%

SoCalGas' request for Cathodic Protection Technical Advisors will provide the newer employees and their supervisors with the technical support that they will need. For the reasons provided above, the Commission should adopt SoCalGas' forecast for this the Cathodic Protection Technical Advisors.

- Gas Operations Pipeline Maintenance – Business Systems Advisors

SoCalGas' TY2016 forecast for Operations Management and Training includes $206,000 for two Business Systems Advisors to develop, test, and implement a data warehouse reporting tool.

ORA does not oppose this activity; however, they believe that it is "a one-time activity and SoCalGas has not provided adequate support for the continuous funding of these positions beyond the test year."[96] For this reason, ORA recommend normalizing SoCalGas' forecast, which would reduce the TY2016 amount to $69,000, only one third of SoCalGas' forecast.[97]

ORA's statement that this is a one-time activity is not accurate. This is not a one-time expense, but rather an ongoing activity. The ongoing activities are described in my direct testimony:

> These Advisors will train Region employees in the use of the reporting tool and will also provide reports and develop ad hoc queries for Distribution Operations to help more effectively manage its business.[98]

In order to provide continued support for this new tool, ongoing funding is required, starting in 2015 and continuing after 2016. The level of funding that ORA is recommending would not

[95] Data Request ORA-SCG-DR-015-DAO, Question 7.g.
[96] ORA-10, page 32, lines 14 – 16.
[97] ORA-10, page 32, lines 16 - 17.
[98] Ex. SCG-04-R, page FBA-66, lines 27 – 30.

even cover a single incremental employee, and would not adequately fund this activity. Below are examples of ongoing services that these employees will provide:

- Run the compliance reports routinely and address high priority concerns with the affected user groups to ensure concerns are addressed appropriately to reduce the risk of non-compliance.
- Run the key performance indicator (KPI) reports routinely and address concerns with the affected user groups to ensure concerns are addressed appropriately.
- Perform analysis of the KPI reports and help assess the reliability of Gas Distribution systems and processes. The monitoring of these KPIs will help assist Gas Operations run its business safely and efficiently.
- Be the point of contact for all data requests related to compliance activities that cannot be addressed through existing reports. These data requests may come from CPUC auditors, internal auditors, senior management, and other interested stakeholders.
- Meet routinely with affected user groups to address any potential modifications or new report requests.
- Work directly with Compliance Assurance and Business Intelligence Information Technology departments to document requirements, test solutions implemented by IT, and train affected user groups on the use of modified or new reports.
- Provide quarterly training to Field Supervisors and Region Clerical on all the available compliance reports, and provide miscellaneous training to Area Managers and Field Supervisors on the available KPI reports. For both types of reports, describe how each report benefits their organizations, the frequency of use of each report, and how to address any issues identified on the reports. This training is required due to the high turnover in the positions that use these reports as well as changes and additions in KPIs.

In addition, ORA's proposed normalization of costs should be based on the full cost of the program, not just costs for 2016. SoCalGas' forecast has this activity starting in 2015, and continuing through 2016 and beyond. Even if ORA had only considered the forecast shown in 2015 and 2016, and not future years, the normalized cost would have been higher than its forecast.

For these reasons, the Commission should approve SoCalGas' TY2016 forecast for these Business Systems Advisors.

d. Field Technology Support

- Gas Operations Enterprise System Solutions – Business Systems Analysts and Manager

SoCalGas' TY2016 forecast for Operations Management and Training includes $840,000 for seven Business Analysts and one Project Manager to support Operational Excellence 20/20 Program projects and implementation of SAP Plant Maintenance (SAP-PM) as the work management system. These employees will provide live help desk support to over 1,200 employees and quality assurance support upon execution of system enhancements.

ORA takes issue with SoCalGas' forecast for this area, saying that SoCalGas provided inadequate justification for two of the forecasted positions, and that help desk support for new programs or software "is not a continuous activity, but one that decreases with time as employees adapt."[99] ORA's forecast is based on removing two of SoCalGas' forecasted FTEs and normalizing the remaining FTEs and associated expenses. ORA's resulting forecast is $213,000 per year.

SoCalGas disagrees with ORA's assessment that this help desk support is not continuous. This team provides support for more than 1,000 field mobile data terminals, which periodically need to be repaired or upgraded. In addition, as operating systems and software programs are regularly upgraded by vendors, the computer applications must be accordingly upgraded, tested, and deployed to accommodate the upgrades to the core systems. Some enhancements are extensive and users require timely support to effectively use the systems in their daily work. For this reason, Gas Distribution does not expect the need for help desk support to decrease after 2016.

In addition, ORA did not consider all of the ongoing support activities that will be provided by this group. In addition to the ongoing help desk support for over 1,200 employees, and their ongoing replacements, this team has additional activities, as described in my direct testimony:

> Regulatory, business and work practice changes will drive system enhancements of these automated tools as identified by users and process owners, requiring detailed analysis, planning and implementation over the next several years. Furthermore, the above Work Management, Scheduling and Mobile applications are highly integrated

[99] ORA-10, page 33, lines 13 – 14.

> with other information systems and hence, require substantial Quality Assurance support upon execution of system enhancements to verify all systems are working properly.[100]

This is the technology support group that keeps more than 1,000 mobile data collection units up and running. Without these units, distribution work orders cannot be scheduled and sent to the field for execution. These activities are not expected to decrease after 2016.

In order to meet the day-to-day support activities of the applications that were deployed through the Operational Excellence 20/20 Program, Gas Distribution forecasted six incremental Business Systems Analysts to provide timely support to more than 1,200 users in the field and to monitor interfaces between systems. Reducing the funding for these employees, as ORA is recommending, would significantly delay critical support to the field, which would lead to delays in field O&M and capital work, some of which is mandated compliance and safety-related.

In addition to these day-to-day support activities, there are more than 250 pending enhancements that need to be planned and implemented in order to meet user expectations, business process, and regulatory requirements. For each of these enhancements, a Business Systems Analyst gathers requirements to clearly define the work that is needed. The Project Manager then coordinates the implementation of the enhancement or change requests. These pending enhancements and change requests cannot be effectively completed without the two positions.

In addition, ORA's normalization proposal should have been based on the full cost of the program, not just costs for 2016. SoCalGas' forecast has this activity starting in 2015 and continuing through 2016 and beyond. Even if ORA had only considered the forecast shown in 2015 and 2016, and not future years, the normalized cost would have been higher than its forecast.

For the reasons described above, the Commission should approve SoCalGas' TY2016 forecast for these Business Systems Analysts and Project Manager.

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[100] Ex. SCG-04-R, page FBA-68, lines 1 - 6.

B. Shared Services O&M

SHARED O&M - Constant 2013 ($000)			
	Base Year 2013	**Test Year 2016**	**Change**
SoCalGas	3,409	7,909	4,500
ORA	3,409	4,381	972
TURN	3,409	5,172	1,763

1. Operations Leadership and Support

Gas Distribution O&M Test Year 2016 Estimates
(Thousands of Constant 2013 Dollars)

	Position of Party			**Difference Between Party and SCG**	
	SCG	**ORA**	**TURN**	**ORA**	**TURN**
Operations Leadership and Support					
Base Forecast	3,409	3,409	3,409	-	-
Gas Distribution Monitoring and Control Program Assessment and Blueprint Development Components:					
- Benchmarking	*876*	*876*	*292*	*-*	*(584)*
- Remote Monitoring and Control Plan	*1,752*	*-*	*584*	*(1,752)*	*(1,168)*
- Enhancement of Current Business Processes Plan	*876*	*-*	*292*	*(876)*	*(584)*
- Implementation and Ongoing Support Team	*339*	*-*	*339*	*(339)*	*-*
- Miscellaneous Non-Labor Expenses	*657*	*96*	*256*	*(561)*	*(401)*
Subtotal for Gas Distribution Monitoring and Control Program Assessment and Blueprint Development	4,500	972	1,763	(3,528)	(2,737)
Total*	**7,909**	**4,381**	**5,172**	**(3,528)**	**(2,737)**

* ORA has a discrepancy between their tables for Operations Leadership and Support. In Table 10-12 on page 35 where, they address this topic, they show a total of $4,381,000; however, in the summary Table 10-1 on page 2, they show $4,384,000. The total shown in the table above reflects what ORA stated in the testimony section for Operations Leadership and Support (Exhibit ORA-10, page 38, lines 19 - 20). For this reason, the total shown above is $3,000 less than ORA's summary Table 10-1.

Similar to the O&M Non-Shared Services workgroup, Operations Management and Training, the activities completed within this category are related to operations leadership, operations support, and field training, all of which are necessary for SoCalGas' ability to provide

customers with safe and reliable service. The personnel covered under this workgroup are tasked with appropriately considering risk when providing service to Gas Distribution personnel, including in leadership decisions of short and long term objectives, development of appropriate gas standards and field training programs, development of appropriate employee qualification programs, and efficient support of field technologies and equipment.

In projecting the future expense requirements for these functions, SoCalGas reviewed the 2009 through 2013 historical spending for this entire workgroup. The 2013 adjusted recorded expense represents the base level of leadership, management, support, training personnel, and services necessary to maintain current operations. Added to this base is the following incremental work element -- Gas Distribution Monitoring and Control Program Assessment and Blueprint Development -- not reflected in the base forecast that is necessary to adequately fund Operations Leadership and Support activities in TY2016.

SoCalGas' TY2016 forecast for Operations Leadership and Support includes $4,500,000 for a Gas Distribution Monitoring and Control Program Assessment and Blueprint Development. SoCalGas and SDG&E have a long history of providing safe and reliable service to customers. As they continue to enhance pipeline systems and business processes to improve asset knowledge, better monitor and control gas distribution pipeline infrastructure, and more quickly respond to emergencies, SoCalGas and SDG&E will incur incremental costs for the implementation of a Gas Distribution Monitoring and Control Program. This program will be designed and developed to significantly enhance their capability to remotely monitor and control their gas distribution system, providing the ability to more quickly and effectively respond to emergencies. The overall objective of this program is to enhance public and employee safety and system reliability. Furthermore, this effort is in compliance with the requirements of Public Utilities Code Sections 961 and 963, which were enacted by SB 705. Section 961 requires pipeline operators to provide "[e]quipment and personnel procedures to limit the damage from accidents," "[t]imely response to reports of leaks, hazardous conditions, and emergency events," and "[p]repare for and respond to earthquakes and other major events."[101]

This incremental project was forecasted as five components:

1. Benchmarking ($876,000)
2. Remote Monitoring and Control Plan ($1,752,000)

[101] Cal. Pub. Util. Code § 961(d)(5,6,8).

3. Enhancement of Current Business Processes Plan ($876,000)
4. Implementation and Ongoing Support Team ($339,000)
5. Miscellaneous Non-Labor Expenses ($657,000)

ORA and TURN propose reductions in these components, as described below.

a. ORA

- Benchmarking

  ORA agrees with SoCalGas' base forecast for this component.[102]

- Remote Monitoring and Control Plan

  ORA recommends that the Commission reject SoCalGas' forecast for the Remote Monitoring and Control Plan, saying that it is premature, and the benchmark must first be performed to see what changes should be made, how, and when.[103] ORA only discusses the electronic pressure monitors and the next generation enhancements to those monitors, asserting: "SoCalGas' benchmark is an exploratory study to determine the next generation of pressure monitoring enhancements. Therefore it is not imperative that funding be made immediately available for the possibility of changing its current remote monitoring practices and/or tools."[104] ORA's statement referred to a specific data request question about electronic pressure monitors; however, the remote monitoring and control plan is about much more than just pressure monitoring. Additional examples of activities that would be contemplated were provided in my direct testimony:

  - Development of a plan for the installation of controls at pipeline valves, as appropriate for the pipeline function and in accordance with code requirements, such as DOT 49 CFR 192, parts 179, 181 and 935. Automatic valve controls allow pipeline operators to further enhance response time to isolate a pipeline following a rupture caused by earthquakes, landslides, third party impacts, or other significant events. SoCalGas and SDG&E operate a large number of valves. The valve installation plan will need to provide a blueprint and selection criteria for addressing installation of controls at critical valves such as:

    - In-line supply line valves
    - Regulator station inlet valves
    - Fire control valves

[102] ORA-10, page 36, lines 2 - 4.
[103] ORA-10, page 36, lines 6 – 13.
[104] ORA-10, page 36, lines 15 – 19.

- Development of a field workforce plan for ongoing operations and maintenance of the new monitoring and control field equipment.[105]

In addition, SoCalGas explained in a data request response that the Gas Distribution Control Center Plan is also included in the Remote Infrastructure Monitoring and Control Plan,[106] which covers items such as the following:

- Plan for the development and implementation of a Gas Distribution Control Center. This plan will assess items such as the level of integration between this new control center and the current Transmission Control Center, the dispatch function, and the Gas Emergency Centers; as well as the degree of physical and virtual integration.

- Plan for a centralized Control Center to utilize the integrated dispatch of personnel, gas system analysis technical support, and monitored information (electronic pressure monitors and SCADA) to provide centralized and efficient emergency response on a 24/7 basis.

- Plan for upgrading the SCADA system to incorporate the additional real-time operating data-telemetry communication sites throughout the distribution pipeline system. This will include recommendation of the type of communications needed for the new sites.

- Workforce plan for the personnel needed to staff the Control Center, and to maintain and operate the SCADA system.

- Plan describing the requirement for building space, equipment and technology needed for the additional personnel and facilities.

- Plan for the ongoing operations and maintenance of the new systems, facilities and equipment.[107]

Gas Distribution plans to move forward with the development of the Remote Monitoring and Control Plan as soon as the Benchmarking study is completed. There is no reason to wait until the entire blueprint is laid out. There will always be advancements in technology, so it does not make sense to wait on the next generation of enhancements. The Remote Monitoring and Control Plan can be developed with information gathered during the Benchmarking study. To wait would make the Benchmarking study less than optimal. Gas Distribution believes the deployment of the early phases of the blueprint, based on the benchmarking and best practices in

[105] Ex. SCG-04-R, page FBA-85, lines 1 – 13.
[106] Data Request ORA-SCG-DR-009-DAO, Question 3.
[107] Ex. SCG-04-R, page FBA-85, line 19 through page FBA-86, line 6.

the industry, can be implemented while finalizing the overall blueprint deployment strategy, thus expediting the advantages of the Gas Control and Monitoring program. For these reasons, the Commission should adopt SoCalGas' forecast for this activity.

- Enhancement of Current Business Processes Plan

ORA recommends that the Commission reject SoCalGas' Enhancement of Current Business Processes Plan, saying that "the benchmarking study has not been performed and, at this time, it is not known whether deficiencies exist with SoCalGas' current process to remotely monitor and control its gas distribution system if any changes need to be made and to what extent."[108]

As discussed above, it does not make sense for SoCalGas to wait on the development of the final Remote Monitoring and Control Plan. If SoCalGas waits until the Benchmarking and the final Remote Monitoring and Control Plan are complete before we start deployment of enhancements, the benchmarking will be outdated by the time SoCalGas seeks funding to implement the Plan in the next GRC cycle. Deployment can be fast tracked and begin in parallel to the completion of all phases of the study. As that plan is developed, changes will need to be made to current related business processes. This plan is not about addressing deficiencies in SoCalGas' current processes, but rather identifying continuous improvement opportunities and updating current processes as needed, so that they are consistent with the Remote Monitoring and Control Plan. The activities described below are necessary changes that will need to take place in order to integrate the Gas Distribution Monitoring and Control Plan with current operations.

- Development of training materials to reflect changes to work processes
- Updating of gas standards and work processes
- Updating of emergency procedures to better integrate the control, dispatch, and emergency response functions
- Development of a plan to provide centralized Technical/Engineering personnel for 24/7 support of emergency shutdown procedures at the Gas Distribution Control Center.[109]

[108] ORA-10, page 37, lines 5 – 8.
[109] Ex. SCG-04-R, page FBA-86, lines 12 – 18.

For this reason, the Commission should adopt SoCalGas' forecast for this activity so that Gas Distribution can begin these continuous improvements.

- Implementation and Ongoing Support Team

ORA recommends that ORA reject SoCalGas' forecast for Implementation and Ongoing Support Team, saying that it is premature to move forward as the benchmark study has not been carried out, and SoCalGas has not yet identified any risks and/or deficiencies with its current processes.[110]

As discussed above, Gas Distribution already knows of some items that will be included in the Monitoring and Control Plan, so the project will move forward while later phase planning is completed. It is not necessary to wait on the results of the benchmarking study to start implementing a team of employees that can move forward with early phase implementation and support. The results of the benchmarking study will help refine components of the plan; however Gas Distribution already plans to move forward with this project once the earliest phases are completed, so it is not necessary to wait on the total Blueprint study results.

For the reasons described above, the Commission should adopt SoCalGas' timeline and forecast for this activity.

- Miscellaneous Non-Labor Expenses

ORA takes issue with SoCalGas' forecast methodology for Miscellaneous Non-Labor Expenses. ORA bases its forecast on the 2013 non-labor ratio for the parent cost center, saying that SoCalGas' percentage was not comparable to historical numbers.[111]

SoCalGas disagrees with ORA's calculation method. The parent cost center for this incremental activity includes the expenses for the Vice President for the Field Operations organization, his or her assistant, and one-time expenses that benefit the entire organization.[112] These expenses will continue on into the future, while Gas Distribution also incurs expenses for this new organization. The ratio of non-labor associated with a vice president and assistant would not be comparable to the incremental non-labor associated with developing a new team of employees for the Control and Monitoring Program. There are many non-labor costs associated with setting up a new department, such as purchasing office equipment and technology items.

[110] ORA-10, page 37, lines 16 – 19.
[111] ORA-10, page 38, lines 3 – 12.
[112] Ex. SCG-04-R, page FBA-78, lines 6 – 8.

For this reason, the Commission should adopt SoCalGas' forecast methodology for this activity, and use a ratio of 17% for the miscellaneous non-labor expenses.

b. TURN

- Benchmarking, Remote Monitoring and Control Plan, and Enhancement of Current Business Processes Plan

TURN does not oppose this project; however, since these are one-time costs, it recommends normalizing the forecasts for Benchmarking, the Remote Monitoring and Control Plan, and the Enhancement of Current Business Processes Plan, which would reduce the TY2016 amount to only one third of SoCalGas' forecast for these components.[113]

By reducing the funding for this project, TURN is delaying its implementation. In addition, TURN is not consistent in its recommendation for the different components of the project. It normalizes the portions of the project that are one-time expenses, spreading them over three years. If TURN treated the forecast for the Implementation and Ongoing Support Team and associated miscellaneous non-labor in the same way, it would have actually increased the funding for that component of the project. The TY2016 forecast for the Implementation and Ongoing Support Team only covers the last month of 2016, after the completion of the Benchmarking, the Remote Monitoring and Control Plan, and the Enhancements of Current Business Processes Plan. Using TURN's methodology for 2017 and 2018, this one month would need to be multiplied by 12 in order to cover the full year of funding for this ongoing support team. The resulting forecast, as shown under "Normalized Forecast" in the table below, would actually be higher than SoCalGas' forecast for TY2016. By selectively normalizing the one-time costs, but only recommending the initial partial year (one month) for the ongoing costs, TURN has significantly reduced SoCalGas' forecast. If it had treated all components in the same way, normalizing the whole project, TURN's TY2016 forecast would have been $4.7 million instead of $1.8 million, as shown below.

[113] TURN/Sugar, pages 29 – 30.

Thousands of 2013$	2016	2017	2018	3-Year Total	Normalized Forecast	TURN's Forecast
Benchmarking	876	-	-	876	292	292
Rmote Monitoring and Control Plan	1,752	-	-	1,752	584	584
Enhancement of Current Business Processes Plan	876	-	-	876	292	292
Implementation and Ongoing Support Team	339	4,068	4,068	8,475	2,825	339
Miscellaneous Non-Labor (17%)	657	692	692	2,040	680	256
Total	4,500	4,760	4,760	14,019	4,673	1,763

For this reason, the Commission should adopt SoCalGas' forecast for this activity.

- Implementation and Ongoing Support Team

While ORA took issue with SoCalGas' forecast for this component, TURN did not.[114]

- Miscellaneous Non-Labor Expenses

TURN agreed with SoCalGas' forecast methodology for the miscellaneous non-labor expenses; however, TURN applied the non-labor percentage to its own normalized forecast. As discussed above, the Commission should adopt SoCalGas' forecast for the other components of this project as reasonable, which would result in SoCalGas' forecasted total for the miscellaneous non-labor.

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[114] TURN/Sugar, page 30.

III. REBUTTAL TO PARTIES' CAPITAL PROPOSALS

TOTAL CAPITAL - Constant 2013 ($000)			
	2014	**2015**	**2016**
SoCalGas	274,426	271,848	273,616
ORA[115]	247,368	239,400	273,626
TURN	247,368	244,872	268,903

For all capital categories, ORA recommends that the 2014 recorded expenditures be adopted in lieu of SoCalGas' 2014 forecasts.[116] SoCalGas does not oppose ORA's recommendation for 2014, but stresses that 2014 recorded levels will provide additional support for SoCalGas' full 2015 and 2016 forecasts. ORA accepts SoCalGas' 2015 and 2016 forecasts for the following categories: Pressure Betterments,[117] Service Replacements,[118] Main and Service Abandonments,[119] Regulator Stations,[120] Cathodic Protection Capital,[121] Pipeline Relocations – Freeway,[122] and Pipeline Relocations – Franchise.[123] The Commission should adopt SoCalGas' 2015 and 2016 forecasts. The following charts detail the capital cost forecasts for SoCalGas, ORA, and TURN, by year.

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[115] SoCalGas reflects what it believes to be corrected figures, as compared to those reflected in ORA's summary tables (2014 - $247,447,000, 2015 - $239,391,000, 2016 - $273,616,000).
[116] ORA-10, page 2, lines 9 – 11 and page 3, Table 10-2.
[117] ORA-10, page 45, lines 22 – 23.
[118] ORA-10, page 50, lines 15 – 16.
[119] ORA-10, page 51, lines 9 – 10.
[120] ORA-10, page 52, line 14 – 15.
[121] ORA-10, page 54, line 11 – 12.
[122] ORA-10, page 55, lines 10 – 11.
[123] ORA-10, page 56, lines 19 – 20.

Gas Distribution Capital Estimates
(Thousands of Constant 2013 Dollars)

	Position of Party			Difference Between Party and SCG	
	SCG	ORA	TURN*	ORA	TURN
2014 Capital					
New Business	24,190	25,873	25,873	1,683	1,683
Pressure Betterments	27,561	38,215	38,215	10,654	10,654
Supply Line Replacements	4,267	3,734	3,734	(533)	(533)
Main Replacements	47,233	28,497	28,497	(18,736)	(18,736)
Service Replacements	22,217	22,199	22,199	(18)	(18)
Main & Service Abandonments	3,582	5,012	5,012	1,430	1,430
Regulator Stations	5,554	6,449	6,449	895	895
Cathodic Protection Capital	8,048	4,377	4,377	(3,671)	(3,671)
Pipeline Relocations - Freeway	10,301	10,314	10,314	13	13
Pipeline Relocations - Franchise	18,472	18,872	18,872	400	400
Other Distribution Capital Projects & Meter Guards	3,867	2,622	2,622	(1,245)	(1,245)
Measurement & Regulation Devices**	37,231	29,785	29,785	(7,446)	(7,446)
Capital Tools	8,169	2,322	2,322	(5,847)	(5,847)
Field Capital Support	53,734	49,097	49,097	(4,637)	(4,637)
Total 2014 Capital	**274,426**	**247,368**	**247,368**	**(27,058)**	**(27,058)**

* TURN only provided testimony on the Main Replacements capital category. For all other capital categories, they stated that they generally supported ORA's conclusions (TURN-Sugar, page 28, Part 2, Section V).

** ORA has a typo in the subtotal they show for Measurement and Regulation Devices for 2014. While they clearly state that they recommend adopting the 2014 recorded expenditures, a total of $29.785 million (Exhibit ORA-10, page 59, lines 11 - 14); ORA instead used $28.977 million in two of their summary tables (Table 10-2 on page 3 and Table 10-31 on page 58). The total shown in the table above reflects the correct 2014 recorded expenditures. For this reason, the subtotal for Measurement and Regulation Devices above is $192 less than ORA's summary tables.

Gas Distribution Capital Estimates
(Thousands of Constant 2013 Dollars)

	Position of Party			Difference Between Party and SCG	
	SCG	ORA	TURN*	ORA	TURN
2015 Capital					
New Business	28,636	24,886	24,886	(3,750)	(3,750)
Pressure Betterments	23,445	23,445	23,445	-	-
Supply Line Replacements	4,267	3,734	3,734	(533)	(533)
Main Replacements	47,233	37,038	42,510	(10,195)	(4,723)
Service Replacements	15,899	15,899	15,899	-	-
Main & Service Abandonments	3,582	3,582	3,582	-	-
Regulator Stations	5,554	5,554	5,554	-	-
Cathodic Protection Capital	9,169	9,169	9,169	-	-
Pipeline Relocations - Freeway	10,301	10,301	10,301	-	-
Pipeline Relocations - Franchise	20,128	20,128	20,128	-	-
Other Distribution Capital Projects & Meter Guards	3,867	2,622	2,622	(1,245)	(1,245)
Measurement & Regulation Devices**	38,190	28,977	28,977	(9,213)	(9,213)
Capital Tools***	8,129	6,128	6,128	(2,001)	(2,001)
Field Capital Support****	53,448	47,937	47,937	(5,511)	(5,511)
Total 2015 Capital	**271,848**	**239,400**	**244,872**	**(32,448)**	**(26,976)**

* TURN only provided testimony on the Main Replacements capital category. For all other capital categories, they stated that they generally supported ORA's conclusions (TURN-Sugar, page 28, Part 2, Section V).

** ORA has a calculation error in their 2015 forecast for Measurement and Regulation Devices - Meters and Measurement and Regulation Devices - Regulators. Please see the discussions in the Meters and Regulators sections below for details.

*** ORA has a summation error in their 2015 forecast for Capital Tools. The sum of the individual Capital Tool components that ORA forecasted is $6,128,000 (Exhibit ORA-10, page 67, lines 11 - 15); however, they show $6,119,000 in their summary tables (Table 10-2 on page 3 and Table 10-39 on page 66). The total shown in the table above reflects the correct sum of the tools that ORA forecasted, so it is $9,000 more than ORA's summary tables.

**** ORA has a calculation error in their 2015 total for Field Capital Support. Please see the discussion in the Field Capital Support section below for details.

Gas Distribution Capital Estimates
(Thousands of Constant 2013 Dollars)

	Position of Party			Difference Between Party and SCG	
	SCG	ORA	TURN*	ORA	TURN
2016 Capital					
New Business	32,493	32,493	32,493	-	-
Pressure Betterments	16,009	16,009	16,009	-	-
Supply Line Replacements	4,267	4,267	4,267	-	-
Main Replacements	47,233	47,233	42,510	-	(4,723)
Service Replacements	15,109	15,109	15,109	-	-
Main & Service Abandonments	3,582	3,582	3,582	-	-
Regulator Stations	5,554	5,554	5,554	-	-
Cathodic Protection Capital	9,169	9,169	9,169	-	-
Pipeline Relocations - Freeway	10,301	10,301	10,301	-	-
Pipeline Relocations - Franchise	21,783	21,783	21,783	-	-
Other Distribution Capital Projects & Meter Guards	3,867	3,867	3,867	-	-
Measurement & Regulation Devices	40,063	40,063	40,063	-	-
Capital Tools	10,964	10,974	10,974	10	10
Field Capital Support	53,222	53,222	53,222	-	-
Total 2016 Capital	**273,616**	**273,626**	**268,903**	**10**	**(4,713)**

* TURN only provided testimony on the Main Replacements capital category. For all other capital categories, they stated that they generally supported ORA's conclusions (TURN-Sugar, page 28, Part 2, Section V).

** ORA has a summation error in their 2016 forecast for Capital Tools. The sum of the individual Capital Tool components that ORA forecasted is $10,975,000 (Exhibit ORA-10, page 68, lines 8 - 12); however, they show $10,964,000 in their summary tables (Table 10-2 on page 3 and Table 10-39 on page 66). The total shown in the table above reflects the correct sum of the tools that ORA forecasted, so it is $10,000 more ORA's summary tables.

Gas Distribution Capital Estimates
(Thousands of Constant 2013 Dollars)

	Position of Party			Difference Between Party and SCG	
	SCG	ORA	TURN*	ORA	TURN
Total 2014 - 2016 Capital					
New Business	85,319	83,252	83,252	(2,067)	(2,067)
Pressure Betterments	67,015	77,669	77,669	10,654	10,654
Supply Line Replacements	12,801	11,735	11,735	(1,066)	(1,066)
Main Replacements	141,699	112,768	113,517	(28,931)	(28,182)
Service Replacements	53,225	53,207	53,207	(18)	(18)
Main & Service Abandonments	10,746	12,176	12,176	1,430	1,430
Regulator Stations	16,662	17,557	17,557	895	895
Cathodic Protection Capital	26,386	22,715	22,715	(3,671)	(3,671)
Pipeline Relocations - Freeway	30,903	30,916	30,916	13	13
Pipeline Relocations - Franchise	60,383	60,783	60,783	400	400
Other Distribution Capital Projects & Meter Guards	11,601	9,111	9,111	(2,490)	(2,490)
Measurement & Regulation Devices**	115,484	98,825	98,825	(16,659)	(16,659)
Capital Tools***	27,262	19,424	19,424	(7,838)	(7,838)
Field Capital Support****	160,404	150,256	150,256	(10,148)	(10,148)
Total 2014 - 2016 Capital	**819,890**	**760,394**	**761,143**	**(59,496)**	**(58,747)**

* TURN only provided testimony on the Main Replacements capital category. For all other capital categories, they stated that they generally supported ORA's conclusions (TURN-Sugar, page 28, Part 2, Section V).

** ORA has a typo in the subtotal they show for Measurement and Regulation Devices for 2014. While they clearly state that they recommend adopting the 2014 recorded expenditures, a total of $29.785 million (Exhibit ORA-10, page 59, lines 11 - 14); ORA instead used $28.977 million in two of their summary tables (Table 10-2 on page 3 and Table 10-31 on page 58). The total shown in the table above reflects the correct 2014 recorded expenditures. For this reason, the subtotal for Measurement and Regulation Devices above is $192 less than ORA's summary tables.
In addition, ORA has a calculation error in their 2015 forecast for Measurement and Regulation Devices - Meters and Measurement and Regulation Devices - Regulators. Please see the discussions in the Meters and Regulators sections below for details.

*** ORA has a summation error in their 2015 forecast for Capital Tools. The sum of the individual Capital Tool components that ORA forecasted is $6,128,000 (Exhibit ORA-10, page 67, lines 11 - 15); however, they show $6,119,000 in their summary tables (Table 10-2 on page 3 and Table 10-39 on page 66). The total shown in the table above reflects the correct sum of the tools that ORA forecasted, so 2015 is $9,000 more than ORA's summary tables.
In addition, ORA has a summation error in their 2016 forecast for Capital Tools. The sum of the individual Capital Tool components that ORA forecasted is $10,975,000 (Exhibit ORA-10, page 68, lines 8 - 12); however, they show $10,964,000 in their summary tables (Table 10-2 on page 3 and Table 10-39 on page 66). The total shown in the table above reflects the correct sum of the tools that ORA forecasted, so 2016 is $10,000 more ORA's summary tables.

**** ORA has a calculation error in their 2015 total for Field Capital Support. Please see the discussion in the Field Capital Support section below for details.

A. New Business

Gas Distribution Capital Estimates
(Thousands of Constant 2013 Dollars)

	Position of Party			Difference Between Party and SCG	
	SCG	ORA	TURN*	ORA	TURN
New Business					
2014 Capital					
New Business Construction	29,713	30,653	30,653	940	940
New Business Trench Reimbursements	887	557	557	(330)	(330)
New Business Forfeitures	(6,410)	(5,337)	(5,337)	1,073	1,073
Subtotal	**24,190**	**25,873**	**25,873**	**1,683**	**1,683**
2015 Capital					
New Business Construction	34,159	30,409	30,409	(3,750)	(3,750)
New Business Trench Reimbursements	887	887	887	-	-
New Business Forfeitures	(6,410)	(6,410)	(6,410)	-	-
Subtotal	**28,636**	**24,886**	**24,886**	**(3,750)**	**(3,750)**
2016 Capital					
New Business Construction	38,016	38,016	38,016	-	-
New Business Trench Reimbursements	887	887	887	-	-
New Business Forfeitures	(6,410)	(6,410)	(6,410)	-	-
Subtotal	**32,493**	**32,493**	**32,493**	-	-
Total 2014 - 2016 Capital					
New Business Construction	101,888	99,078	99,078	(2,810)	(2,810)
New Business Trench Reimbursements	2,661	2,331	2,331	(330)	(330)
New Business Forfeitures	(19,230)	(18,157)	(18,157)	1,073	1,073
2014 - 2016 Total	**85,319**	**83,252**	**83,252**	**(2,067)**	**(2,067)**

* TURN only provided testimony on the Main Replacements capital category. For all other capital categories, they stated that they generally supported ORA's conclusions (TURN-Sugar, page 28, Part 2, Section V).

This work category provides for changes and additions to the existing gas distribution system to connect new residential, commercial, and industrial customers.

1. New Business Construction[124]

These forecasted capital expenditures support SoCalGas' goals of providing a safe and reliable gas distribution system and in response to its obligation to serve the growing customer base, thus mitigating the risk of reduced service reliability. This includes installations of gas mains and services, meter set assemblies, and the associated regulator stations necessary to provide service to the customer.

The base forecast for New Business Construction expenditures was developed using the projected new meter sets added to the gas distribution system multiplied by the cost per meter set. The cost per meter set is reflective of the mix of work that is anticipated to construct new main extensions and associated service laterals. SoCalGas chose the latest three-year (2011 through 2013) recorded history to forecast the cost per meter set as it reflects the start of a positive growth rate that provides a more accurate representation of the upward trending of new meter set installations, which is expected to continue in the forecast years.

The 2014 and 2016 capital forecasts are not in dispute. However, SoCalGas disagrees with ORA's 2015 capital forecast for New Business Construction. ORA agrees with SoCalGas' forecast methodology and cost per meter set; however, ORA's forecast is based on ORA's own new meter set forecast. "ORA's forecast is based on fewer meters to be added to SoCalGas' system: 35,910 meters instead of 40,339 meters SoCalGas estimated."[125]

ORA developed a new meter set forecast for 2016 as well as 2015, and its new meter set forecast for 2016 was actually higher than SoCalGas' forecast. If ORA had used its own new meter set forecast for both 2015 and 2016, its 2016 forecast for New Business Construction would have been $1.6 million higher than SoCalGas' forecast, making ORA's total reduction for the three forecast years $1.2 million instead of $2.8 million.

SoCalGas witness, Rose-Marie Payan rebuts ORA's meter set forecast (as found in Ex. ORA-03 – ORA Report on Customer, Sales, Cost Escalation) in her rebuttal testimony (Ex.

[124] UCAN states that while it did not develop alternative gas customer forecasts, both of these forecasts are based on outdated housing start data from IHS, and that the analyses should be re-done using more recent data. Testimony of Briana Kobor, Laura Norin, and Mark Fulmer on Behalf of UCAN (full title truncated), page 15, lines 13 – 17 (May 15, 2015). Since UCAN does not provide an alternative gas forecast for either utility, and both SDG&E and SoCalGas provide rebuttal maintaining that the gas forecasts are reasonable as originally forecasted (see Ex. SDG&E-232 and Ex. SCG-230), both SDG&E and SoCalGas disagree with UCAN's assertion and recommendation.

[125] ORA-10, page 43, line 22 through page 44, line 1.

SCG-230). Ms. Payan maintains that SoCalGas' original new meter set forecast is still appropriate. If the Commission adopts Ms. Payan's new meter set forecast, then the Commission should adopt Gas Distribution's New Business Construction forecast for 2015.

B. Supply Line Replacements

Gas Distribution Capital Estimates
(Thousands of Constant 2013 Dollars)

	Position of Party			Difference Between Party and SCG	
	SCG	ORA	TURN*	ORA	TURN
Supply Line Replacements					
2014 Capital	4,267	3,734	3,734	(533)	(533)
2015 Capital	4,267	3,734	3,734	(533)	(533)
2016 Capital	4,267	4,267	4,267	-	-
2014 - 2016 Total	**12,801**	**11,735**	**11,735**	**(1,066)**	**(1,066)**

* TURN only provided testimony on the Main Replacements capital category. For all other capital categories, they stated that they generally supported ORA's conclusions (TURN-Sugar, page 28, Part 2, Section V).

The Supply Line Replacements work category includes expenditures to replace high-pressure distribution pipelines, referred to as "supply lines" at SoCalGas. When deteriorated conditions are found to exist on a supply line, an engineering evaluation of the pipeline is conducted to determine the requirement for either a replacement or abandonment or localized repair. 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.

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; ordering of materials, some of which have long lead times; and coordination and scheduling of resources. Therefore, SoCalGas estimated the expenditures for the years 2014 through 2016 based on the historical average of recorded expenditures of the years 2009 through 2013.

ORA recommends the 2014 recorded expenditures in lieu of SoCalGas' 2014 forecast,[126] which SoCalGas does not oppose for this area. ORA accepts SoCalGas' 2016 forecast. However, ORA reduces SoCalGas' 2015 forecast for Supply Line Replacements. SoCalGas used a five-year historical average (2009 - 2013), whereas ORA recommends using the 2014 recorded expenditures as the forecast for 2015, stating that its recommendation is "comparable to the last five years of historical spending while reflecting the most current spending in this category, and should capture the typical fluctuations in supply line projects from year to year."[127] ORA's statement is not accurate, as its forecast only reflects only a single year of spending, and does not capture typical fluctuations from year to year. SoCalGas' five-year average is more appropriate to capture five years of historical spending as well as typical fluctuations from year to year. If ORA used a five-year average, including 2014 recorded expenditures, the resulting forecast would be $4.5 million, which is higher than SoCalGas' forecast. ORA's methodology is selective and arbitrary. As discussed in previous sections, ORA does not explain why simply using 2014 recorded expenditures produces a more reasonable or reliable forecast, given ORA's analysis for Locate and Mark, where ORA asserts that data from as many years as possible should be used to produce a more reliable forecast.[128]

SoCalGas experienced some delays in capital work in 2014 due to the implementation of a new electronic construction work planning system. While this major system change will enhance planning and safety in the future, when this new system was deployed to all Distribution planners, it caused a temporary reduction in productivity as the business processes and Gas Standards were updated to synchronize with the technology changes, and planners were trained and learned to use it, and while the new technology was stabilized. This delay had a large impact on work in the main replacement and supply line replacement categories, which are critical to sustained operation reliability and mitigating risks associated with public safety.

SoCalGas' forecasts for 2014, 2015, and 2016 represent SoCalGas' best evaluation of the total funding requirement for the forecast period. While individual years may be higher or lower than the forecasts for that year, the total spent across the three forecast years is representative of the capital investment SoCalGas believes needs to be made in order to maintain system reliability and safety, and is expected to be approximately equal to SoCalGas' total forecast.

[126] ORA-10, page 47, lines 7 – 9.
[127] ORA-10, page 47, lines 7 – 12.
[128] ORA-10, page 8, lines 8 – 10.

Due to the delays caused by implementing the new electronic planning system in 2014, and current efforts to make up for prior delays, SoCalGas expects that the 2015 and 2016 spending will actually exceed the original forecast, as SoCalGas works on the delayed 2014 projects.

For the reasons described above, ORA's 2015 forecast is not appropriate, and the Commission should not reduce SoCalGas' 2015 capital forecast for Supply Line Replacements.

C. Main Replacements

Gas Distribution Capital Estimates
(Thousands of Constant 2013 Dollars)

	Position of Party			Difference Between Party and SCG	
	SCG	ORA	TURN	ORA	TURN
Main Replacements					
2014 Capital	47,233	28,497	28,497	(18,736)	(18,736)
2015 Capital	47,233	37,038	42,510	(10,195)	(4,723)
2016 Capital	47,233	47,233	42,510	-	(4,723)
2014 - 2016 Total	**141,699**	**112,768**	**113,517**	**(28,931)**	**(28,182)**

Expenditures recorded to this work category are for routine capital pipeline replacements critical to sustained operational reliability and mitigate risks associated with public safety. These replacements are often due to leakage that impacts the integrity of the pipe; an anticipated increase in leakage maintenance expenses; the relative cost to install and/or maintain cathodic protection; or the deterioration of pipe material, pipe wrap, or coating. Other criteria taken into consideration are whether the steel pipe meets cathodic protection mandates or the main is found to have active corrosion. In addition, the pipeline may be deemed unsafe or unfit for service due to manufacturing or other defects. Based on information collected during various O&M activities and field observations, the technical staff identifies and prioritizes pipeline segments requiring replacement.

SoCalGas forecasts continuing main replacements at the five-year (2009 - 2013) historical average to mitigate potential risks associated with pipeline integrity, system reliability, and public safety. This approach also allows SoCalGas to replace its aging infrastructure over a reasonable timeframe and to capture historical spending under a variety of conditions that reflect fluctuations in labor and non-labor expenditures associated with this work category. Furthermore, the timing of individual projects is based on a number of factors including the need

for review of operating conditions, detailed planning requirements, acquisition of required permits, purchasing of materials and coordination and scheduling of resources. This forecast methodology best represents the cyclical volume of work qualified on an annual basis, depending on the condition of the pipe as observed during maintenance activities, and captures the various challenges encountered during the construction of main replacements.

1. ORA

ORA recommends the 2014 recorded expenditures in lieu of SoCalGas' 2014 forecast, which SoCalGas does not oppose for this area. ORA accepts SoCalGas' 2016 forecast. However, ORA recommends a reduction to the 2015 capital forecast for Main Replacements. SoCalGas used a five-year (2009 – 2013) historical average, whereas ORA uses a three-year (2012 – 2014) average, stating that its recommendation "captures the fluctuations of expenditures in this work category while incorporating and reflecting SoCalGas' most recent spending in Main Replacement."[129] ORA's selective forecast for this area selectively excludes the two years with the highest levels of spending, and therefore, its result does not capture all of the typical fluctuations. If ORA used a five-year (2010 – 2014) average including 2014 data, the result would have been $44.2 million, or $7.1 million above its 2015 forecast. ORA's methodology is selective and arbitrary. As discussed in previous sections, ORA does not explain why using only the most recent three years of recorded expenditures produces a more reasonable or reliable forecast, given ORA's analysis for Locate and Mark, where ORA asserts that data from as many years as possible should be used to produce a more reliable forecast.[130]

Similar to the category of Supply Line Replacements, SoCalGas experienced some delays in capital work in 2014 due to the implementation of a new electronic construction work planning system. While this major system change will enhance planning and safety in the future, when this new system was deployed to all Distribution planners, it caused a temporary reduction in productivity as the business processes and Gas Standards were updated to synchronize with the technology changes, and planners were trained and learned to use it, and while the new technology was stabilized. In addition, the new system introduced new smart forms for construction crews, which temporarily slowed down the productivity of work while crews became familiar with the new processes. These delays had a large impact on work in the main

[129] ORA-10, page 48, lines 18 – 20.
[130] ORA-10, page 8, lines 8 – 10.

replacement and supply line replacement categories, which are critical to sustained operation reliability and mitigating risks associated with public safety.

SoCalGas' forecasts for 2014, 2015, and 2016 represent SoCalGas' best evaluation of the total funding requirement for the forecast period. While individual years may be higher or lower than the forecasts for that year, the total spent across the three forecast years is representative of the capital investment SoCalGas believes needs to be made in order to maintain system reliability and safety, and is expected to be approximately equal to SoCalGas' total forecast. Due to the delays caused by implementing the new electronic planning system in 2014, and current efforts to make up for prior delays, SoCalGas expects that the 2015 and 2016 spending will actually exceed the original forecast, as SoCalGas works on the delayed 2014 projects.

For the reasons described above, ORA's 2015 forecast is not appropriate, and the Commission should not reduce SoCalGas' 2015 capital forecast for Main Replacement.

2. TURN

TURN takes issue with SoCalGas' 2015 and 2016 forecast for Main Replacement, saying that the DREAMS program and the Main Replacement program appear to lack coordination.[131]

> As DREAMS appears to rely ever more heavily on pipe leak rates and history of leaks, it is not clear how the goals of the two programs differ. TURN recommends that the programs be combined or coordinated for efficiency, and recommends reducing the budgets of both by 10%, after DREAMS costs are modified, as discussed below. This results in reducing funding for Main replacement by $4.723M / year and reducing DREAMS funding by $4.793M / yr.[132]

TURN states that "the two programs' responsibilities appear to overlap. They use different systems for determining which pipe to replace, and leaks play a large part in both."[133] TURN also states:

> While SoCalGas is apparently continuing to work on its DREAMS algorithm, and is now using Picarro Surveyor to conduct leak surveys to augment its information, the relative risk scores are heavily weighted towards historical pipe performance (history of pending and repaired leaks). To TURN, this sounds more like the criteria used by the Main Replacement Program than an incremental replacement effort, based on proactively weighing probability of pipe failure and potential impacts to assess risk.[134]

[131] TURN/Sugar, page 29.
[132] TURN/Sugar, page 29.
[133] TURN/Sugar, page 36.
[134] TURN/Sugar, page 35.

It appears that TURN has misunderstood the information that SoCalGas has provided in testimony and data requests. Main Replacement work is performed in response to day-to-day field observations of the pipe conditions. This work is done to address pipe that is currently leaking, or pipe conditions that could become hazardous if not addressed. Unlike DREAMS, Gas Distribution's Main Replacement work does not take leakage history for repaired leaks or leakage trends into account when replacing pipelines. Gas Distribution just addresses existing pipe conditions in its Main Replacement work. This was described in a response to a TURN data request:

a. The category of "Main Replacement" as presented within Exhibit SCG-04-R – Gas Distribution, addresses the routine main replacement activities that the operating regions face on a daily basis. Reaction to specific local situational information drives the need for "routine" main replacement. This situational information is described on page FBA-99 of Exhibit SCG-04-R:

> These replacements are often due to leakage that impacts the integrity of the pipe, an anticipated increase in leakage maintenance expenses, the relative cost to install and/or maintain cathodic protection, or the deterioration of pipe material, pipe wrap, or coating. Other criteria taken into consideration are whether the steel pipe meets cathodic protection mandates, or the main is found to have active corrosion. In addition, the pipeline may be deemed unsafe or unfit for service due to manufacturing or other defects. Based on information collected during various O&M activities and field observations, technical staff identifies and prioritizes pipeline segments requiring replacement.
>
> Some additional examples include the following:

- Replacement of steel pipe with plastic due to a problematic cathodic protection area of ongoing shorts and interference.
- Replacement of pipe found in poor condition during leak repair, where repairs would be difficult due to conditions, and replacement would be more appropriate.
- Acceleration of scheduled pipe replacement ahead of street improvements, while the opportunity arises during a municipal activity, allowing for shared costs and avoiding street moratoriums.

b. Under the DIMP program, a performance based pipe replacement program (DREAMS) has been established utilizing the attributes outlined in the response to TURN-SCG-DR 07, Question 7b. This replacement program is incremental to the routine main replacement activities. It is a systematic evaluation of pipe attributes to prioritize replacement of pipe segments that have not historically

> performed as well as others. The intent of the program is to prioritize these segments and proactively replace them before additional leakage occurs.[135]

TURN also states that the two programs don't have coordination;[136] however, this is not the case. SoCalGas explained to TURN, "Planners working on Gas Distribution Main Replacement work will coordinate with the DREAMS Planning group before initiating new replacement project to avoid overlapping projects."[137] When Gas Distribution identifies a pipeline with existing conditions that need to be addressed, they will contact the DREAMS group before proceeding with the replacement, to avoid any overlap or conflict. If a replacement project for the pipeline segment has already been initiated as a DREAMS project, then it will continue to be planned by the DREAMS planners, and be charged to DREAMS accounts.

In addition, TURN states that SoCalGas presents no explanation as to why the DREAMS costs are so much higher on a unit basis.[138] Due to the differences in the type of work, there will be some differences in costs. For example, as described in a data request response, Gas Distribution Main Replacement work includes the "Acceleration of scheduled pipe replacement ahead of street improvements, while the opportunity arises during a municipal activity, allowing for shared costs and avoiding street moratoriums."[139] Due to sharing some of the costs with municipalities and avoiding street moratoriums, the cost for main replacement work ahead of street improvements would typically be less than other types of main replacement work. This is one reason that Gas Distribution's Main Replacement work might have a lower average cost per mile than DREAMS.

It is not reasonable to assume that Gas Distribution would be able to reduce the cost of Pipeline Repair by combining Main Replacement work with DREAMS. As described above, there are separate drivers for these two types of work, one to satisfy an immediate operating condition and one to satisfy a non-state of the art family of pipe condition that needs to be addressed longer term, which makes the average cost per pipeline replacement different. An example of a segment of pipe replaced under Main Replacement would be a leaking pipe. An example of a non-state of the art family of pipe replaced under DREAMS is a non-leaking Aldyl-A pipe segment that meets the DREAMS criteria. Main Replacement work is reactive, and often

[135] Data Request TURN-SCG-DR-17, Questions 2.a. and 2.b.
[136] TURN/Sugar, page 36.
[137] Data Request TURN-SCG-DR-17, Question 2.d.
[138] TURN/Sugar, page 38.
[139] Data Request TURN-SCG-DR-17, Question 2.a.

cannot be anticipated. Due to the reactive nature of this work, the process in identifying Main Replacement work is not related to the algorithms used to prioritize DREAMS work. Gas Distribution needs to be able to address potentially hazardous conditions as they occur.

For the reasons discussed above, TURN's assumptions and recommendations with respect to Main Replacement work are not reasonable, and the Commission should adopt SoCalGas' forecast for 2015 and 2016. Pipeline Integrity witness, Maria Martinez, also addresses TURN's analysis, as she sponsors the forecast for DIMP-DREAMS (Ex. SCG-208).

D. Other Distribution Capital Projects and Meter Guards

Gas Distribution Capital Estimates
(Thousands of Constant 2013 Dollars)

	Position of Party			Difference Between Party and SCG	
	SCG	ORA	TURN*	ORA	TURN
Other Distribution Capital Projects & Meter Guards					
2014 Capital					
Other Distribution Capital Projects	3,042	2,235	2,235	(807)	(807)
Meter Guards	825	387	387	(438)	(438)
Subtotal	**3,867**	**2,622**	**2,622**	**(1,245)**	**(1,245)**
2015 Capital					
Other Distribution Capital Projects	3,042	2,235	2,235	(807)	(807)
Meter Guards	825	387	387	(438)	(438)
Subtotal	**3,867**	**2,622**	**2,622**	**(1,245)**	**(1,245)**
2016 Capital					
Other Distribution Capital Projects	3,042	3,042	3,042	-	-
Meter Guards	825	825	825	-	-
Subtotal	**3,867**	**3,867**	**3,867**	-	-
Total 2014 - 2016 Capital					
Other Distribution Capital Projects	9,126	7,512	7,512	(1,614)	(1,614)
Meter Guards	2,475	1,599	1,599	(876)	(876)
2014 - 2016 Total	**11,601**	**9,111**	**9,111**	**(2,490)**	**(2,490)**

* TURN only provided testimony on the Main Replacements capital category. For all other capital categories, they stated that they generally supported ORA's conclusions (TURN-Sugar, page 28, Part 2, Section V).

The Other Distribution Capital Projects and Meter Guards work category covers the expenditures for capital adjustments to SoCalGas' facilities not specifically included in the other categories of work and also includes meter guard installations. 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. Meter Guards are routinely installed to protect the meter set assemblies (MSAs) at existing customer locations from vehicular traffic, in accordance with General Order 112-E and with 49 CFR 192.353(a). The meter guards are installed at targeted sites where the MSA location and/or design warrant consideration of traffic patterns and exposure to other potential sources of impact damage.

To factor in periods of high levels of work, as well as years with lower volumes of work, SoCalGas chose a five-year average spending for the period 2009 through 2013 to forecast expenditures for these categories. This approach allows SoCalGas to capture historical spending under a variety of conditions that reflect the historical fluctuations in labor and non-labor expenditures associated with this workgroup.

ORA recommends the 2014 recorded expenditures in lieu of SoCalGas' 2014 forecast, which SoCalGas does not oppose for this area. ORA accepts SoCalGas' 2016 forecast. However, ORA proposes a reduction to the 2015 capital forecast for the work category Other Distribution Capital Projects and Meter Guards. SoCalGas used a five-year (2009 – 2013) historical average, whereas ORA recommends using the 2014 recorded expenditures as the forecast for 2015, stating that its recommendation "captures the most recent expenditures incurred for projects and reflects the current level of construction activity."[140] ORA's methodology is selective and arbitrary. As discussed in previous sections, ORA does not explain why simply using 2014 recorded expenditures produces a more reasonable or reliable forecast, given ORA's analysis for Locate and Mark, where ORA asserts that data from as many years as possible should be used to produce a more reliable forecast.[141] The same argument should apply here, since spending fluctuates from year-to-year, and the single year of spending is not reflective of ongoing requirements. If ORA had used a five-year average including 2014, in order to include recent spending, its forecast would have been $3.6 million, or $937,000 more than its forecast based on a single year of spending.

Other Distribution Capital Projects and Meter Guards is another capital category that experienced some delays in capital work in 2014 due to the implementation of a new electronic construction work planning system. While this major system change will enhance planning and

[140] ORA-10, page 57, line 19 through page 58, line 2.
[141] ORA-10, page 8, lines 8 – 10.

safety in the future, when this new system was deployed to all Distribution planners, it caused a temporary reduction in productivity as the planners business processes and Gas Standards were updated to synchronize with the technology changes, and were trained and learned to use it, and while the new technology was stabilized.

SoCalGas' forecasts for 2014, 2015, and 2016 represent SoCalGas' best evaluation of the total funding requirement for the forecast period. While individual years may be higher or lower than the forecasts for that year, the total spent across the three forecast years is representative of the capital investment SoCalGas believes needs to be made in order to maintain system reliability and safety, and is expected to be approximately equal to SoCalGas' total forecast. Due to the delays caused by implementing the new electronic planning system in 2014, and current efforts to make up for prior delays, SoCalGas expects that the 2015 and 2016 spending will actually exceed the original forecast, as SoCalGas works on the delayed 2014 projects.

For the reasons described above, ORA's 2015 forecast is not appropriate, and the Commission should not reduce SoCalGas' 2015 capital forecast for Other Distribution Capital Projects and Meter Guards.

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E. Measurement and Regulation Devices

Gas Distribution Capital Estimates
(Thousands of Constant 2013 Dollars)

	Position of Party			Difference Between Party and SCG	
	SCG	ORA	TURN*	ORA	TURN
Measurement & Regulation Devices					
2014 Capital					
Meters	26,399	21,124	21,124	(5,275)	(5,275)
Regulators	8,537	6,370	6,370	(2,167)	(2,167)
Gas Energy Measurement Systems (GEMS)	1,367	1,062	1,062	(305)	(305)
Electronic Pressure Monitors (EPMs)	928	1,229	1,229	301	301
Subtotal**	**37,231**	**29,785**	**29,785**	**(7,446)**	**(7,446)**
2015 Capital					
Meters***	26,925	19,859	19,859	(7,066)	(7,066)
Regulators***	8,712	6,565	6,565	(2,147)	(2,147)
Gas Energy Measurement Systems (GEMS)	1,443	1,443	1,443	-	-
Electronic Pressure Monitors (EPMs)	1,110	1,110	1,110	-	-
Subtotal	**38,190**	**28,977**	**28,977**	**(9,213)**	**(9,213)**
2016 Capital					
Meters	27,610	27,610	27,610	-	-
Regulators	10,337	10,337	10,337	-	-
Gas Energy Measurement Systems (GEMS)	1,508	1,508	1,508	-	-
Electronic Pressure Monitors (EPMs)	608	608	608	-	-
Subtotal	**40,063**	**40,063**	**40,063**	-	-
Total 2014 - 2016 Capital					
Meters	80,934	68,593	68,593	(12,341)	(12,341)
Regulators	27,586	23,272	23,272	(4,314)	(4,314)
Gas Energy Measurement Systems (GEMS)	4,318	4,013	4,013	(305)	(305)
Electronic Pressure Monitors (EPMs)	2,646	2,947	2,947	301	301
2014 - 2016 Total	**115,484**	**98,825**	**98,825**	**(16,659)**	**(16,659)**

* TURN only provided testimony on the Main Replacements capital category. For all other capital categories, they stated that they generally supported ORA's conclusions (TURN-Sugar, page 28, Part 2, Section V).

** ORA has a typo in the subtotal they show for Measurement and Regulation Devices for 2014. While they clearly state that they recommend adopting the 2014 recorded expenditures, a total of $29.785 million (Exhibit ORA-10, page 59, lines 11 - 14); ORA instead used $28.977 million in two of their summary tables (Table 10-2 on page 3 and Table 10-31 on page 58). The total shown in the table above reflects the correct 2014 recorded expenditures. For this reason, the subtotal for Measurement and Regulation Devices above is $192 less than ORA's summary tables.

*** ORA has a calculation error in their 2015 forecast for Measurement and Regulation Devices - Meters and Measurement and Regulation Devices - Regulators. Please see the discussions in the Meters and Regulators sections below for details.

The Measurement and Regulation Devices work category includes expenditures for the purchase of gas meters, regulators, electronic gas pressure and temperature correction equipment, and electronic pressure monitors.

1. Meters

The Meters work category includes materials, warehouse handling, technical evaluations, and quality assurance for the purchase of small meters, typical of residential and small business applications, and larger meters, typical of non-residential applications. Meters are purchased for new business installation at new customer premises and for meter replacements, or change-outs. Planned meter change-outs (PMCs) are performed on a pre-determined replacement cycle, based on meter capacity, size, and meter class performance (meter family or group). Routine meter change-outs (RMCs) are a result of Company or customer-identified problems due to meter accuracy, age, or operation.

A zero-based forecasting methodology was used to forecast the expenditures of this capital work category. This methodology was based on the projected number of new meter sets and the forecasted replacement meter sets. This unit forecast was multiplied by the weighted average cost per meter type, based on historical meter purchases.

ORA recommends the 2014 recorded expenditures in lieu of SoCalGas' 2014 forecast, which SoCalGas does not oppose for this area. ORA accepts SoCalGas' 2016 forecast. However, ORA proposes to reduce the 2015 capital forecast for the work category Meters, stating that "SoCalGas has not presented adequate support for the level of increase in meter purchase for New Business or for the PMC and RMC programs."[142] ORA provides its own forecast for New Business meters and meter replacements, and then uses SoCalGas' unit costs to calculate its total 2015 forecast. SoCalGas and ORA used the same unit cost, so the unit forecast is the cause of the difference between SoCalGas' and ORA's total 2015 forecast for Meters.

ORA's unit forecast for new business meters is based on its own new meter set forecast. "For 2015, ORA recommends a total of 35,910 meters instead of SoCalGas' proposed 40,339 meters."[143] As discussed in the New Business Construction section above, SoCalGas' rebuttal to ORA's meter set forecast can be found in the rebuttal testimony of Ms. Payan (Ex. SCG-230). If

[142] ORA-10, page 61, lines 18 – 19.
[143] ORA-10, page 63, lines 9 – 10.

the Commission adopts Ms. Payan's new meter set forecast, then the Commission should adopt Gas Distribution's new business portion of the Meter forecast for 2015 ($5.132 million).

ORA's meter replacement forecast is based on the "5-year average number of meters replaced by the PMC and RMC programs combined, plus a 10% spare meters."[144] SoCalGas addresses the unit forecast for size 1 – 3 meters and size 4 and larger meters separately, as they are sponsored by different witnesses. SoCalGas' AMI witness Rene Garcia rebuts ORA's meter replacement unit forecast for size 1 – 3 meters (Ex. SCG-239). Mr. Garcia maintains that SoCalGas' original meter replacement unit forecast for size 1 – 3 meters is appropriate. If the Commission adopts Mr. Garcia's unit forecast for the size 1 – 3 meter replacements, then the Commission should also adopt Gas Distribution's Meter forecast for size 1 – 3 meters for 2015 ($14.631 million).

For size 4 and larger meters, ORA's calculations only include a portion of the total historical number of meters replaced. ORA used only the planned meter replacements.[145] ORA did not include the routine meter replacements in its calculations. As shown in the table below, ORA's meter replacement unit forecast would have more than doubled if ORA had included the full set of meter replacements, and would have actually exceeded SoCalGas' forecast for size 4 and larger meters. For this reason, the Commission should adopt Gas Distribution's Meter forecast for size 4 and larger meters for 2015 ($7.162 million).

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[144] ORA-10, page 64, lines 3 – 5.
[145] Data Request ORA-SCG-DR-012-DAO, Question 5.c

	ORA's Forecast for Size 4+ Meters (ORA's Historical Counts Only Include PMCs)	Size 4+ RMCs & Meter Resets*	ORA's Forecast Methodology Applied to Total Historical Size 4+ Meter Replacements (Both PMCs & RMCs)	SoCalGas' Total Size 4+ Meter Replacement Unit Forecast**
2009	3463	5,766	9,229	
2010	3917	5,316	9,233	
2011	3799	4,521	8,320	
2012	6043	4,048	10,091	
2013	6346	4,902	11,248	
5-Year Average	4,714	4,911	9,624	
10% Spare	471	491	962	
2014 Unit Forecast	5,185	5,402	10,587	10,654
2015 Unit Forecast	5,185	5,402	10,587	10,447
2016 Unit Forecast	5,185	5,402	10,587	10,602
Total Unit Forecast for Meters	**15,555**	**16,205**	**31,760**	**31,703**

* Units provided in Exhibit SCG-04-CWP-R, page 171, Supplemental Workpaper SCG-FBA-CAP-SUP-009, Column [E].

** Units provided in Exhibit SCG-04-CWP-R, page 171, Supplemental Workpaper SCG-FBA-CAP-SUP-009, Columns [M] and [N].

2. Regulators

The Regulators capital work category includes the purchase of new installation and replacement regulator materials and technical evaluations.

The methodology used to calculate the required funding for regulator purchases was based on a weighted average of the unit costs multiplied by the new business installation and replacement requirements. To determine the number of regulators needed, SoCalGas used as a basis the historical five-year (2009 - 2013) ratio between purchased meters to purchased regulators. Multiplying the regulator-to-meter ratio with the projected number of forecasted meter purchases yielded the projected number of regulator purchases for each of the forecast years. In addition to this routine work, SoCalGas plans to replace approximately 10,030 regulators in curb meter sets in 2016, as part of a proactive replacement effort. This effort will replace an incremental number of regulators that are either susceptible to corrosion or have exceeded their life expectancies.

ORA recommends the 2014 recorded expenditures in lieu of SoCalGas' 2014 forecast, which SoCalGas does not oppose for this area. ORA accepts SoCalGas' 2016 forecast. However, ORA proposes to reduce the 2015 capital forecast for the work category Regulators. ORA agrees with SoCalGas' regulator unit forecast methodology, stating "ORA does not dispute

the regulator factor used to derive the number of regulators in the test year period."[146] In addition, ORA "applied the SoCalGas unit cost per meter size to determine the overall cost of the 2015 regulators."[147] The only difference between ORA's and SoCalGas' 2015 forecast for Regulators is the number of meters used in the unit calculation, where ORA neglected to factor in the routine meter replacements in a portion of its calculation.

As discussed in the Meters section above, the Commission should adopt SoCalGas' forecast for the number of meters to be purchased in 2015. Therefore, the Commission should also adopt SoCalGas' 2015 forecast for Regulators, as the forecast is derived from the Meter unit forecast.

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[146] ORA-10, page 65, lines 10 – 11.
[147] ORA-10, page 65, lines 13 – 14.

F. Capital Tools

Gas Distribution Capital Estimates
(Thousands of Constant 2013 Dollars)

	Position of Party			Difference Between Party and SCG	
	SCG	ORA	TURN*	ORA	TURN
Capital Tools					
2014 Capital					
Routine Capital Tools	2,710	741	741	(1,969)	(1,969)
Combustible Gas Indicator Equipment Replacement Effort	3,133	-	-	(3,133)	(3,133)
Mobile Data Terminal Replacement	2,326	1,581	1,581	(745)	(745)
Subtotal	**8,169**	**2,322**	**2,322**	**(5,847)**	**(5,847)**
2015 Capital					
Routine Capital Tools	3,115	2,322	2,322	(793)	(793)
Field Training Facility Improvement for Situation City	271	271	271	-	-
Multi-Gas Detector Replacement Effort	2,417	1,209	1,209	(1,208)	(1,208)
Mobile Data Terminal Replacement	2,326	2,326	2,326	-	-
Subtotal**	**8,129**	**6,128**	**6,128**	**(2,001)**	**(2,001)**
2016 Capital					
Routine Capital Tools	3,519	2,322	2,322	(1,197)	(1,197)
Multi-Gas Detector Replacement Effort		1,207	1,207	1,207	1,207
Leak Detection Equipment Replacement Effort	4,429	4,429	4,429	-	-
GIS-Based Leak Survey Tracker	1,271	1,271	1,271	-	-
Mobile Data Terminal Replacement	1,745	1,745	1,745	-	-
Subtotal***	**10,964**	**10,974**	**10,974**	**10**	**10**
Total 2014 - 2016 Capital					
Routine Capital Tools	9,344	5,385	5,385	(3,959)	(3,959)
Combustible Gas Indicator Equipment Replacement Effort	3,133	-	-	(3,133)	(3,133)
Field Training Facility Improvement for Situation City	271	271	271	-	-
Multi-Gas Detector Replacement Effort	2,417	2,416	2,416	(1)	(1)
Leak Detection Equipment Replacement Effort	4,429	4,429	4,429	-	-
GIS-Based Leak Survey Tracker	1,271	1,271	1,271	-	-
Mobile Data Terminal Replacement	6,397	5,652	5,652	(745)	(745)
2014 - 2016 Total	**27,262**	**19,424**	**19,424**	**(7,838)**	**(7,838)**

* TURN only provided testimony on the Main Replacements capital category. For all other capital categories, they stated that they generally supported ORA's conclusions (TURN-Sugar, page 28, Part 2, Section V).

** ORA has a summation error in their 2015 forecast for Capital Tools. The sum of the individual Capital Tool components that ORA forecasted is $6,128,000 (Exhibit ORA-10, page 67, lines 11 - 15); however, they show $6,119,000 in their summary tables (Table 10-2 on page 3 and Table 10-39 on page 66). The total shown in the table above reflects the correct sum of the tools that ORA forecasted, so it is $9,000 more than ORA's summary tables.

*** ORA has a summation error in their 2016 forecast for Capital Tools. The sum of the individual Capital Tool components that ORA forecasted is $10,975,000 (Exhibit ORA-10, page 68, lines 8 - 12); however, they show $10,964,000 in their summary tables (Table 10-2 on page 3 and Table 10-39 on page 66). The total shown in the table above reflects the correct sum of the tools that ORA forecasted, so it is $10,000 more ORA's summary tables.

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, maintenance and repair of gas pipeline systems. The main driver of this category is the need to replace existing tools that are damaged, broken, outdated technologically, or have outlived their useful lives. 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.

Routine tool purchase requirements are identified during the year, as part of the regular course of maintenance and construction activities. SoCalGas expects routine tool purchases to continue on an increasing trend as existing tools and equipment reach their useful life expectancies and the level of construction and maintenance activities increases, adding to the number of new employees that must be equipped with tools and equipment. A five-year (2009 through 2013) linear trend forecasting methodology was used to forecast the expenditures of routine tool purchases. Added to this base are the following incremental non-routine tools that are necessary to adequately fund Capital Tools in 2014, 2015, and 2016:

- Multi-Gas Detector Replacement Effort
- Combustible Gas Indicator Equipment Replacement Effort
- Leak Detection Equipment Replacement Effort
- GIS-Based Leak Survey Tracker
- Field Training Facility Improvement for Situation City
- Mobile Data Terminal Replacements

1. Routine Capital Tools

ORA recommends the 2014 recorded expenditures in lieu of SoCalGas' 2014 forecast, which SoCalGas does not oppose for this area. ORA takes issue with the 2015 and 2016 capital forecast for the work category Routine Capital Tools. Instead of a five-year historical linear trend of the non-labor for Routine Tools, ORA recommends using the 2014 recorded expenditures for Capital Tools as the forecast for 2015[148] and 2016.[149] stating that based on the 2014 recorded amount, "the expected linear growth did not materialize. ORA's recommendation

[148] ORA-10, page 67, lines 9 – 12.
[149] ORA-10, page 68, lines 9 – 12.

of using the 2014 recorded amount as the base incorporates the most recent spending for this work category and is a reasonable base from which to add incremental increases."[150]

The 2014 routine capital tool purchases were affected by the 2014 capital work delays related to the implementation of a new electronic construction work planning system. While this major system change will enhance planning and safety in the future, when this new system was deployed to all Distribution planners, it caused a temporary reduction in productivity as the business processes and Gas Standards were updated to synchronize with the technology changes, and planners were trained and learned to use it, and while the new technology was stabilized. In addition, the new system introduced new smart forms for construction crews, which temporarily slowed down the productivity of work while crews became familiar with the new processes. Capital tool purchases are tied to construction work, so when some of the 2014 construction work was delayed, the routine capital tool purchases were lower than originally forecasted. By basing its 2015 and 2016 forecast for Routine Capital Tools on a single year, ORA is recommending a reduction in this safety-related category. Due to safety risks, such tools must be replaced before breaking. Otherwise, they could potentially cause injury to an employee[151] and to the public.

SoCalGas' forecasts for 2014, 2015, and 2016 represent SoCalGas' best evaluation of the total funding requirement for the forecast period. While individual years may be higher or lower than the forecasts for that year, the total spent across the three forecast years is representative of the capital investment SoCalGas believes needs to be made in order to maintain system reliability and safety, and is expected to be approximately equal to SoCalGas' total forecast. Due to the delays caused by implementing the new electronic planning system in 2014, and current efforts to make up for prior delays, SoCalGas expects that the 2015 and 2016 spending will actually exceed the original forecast, as SoCalGas works on the delayed 2014 projects and needs to replace more capital tools. Gas Distribution believes the forecast is the appropriate level to provide the appropriate capital tools for the work that is anticipated.

ORA's treatment of this area is inconsistent with its forecasts for all other Gas Distribution capital categories, as this base forecast is the only area where ORA recommends reducing the 2016 capital. SoCalGas objects to ORA's selective treatment of the 2016 base

[150] ORA-10, page 67, lines 22 – 24.
[151] Ex. SCG-04-R, page FBA-134, lines 18 – 19.

forecast for this area. ORA provides no explanation for why it treated 2016 differently for this one area.

For the reasons described above, ORA's 2015 and 2016 forecasts are not appropriate, and the Commission should not reduce SoCalGas' 2015 and 2016 capital forecast for Routine Capital Tools.

2. Non-Routine Capital Tools

ORA recommends the 2014 recorded expenditures in lieu of SoCalGas' 2014 forecast, which SoCalGas does not oppose for this area. ORA accepts SoCalGas' 2016 forecast. However, ORA takes issue with the 2015 and 2016 capital forecast for the work category Non-Routine Capital Tools. For 2015, ORA accepts SoCalGas' forecast for the field training facility improvement for Situation City and the mobile data terminal replacements; however, it recommends only "50% funding, or $1.209 million, for multi-gas detector and calibration replacements."[152] ORA does not take issue with SoCalGas' replacement or cost proposal; however, ORA recommends spreading the costs across 2015 and 2016 to normalize the rate impact.[153] ORA's recommendation would delay the completion of the multi-gas detector replacements.

SoCalGas disagrees with ORA's recommendation to split the forecasted cost for the multi-gas detector replacement effort between the years 2015 and 2016. SoCalGas is on schedule to complete all of the forecasted purchase, employee training, and implementation efforts in the current year 2015. This includes 1,300 multi-gas detector units and 60 calibration units. There is no reason to delay into two years the safety benefits of having updated equipment in the hands of employees. Since this project is on schedule and ORA does not take issue with SoCalGas' equipment replacement or cost proposal,[154] and it is not efficient to delay deployment of this safety equipment, the full project forecast should be kept in the forecast total for 2015, and not spread across two years.

In addition to the replacement of Multi-Gas Detectors used by Customer Services field employees, SoCalGas is implementing an additional safety tool replacement project for tools that are used by Distribution employees which was originally scheduled for the year 2014.

[152] ORA-10, page 67, lines 12-15.
[153] ORA-10, page 68, lines 3 - 7.
[154] ORA-10, page 68, lines 3 – 4.

SoCalGas' Combustible Gas Indicator Equipment Replacement Effort, was original forecasted to be completed in 2014; however, due to project delays in finding a vendor that would meet all of SoCalGas' safety and operational requirements, no combustible gas indicators or calibration stations were placed into service in 2014.[155] This $3.1 million replacement project is now scheduled to be completed by the end of this year. To meet all of SoCalGas' safety and operating requirements, SoCalGas anticipates that its spending for this tool will actually exceed its original forecast for Non-Routine Capital Tools in 2015. ORA did not discuss this project in its analysis. However, the 2014 level of expenditures does not indicate a reduction to the cost forecast, but a shifting of the timing of expenditures to 2015 for this critical safety equipment. Reducing the 2014, 2015 and 2016 forecast is not the appropriate treatment of this capital work, as it underfunds this critical safety equipment.

For the reasons described above, ORA's 2015 and 2016 forecasts are not appropriate, and the Commission should not reduce SoCalGas' 2015 capital forecast for Non-Routine Capital Tools. Instead, the Commission should adopt SoCalGas' original forecast for the years 2015 and 2016.

G. Field Capital Support

Gas Distribution Capital Estimates
(Thousands of Constant 2013 Dollars)

	Position of Party			Difference Between Party and SCG	
	SCG	ORA	TURN*	ORA	TURN
Field Capital Support					
2014 Capital					
2014 Capital	53,734	49,097	49,097	(4,637)	(4,637)
2015 Capital					
2015 Capital**	53,448	47,937	47,937	(5,511)	(5,511)
2016 Capital					
2016 Capital	**53,222**	**53,222**	**53,222**	-	-
Total 2014 - 2016 Capital					
2014 - 2016 Total**	**160,404**	**150,256**	**150,256**	**(10,148)**	**(10,148)**

* TURN only provided testimony on the Main Replacements capital category. For all other capital categories, they stated that they generally supported ORA's conclusions (TURN-Sugar, page 28, Part 2, Section V).
** ORA has a calculation error in their 2015 total for Field Capital Support. Please see the discussion in the Field Capital Support section below for details.

[155] Data Request ORA-SCG-DR-028-DAO, Question 1.

This work category provides the labor and non-labor funding for a broad range of services to support Gas Distribution field capital asset construction. Traditional work categories in this budget include project planning, local engineering, clerical support and field 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.

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. Due to this relationship, the forecast expenditures for the budget category of Field Capital Support is based on the level of historical costs as a percentage of construction costs incurred. SoCalGas applied a labor ratio of 30.4% to the overall projected capital construction cost. This labor ratio was determined using the weighted average ratio of the four lowest percentage years (2010 through 2013).

ORA recommends the 2014 recorded expenditures in lieu of SoCalGas' 2014 forecast, which SoCalGas does not oppose for this area. ORA accepts SoCalGas' 2016 forecast. However, SoCalGas disagrees with ORA's analysis of the 2015 forecast. ORA states that its 2015 forecast "is based on using the 30% SoCalGas' labor to total projected capital construction cost for 2015, and applying this ratio to ORA's 2015 capital construction forecast of $159.790 million";[156] however, ORA's forecast is erroneous in the following ways:

- ORA's calculation for the total projected capital construction for 2015 has an error in the New Business line item. The number used in its calculation is not consistent with ORA's own forecast for New Business Construction. As shown in the corrections in the table below, the erroneous New Business Construction total that ORA used in its total projected capital construction calculation, $28.318 million, has been replaced with ORA's 2015 forecast for New Business Construction, $30.409 million.
- ORA states that its forecast uses SoCalGas' percentage of 30%[157] to calculate the labor, "based on using the five-year (2009-2013) average historical capital spending, which is 32%, and adjusting 3% downward for efficiency gains."[158] However, as

[156] ORA-10, page 69, lines 10 – 12.
[157] ORA-10, page 69, lines 10 – 11.
[158] ORA-10, page 69, lines 1 – 2.

shown in SoCalGas' capital workpapers,[159] the percentage SoCalGas used was 30.4%, and was based on the four year (2010 – 2013) average ratio of Field Capital Support labor to the capital construction total:

Historical Calculations (2013$)

	[C] ([A]*1000) Historical 4-Year Total Applicable Capital	[D] ([B]*1000) Historical Capital Field Support Labor	[E] Historical Field Capital Support FTEs
2010	$ 123,581,915	$ 41,436,188	452.2
2011	$ 137,758,409	$ 40,274,879	470.7
2012	$ 131,535,895	$ 39,130,557	480.5
2013	$ 148,432,917	$ 43,886,805	517.4
4-Year 2010-2013 Total	$ 541,309,136	$ 164,728,429	1,920.8

4-Year 2010-2013 Average Ratio of Labor to Capital Construction Total	30.4%	[F] [D/C]
4-Year 2010-2013 Average Labor Dollars per FTE	$ 85,760	[G] [D/E]

This ratio has been corrected in the figure below.

[159] Ex. SCG-04-CWP-R, page 248, Supplemental Workpaper SCG-FBA-CAP-SUP-014, table location [F].

Assumptions:

** Construction costs include only the work categories requiring field support.*

*** South Bay Cities Pressure Betterment Project was excluded from SoCalGas' total.*

Amounts include vacation and sick.

Capital Construction Costs and Historical Field Capital Support Labor Costs
(Thousands of 2013$)

	SoCalGas' 2015 Forecast	ORA's 2015 Forecast	Corrections to ORA's 2015 Forecast
New Business	34,159	28,318	**30,409**
Pressure Betterment**	21,475	23,445	23,445
Supply Line Replacement	4,267	3,734	3,734
Main Replacement	47,233	37,038	37,038
Service Replacement	15,899	15,899	15,899
Main/Service Abandon	3,582	3,582	3,582
Regulator Stations	5,554	5,554	5,554
Cathodic Protection	9,169	9,169	9,169
Freeway Relocation	10,301	10,301	10,301
Franchise Relocation	20,128	20,128	20,128
Other Distribution Capital Projects	3,042	2,235	2,235
Meter Guards	825	387	387
Total Construction Costs*	175,634	159,790	161,881
Historical Field Support Ratio	30.4%	30%	**30.4%**
Resulting Field Capital Support Labor	53,448	47,937	49,212

The corrections discussed above would increase ORA's 2015 forecast for Field Capital Support by $1.275 million to $49.212 million.

SoCalGas does not take issue with ORA's forecast methodology (after the corrections discussed above); however, this calculation should be applied to the appropriate total construction costs. As Gas Distribution has discussed in the capital construction categories above, the Commission should adopt SoCalGas' forecasts for 2015 and 2016 as reasonable, leaving SoCalGas' 2015 forecast for Field Capital support unchanged.

IV. REBUTTAL TO OTHER ISSUES RAISED BY PARTIES

A. TURN/Marcus

TURN states that the Commission has not permitted utilities to charge dues to chambers of commerce dues, sporting event tickets, or clothing and other gear containing the utilities' name and logo to ratepayers in the past.[160] Thus, TURN states that the following expenses[161] should not be paid for by ratepayers:

- Dues and Contributions to Political Organizations
- Tickets to Sporting and Cultural Events
- Clothing and Other Gear (Various Accounts)

To the extent groups, such as Regional Public Affairs (RPA), incur legitimate business costs which are not specifically and completely disallowed by the Commission as a matter of policy, SoCalGas will seek rate recovery for those costs. For instance, RPA is involved with chambers because they serve as a central point of contact for SoCalGas to provide critical information to business customers about planned or proposed rate changes, energy efficiency and conservation, as well as pending operational and regulatory matters that could impact these customers.[162] While SoCalGas' largest industrial customers receive critical information from an assigned SoCalGas account representative, small- and medium-size businesses, which comprise the vast majority of business customers in the service territory, do not have account representatives. Chambers fill this gap by providing a forum for SoCalGas to communicate with these customers. When business customers are well-informed about SoCalGas' services, programs, and activities, they can realize the full benefit of utility services. The community as a whole also benefits, because more efficient and effective businesses help the region's economy thrive.

Items containing the utilities' name and logo are used at safety fairs and other civic or community events. They are an enticement to draw customers in to information booths so that RPA 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 RPA 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

[160] TURN/Marcus, page 44, Section V.
[161] TURN/Marcus, pages 44 – 48.
[162] Ex. SCG-04-R, page FBA-73, lines 5 – 10.

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 if they are incurred to serve a valid utility business purpose, such as customer education/outreach, business development, or employee recognition.

B. UWUA

UWUA states that it fully supports SoCalGas' GRC request, and provides testimonial accounts that align with those made by Gas Distribution in justifying cost forecasts for incremental FTEs. However, SoCalGas takes issue with certain assertions made by UWUA concerning the safety and reliability of the gas system. My testimony focuses on a sampling of assertions related to Gas Distribution operations.

UWUA states:

> SoCalGas has been operating with a diminished workforce for a number of years. This has particularly grave implications for operating and maintaining the distribution system, which has a significant amount of aging legacy pipe and equipment that poses safety risks to the public and employees. Re-organization of the workforce and overcoming the problems related to short staffing is outside the scope of the Commission's traditional purview…[163]

While Gas Distribution's test year requests address the company's workforce needs, the suggestion that SoCalGas maintains a level of workforce that would create "grave implications," or has infrastructure that poses safety risks to the public and employees, is objectionable. Gas Distribution strives to have in place an optimal workforce to efficiently and effectively maintain our system and address issues that impact safe and reliable operations. And the company operates its system safely and reliably, while effectively managing its system risks. There is certainly work to be done to maintain and enhance the safety and reliability of the gas distribution system; however, SoCalGas does not share UWUA's opinion quoted above, which implies a lack of a safety culture. The opposite is true, as the company's management and workforce exhibit a strong safety culture.

UWUA states:

> SoCalGas has steadily increased the delay time between discovery and repair over the past three years, and has extended the repair time from one day for a Code 1

[163] UWUA-8, page 2, lines 25 – 30.

> emergency leak to a maximum of ten business days. This delayed repair approach greatly increases the risk…[164]

SoCalGas disagrees with UWUA's belief that its leak repair policy, which calls for the immediate repair of hazardous (Code 1) leaks and a different repair schedule for non-hazardous leaks, "greatly increases risks" to our customers or the public. For non-hazardous leaks, SoCalGas' policy and procedures meet the established requirements for leaks, while also meeting "Call Before You Dig" scheduled work and other emergency response needs. Treating all riser leaks as Code 1, as UWUA recommends, would achieve the opposite of risk reduction by failing to address hazardous leaks first, and diverting our workforce from those leaks that require immediate repair. UWUA's testimonies do not demonstrate any consideration to the costs customers would have to bear for its desired level of workforce. 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 meeting all DOT requirements. An efficient, productive, and optimal workforce achieves the safety and reliability needs of the system without being an undue cost burden upon ratepayers.

UWUA states:

> SoCalGas is plagued with chronic understaffing which may result in cutting corners, expanding backlogs, deteriorating facilities and services, and failing to make timely repairs and replacements to the legacy pipe.[165]

SoCalGas disagrees with UWUA's assessment that it is plagued with chronic understaffing. Again, UWUA's motivations are clear. While incremental increases in the workforce are part of Gas Distribution's GRC request, SoCalGas cannot reasonably support the levels of hiring that UWUA desires.

UWUA states:

1. Significant backlogs and work scheduling restraints resulting in long breaks in restoring down or out-of-tolerance cathodic protection areas (repair packages).
2. Loss of departmental expertise & experience.
3. Personnel skill development is slow.
4. "Budgetary" constraints on maintenance and compliance projects that lead to significant backlogs, delay of repair orders resulting in permits expiring, and extended periods of out-of tolerance conditions for protected pipe.

[164] UWUA-8, page 5, lines 17 - 22.
[165] UWUA-2, page 4, lines 2 – 5.

> These problems put SoCalGas in a potential position of chronic non-compliance with its own procedures and with state and federal regulations for system protection which require "… prompt remedial action to correct any deficiencies." It means that a major program for protection against corrosion and leaks is constantly at risk of being compromised.[166]

Gas Distribution does not share this opinion. SoCalGas is aggressively addressing the backlog of out of tolerance cathodic protection (CP) areas caused by aging infrastructure. Furthermore, as stated by UWUA's witness David Brown,[167] local management continues to make improvements resulting in the reduction of out of tolerance areas. As stated in my testimony, Gas Distribution forecasts additional resources to move forward with both its maintenance and capital investment strategy to continually mitigate out of tolerance CP areas. SoCalGas disagrees with UWUA's opinion that the "problems put SoCalGas in a position of chronic non-compliance with its own procedures and with state and federal regulations for system protection…."[168] Gas Distribution processes, best practices and procedures meet all state and federal regulations and support ongoing objectives of safety, reliability, and having an effective CP system.

SoCalGas maintains that its GRC forecasts in Gas Distribution are reasonable, balanced and beneficial to our customers.

C. EDF

EDF does not provide an analysis of SoCalGas' cost forecasts and underlying methodologies. However, as to its assertions and overall recommendations regarding leak quantification and leak detection requirements[169] and the costs associated with methane leak quantification, SoCalGas addresses the appropriateness of those recommendations in the rebuttal testimony of Jill Tracy (Ex. SCG-217).

As it relates to Gas Distribution, SoCalGas stated in response to an EDF data request on prioritization of leaks based on quantification:

> While the GRC cost forecast did not include prioritization of the non-hazardous leaks, the current prioritization process is based on the potential impact to public safety of the leak and therefore, hazardous leaks are repaired immediately. The future prioritization will be consistent with federal and state regulations, including the Order Instituting Rulemaking to Adopt Rules and Procedures Governing Commission-

[166] UWUA-6, page 5, line 24 through page 6, line 5.
[167] UWUA-6, page 6, lines 13 - 18.
[168] UWUA-6, page 6, lines 1 – 3.
[169] EDF, page 6, lines 18 – 19.

Regulated Natural Gas Pipelines and Facilities to Reduce Natural Gas Leakage Consistent With Senate Bill 1371 (R.15-01-008, Filed January 15, 2015). SB 1371's rules and procedures have yet to be adopted in R.15.01-008. Because the Rulemaking is still gathering information in Phase 1, SoCalGas cannot speculate as to how SB 1371's requirements will be accounted for in its GRC beyond information already provided in testimony, workpapers, and data request responses until the Rulemaking establishes rules and procedures for reduction of methane emissions in Phase 2.[170]

V. 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 full as presented in my direct testimony and corresponding workpapers. 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.
- Some of ORA's forecasts were based only 2014 spending, which was not a good indicator of future expectations.
- ORA's forecasts include some calculation errors and data omissions.
- ORA recommends normalizing costs in a number of areas where the costs will be ongoing, so normalization is not appropriate.
- TURN selectively normalizes one-time costs, but does not account for the fact that the corresponding ongoing costs are anticipated to increase in forecast years.
- While UWUA agreed with SoCalGas' forecast, SoCalGas does not agree with aspects of UWUA's discussion.

These observations are all discussed in more detail in the specific rebuttal sections.

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

[170] Data Request EDF-SCG-DR-01, Question 3.

methodologies and incremental activities presented in my revised direct testimony. These challenges include:

- Trained and Qualified Workforce – Safety is rooted in all phases of gas distribution training. Maintaining a skilled, qualified, and dedicated workforce is critical to SoCalGas' continued success. It is through the efforts of these employees that SoCalGas is able to continue to deliver reliable service to customers and maintain the integrity of its pipeline infrastructure at reasonable cost. 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, notwithstanding the fact that a significant portion of the pipeline infrastructure and facilities have been in service for more than 50 years. Good 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. New facilities add to the inventory of assets that require operations and maintenance attention, which must be completed in accordance with federal and state regulations, and are critical to maintaining a safe and reliable distribution system for a growing base of customers.
- Customer and Load Demands – As a public utility, SoCalGas is obligated to provide customers within its service territory natural gas service in accordance with tariff rules. As the customer base grows and expands, new demands are placed on existing infrastructure. Field experience indicates that more favorable economic conditions lead to increases in various work requirements. SoCalGas anticipates that as the economy continues to recover,[171] this will impact activities related to customer and load demands.
- State and Municipal Agency Construction Requirements – The construction, operation, and maintenance of SoCalGas' vast pipeline system require interaction and compliance with numerous agencies. These agencies continue to impose new and often more stringent administrative, planning, and field construction operating conditions that can result in

[172] Ten Gas Distribution audits were initially scheduled for 2014, but two of those were cancelled.

increased cost pressures to maintain the gas distribution system. SoCalGas works diligently with these agencies to find solutions that are in the best interest of customers and agencies. Nevertheless, these rules often result in cost increases.

- Integration of Technology – SoCalGas is enhancing and implementing technology-based systems and processes that will change the way personnel plan, monitor, and document construction projects. The forthcoming process changes will require training of employees on the new technology tools and business process changes. Once this technology is implemented, the organization must embrace the change. Support systems must be in place to facilitate the integration of these tools within field and management practices. This will require technical support for impacted employees, updating of field procedures and training materials, and support to implement process changes. Reports and tools will need to be established to gather, consolidate, and summarize newly-available data to monitor the effectiveness of operations and identify future business improvements.

While addressing these challenges, the forecasts outlined in my testimony include SoCalGas' full and complete commitment to safety. SoCalGas' longstanding commitment to safety focuses on three primary areas – public safety, customer safety, and employee safety. This safety focus is embedded in what we do and is the foundation for who we are – from initial employee training; to the installation, operation, and maintenance of our utility infrastructure; and to our commitment to provide safe and reliable service to our customers.

The forecasted funding requested in my revised direct testimony supports the Company's goals of achieving operational excellence while providing safe and reliable delivery of natural gas to customers at reasonable cost, while mitigating risks associated with hazards to public and employee safety, infrastructure integrity, and system reliability.

SoCalGas' TY2016 O&M forecast and 2015 – 2016 capital forecasts are reasonable estimates of future requirements and should be adopted by the Commission.

This concludes my prepared rebuttal testimony.

APPENDIX A – DATA REQUESTS

ORA-SCG-DR-006-DAO, Question 1.d.ii.

ORA-SCG-DR-009-DAO, Question 3

ORA-SCG-DR-012-DAO, Question 5.c.

ORA-SCG-DR-015-DAO, Questions 4, 6.a., 7.g., and 9

ORA-SCG-DR-017-DAO, Questions 4 and 8

ORA-SCG-DR-028-DAO, Question 1

ORA-SCG-DR-073-DAO, Questions 3.a. and 6

ORA-SCG-DR-074-DAO, Question 1.e. – 1.f.

ORA-SCG-DR-087-DAO, Questions 1.c., 2.a., 2.c., 2.d., and 3.a.

TURN-SEU-DR-04, Question 4 (Amended 5/15/2015)

TURN-SEU-DR-04, Questions 9 and 10

TURN-SCG-DR-17, Question 2

EDF-SCG-DR-01, Question 3

ORA DATA REQUEST
ORA-SCG-DR-006-DAO
SOCALGAS 2016 GRC – A.14-11-004
SOCALGAS RESPONSE
DATE RECEIVED: NOVEMBER 6, 2014
DATE RESPONDED: NOVEMBER20, 2014

Exhibit Reference: SCG-04, Section I. E, Page 8

Subject: Gas Distribution O&M Expenses & Capital Expenditures

Please provide the following:

1. On page 8 of the testimony, SoCalGas states, "Three activities currently funded through 2015 as part of a Distribution Integrity Management Program (DIMP) pilot program have proven to be successful and will become part of routine Gas Distribution operations by 2016…These activities are included in the 2014-2015 DIMP forecast in the prepared direct workpapers of Maria Martinez, Exhibit SCG-08-WP."

    a. Please identify the three activities referenced in the statement;
    b. Provide a citation to the testimony and workpapers wherein these three activities and SoCalGas' 2016 funding request are discussed;
    c. Provide a citation to the testimony and/or workpapers wherein SoCalGas presents the justification and calculations for the 2016 forecast.
    d. SoCalGas' witness, Maria Martinez, requests funding for DIMP and TIMP expenses in Exhibit SCG-08. SoCalGas' witness, Gina Orozco/Frank Ayala, states that DIMP activities will become part of routine Gas Distribution operations by 2016.
        i. Please explain the role of witness Maria Martinez's Pipeline Integrity testimony in relation to witness Gina Orozco's Gas Distribution testimony;
        ii. Please provide a detailed explanation of how DIMP activities and costs will be tracked/managed in 2016 and identify the differences between how these costs are tracked now compared to 2016.

SoCalGas Response:

d.ii. These three activities initiated within DIMP and are currently tracked and charged to the DIMP balancing account. Starting in 2016, these activities will become part of routine operations and will no longer be tracked and charged to the DIMP balancing account. Rather, as shown in Frank Ayala's Gas Distribution testimony, these activities will be managed as part of the Gas Distribution Operations Management and Training.

Responses to remaining question(s) omitted for convenience.

ORA DATA REQUEST
ORA-SCG-DR-009-DAO
SOCALGAS 2016 GRC – A.14-11-004
SOCALGAS RESPONSE
DATE RECEIVED: NOVEMBER 18, 2014
DATE RESPONDED: DECEMBER 4, 2014

Exhibit Reference: SCG-4, Category B, Shared Services

Subject: Gas Distribution Operations and Maintenance Expenses, Shared Services

Please provide the following:

3. A breakdown of the 2016 forecast for each of the activities identified on pages FBA-84 through FBA-86.

SoCalGas Response:

By way of clarification, in the testimony on page FBA-84 line 15 we state "To this end, SoCalGas and SDG&E will establish a team of internal and external resources to conduct an assessment and develop a program blueprint to determine the extent to which SoCalGas and SDG&E should implement remote monitoring and control of their gas distribution infrastructure. The program's blueprint will also recommend projects and work processes as well as the priority and timing of the work. Furthermore, the assessment will include an analysis of industry best practices, including field and control room technologies." This effort is to complete the work described that will lead to a go forward plan referred to as the "blueprint" or Monitoring and Control (project) Plan. Supplemental Workpaper SCG-FBA-USS-SUP-006 (page 138 of Exhibit SCG-04-WP) shows the forecast calculations for the following activities:

- Benchmarking
- Remote Monitoring and Control Plan
- Enhancement of Current Business Processes Plan
- Implementation and Ongoing Support Team

A breakdown was not calculated for the Gas Distribution Control Center Plan. It is a part of the analysis that will go into developing the Monitoring and Control Plan.

ORA DATA REQUEST
ORA-SCG-DR-012-DAO
SOCALGAS 2016 GRC – A.14-11-004
SOCALGAS RESPONSE
DATE RECEIVED: NOVEMBER 24, 2014
DATE RESPONDED: DECEMBER 15, 2014

Exhibit Reference: SCG-4, Gas Distribution O&M and Capital

Subject: Meters and AMI

Please provide the following:

5. Referring to page 171 of the workpapers, please provide the following:
    c. An explanation for the significant increase from 91,107 meters SoCalGas replaced in 2013 and the utility's forecast of 180,000 replacement each year from 2014-2016. Please include any and all workpapers and/or calculations used to support SoCalGas' forecasts.
    d. Provide a breakdown of the 180,000 size 1-3 meter replacements planned for each year from 2014-2016 for the (i) RMC and (ii) the PMC.
    e. Did SoCalGas perform any replacement of size 4+ meters as part of its PMC program? If yes, please provide the number of size 4+ meters replaced each year from 2009-2014 YTD as part of the PMC program. If no, please explain why it has not done so in previous years.
    f. Did SoCalGas perform any replacement of size 1-3 meters as part of its PMC program? If yes, please provide the number of size 1-3 meters replaced as part of its PMC program. If no, please explain why it has not done so in previous years.

SoCalGas Response:

Response to Question 5.c.:

<u>Prepared by Gas Distribution (SCG-04)</u>:

Please note that the numbers shown in column [D] of Table 1 on page 171 of SCG-04-WP, labeled "Historical PMCs & Size 1-3 RMCs," correspond to meter purchases, which is not the same as meter installations / replacements. The table below shows the size 4 and larger meters replaced through planned meter change-outs in the years 2009 through 2013. The 2014 year-to-date PMCs is not readily available.

Year	2009	2010	2011	2012	2013
Size 4+ PMCs Completed	3,463	3,917	3,799	6,043	6,346

Responses to remaining question(s) omitted for convenience.

ORA DATA REQUEST
ORA-SCG-DR-015-DAO
SOCALGAS 2016 GRC – A.14-11-004
SOCALGAS RESPONSE
DATE RECEIVED: NOVEMBER 26, 2014
DATE RESPONDED: DECEMBER 19, 2014

Exhibit Reference: SCG-4, Gas Distribution O&M and Capital Expenditures

Subject: AMI, Operator Qualification Program, Training Services, Quality Assurance and Compliance Assurance, and Field Technology Support

Please provide the following:

4. On workpaper page 107, SoCalGas identifies 9 FTEs and $1.080 million under Centralized Training. Provide the number of FTEs assigned to and expenses incurred by the OQ program each year from 2009-2014 YTD, by job category such as those identified on page 107 of the workpapers (i.e. Training Instructors, Technical Specialists, Administrator).

SoCalGas Response:

Please refer to the response to Question 2.e. above for information about the Operator Qualification program historical O&M costs. The historical FTEs are shown in the table provided in response to Question 2.e.i.

Below is a list of the employees assigned to the Operator Qualification department in each year, by job category:

	2009	2010	2011	2012	2013	2014 YTD
Operator Qualification Supervisor	1	1	1	1	1	1
Technical Specialist	1	1	1	1	1	2
Contract Administrative Associate	1	1	1	1	1	
Project Specialist						1
Technical Advisor (Part-Time)			0.5	0.5	0.5	0.5
Operator Qualification Project Manager						1

In addition, several Training Instructors assisted the Operator Qualification department each year as subject matter experts with training / testing material development; however, their time was not tracked. It is estimated that their time is approximately equal to 2 FTEs per year.

ORA DATA REQUEST
ORA-SCG-DR-015-DAO
SOCALGAS 2016 GRC – A.14-11-004
SOCALGAS RESPONSE
DATE RECEIVED: NOVEMBER 26, 2014
DATE RESPONDED: DECEMBER 19, 2014

6. On page FBA-63 to FBA 64 SoCalGas discusses the elements of its quality assurance and compliance assurance functions. Please provide the following information regarding this subject:
    a. A copy of the project scope and study results for the Quality Assurance program pilot under DIMP and recorded expenses incurred since the program's implementation to now.
    b. A detailed explanation showing how the pilot program led to the proposed addition of 13 employees (1 Team Lead and 12 Quality Assurance Specialists) in 2016 and include a copy of all calculations and supporting documentations used to derive the proposed employee additions.
    c. Does SoCalGas currently have a Quality Assurance program for gas operations pipeline maintenance? If yes, please provide (i) a copy of the program scope, (ii) the number of employees assigned to this program, (iii) the annual expenses from 2009-2014, and (iv) a list identifying the new/additional activities that the new Quality Assurance program will cover in 2016 compared to the current Quality Assurance program.

SoCalGas Response:

a. A copy of the project scope and study results can be found in the separately provided document, SCG-ORA-DR-015-DAO_Q6.pdf.

   The recorded expenses through 2013 can be found in the table below. Amounts are shown in nominal dollars, and include vacation and sick time. 2014 expenses are not readily available.

	2011	2012	2013
Employees	2 Part Time*	2 Part Time*	5**
Annual Expense (Nominal $)	$ 78,772	$ 17,226	$ 340,955

* Part Time Instructors

** DIMP Quality Assurance Program fully staffed in the third quarter of 2013

Responses to remaining question(s) omitted for convenience.

ORA DATA REQUEST
ORA-SCG-DR-015-DAO
SOCALGAS 2016 GRC – A.14-11-004
SOCALGAS RESPONSE
DATE RECEIVED: NOVEMBER 26, 2014
DATE RESPONDED: DECEMBER 19, 2014

7. Referring to Gas Operations Pipeline Maintenance, Cathodic Protection, as discussed on page FBA-64 to FBA-65, provide (a) the number of employees assigned to Cathodic Protection, for program management as well as field employees, by employee classification, and highlight the number of Cathodic Protection Technical Advisors, for each year from 2009-2014 YTD, (b) the annual expenses incurred for Cathodic Protection each year from 2009-2014 YTD, (c) an explanation of how SoCalGas determined it will need 2 Cathodic Protection Technical Advisors by 2016, (d) all supporting documents and calculations to support the claim that CP systems are requiring additional analysis and improvements in 2016 and beyond compared to previous years, (e) all supporting documents and calculations to support SoCalGas' claim that the current CP systems will be improved as a result of additional technical and analytical expertise, (f) a statement describing the specific improvements of the new CP system compared to previous years, and (g) all supporting documents and calculations to support SoCalGas' implied claim that the loss of expertise due to workforce turnover is different and worse than the base year.

SoCalGas Response:

g. Please see information in the table below, showing the number of employees who are eligible to retire in each forecast year.

Employee Classification	Current Employees (As of 4/28/14)	Number of Employees Eligible to Retire			Percentage of Employees Eligible to Retire		
		2014	2015	2016	2014	2015	2016
Lead System Protection Specialist / Planner	13	10	10	10	77%	77%	77%
System Protection Specialist	63	25	27	30	40%	43%	48%

Responses to remaining question(s) omitted for convenience.

ORA DATA REQUEST
ORA-SCG-DR-015-DAO
SOCALGAS 2016 GRC – A.14-11-004
SOCALGAS RESPONSE
DATE RECEIVED: NOVEMBER 26, 2014
DATE RESPONDED: DECEMBER 19, 2014

9. Please provide a copy of the SoCalGas Operations Audit by CPUC Safety and Enforcement Division cited on page FBA-58, footnote 26.

SoCalGas Response:

Please refer to the separately provided document, ORA-SCG-DR-015-DAO_Q9.pdf.

Attachment "ORA-SCG-DR-015-DAO_Q9.pdf"

Southern California Gas Company

A Sempra Energy utility"

W. Jeff Koskie
Pipeline Safety and Compliance Manager
555 W. Fifth Street, M.L. GT-11A6
Los Angeles, CA 90013
Phone: 213 305-8660
Fax: 213-244-8223

January 14, 2014

Mr. Michael Robertson, P.E.
Program Manager
Gas Safety and Reliability Branch
Consumer Protection and Safety Division
California Public Utilities Commission
320 W. Fourth Street, Suite 500
Los Angeles, CA 90013

Dear Mr. Robertson:

The Safety and Enforcement Division (SED) of the California Public Utilities Commission conducted a General Order 112-E Comprehensive Operation and Maintenance Audit of Southern California Gas (SoCalGas or SCG) Company's Northern Region (Region) on February 18- 22, 2013. SED reviewed the Region's operation and maintenance records for the period of March 2012 through January 2013, and conducted random field inspections of various gas operation and maintenance related activities in the Region's Santa Maria and Santa Barbara Districts. SED also reviewed the Region's Operator Qualification records, which included field observations of randomly-selected individuals performing various covered tasks.

In your letter dated December 2, 2013 and received on December 3, 2013 a 'Summary of Audit Findings' was attached which identified areas of probable violations of GO 112-E Reference Title 49 of the Code of Federal Regulations (CFR) Part 192, along with a request for a written response indicating corrective actions taken by SoCalGas within thirty days of our receipt. Your letter also identified areas of concern. Attached is our written response.

SoCalGas looks forward to working with you and your staff to address areas of probable violations and any other concerns you might have. Please feel free to contact me at the number above or Troy Bauer at (909) 376-7208 if you have any questions or need additional information.

Sincerely,

W. Jeff Koskie
Pipeline Safety and Compliance Manager

Attachments

Cc: Jerry Palo Jr., CPUC/LA/GSRB
Kan-Wai Tong, CPUC/LA/GSRB
Randy Holter, CPUC/LA/GSRB
Durga Shreshta CPUC/LA/GSRB

Attachment 1
Response to Areas of Probable Violations

Area of Probable Violation

I. Title 49, Code of Federal Regulations (CFR), §192.605 (a)

Title 49, CFR §192.605 Procedural manual for operations, maintenance, and emergencies states:

"(a) General. Each operator shall prepare and follow for each pipeline, a manual of written procedures for conducting operations and maintenance activities and for emergency response. For transmission lines, the manual must a/so *include procedures for handling abnormal operations. This manual must be reviewed and updated by the operator at intervals not exceeding 15 months, but at least once each calendar year. This manual must be prepared before operations of a pipeline system commence. Appropriate parts of the manual must be kept at locations where operations and maintenance activities are conducted."*

SED reviewed SCGs' Operating and Maintenance Program (O&M) and noted that the Region failed to prepare or follow SCG's procedures in the following areas:

a. SED observed a Region technician performing covered task CT # 16.3, Inspecting, Operating and Maintaining Distribution system valves, for Valve #5, located at Alisal Rd. North of Juniper Ave., in the city of Solvang. SED observed that the technician did not follow steps 6. 7 to 6.10, 6.12, and 6.13 of the SCG Procedure 184.16, Valve Inspection and Maintenance- Distribution, which states:

"6. 7. Mark this position on the pavement, valve stand, or other suitable location. If valve position indicator is *NOT visible (valve* is *in casing), mark a reference line on a suitable location. The example below* shows *pavement* as *the suitable location. If casing* is *not in paving, mark* a *suitable reference line* as *field conditions dictate.*

6.8. Mark the full travel of the valve.

6.9. Mark a *1/16 total movement reference line.*

6.10. Install the valve wrench. Mark a *reference point on the wrench* so *that the wrench marks lines up with the position indicator reference mark or the reference line on the pavement*

6.12. Return valve to original position by lining up mark on wrench back to pavement mark.

6.13. Remove mark from valve wrench."

The Region technician did not mark the ground, even though the ground was suitable for marking. SED asked the technician why he did not mark the ground. The technician explained that he used his foot as a reference point. SED observed the technician move his foot around, but the technician did not establish a fixed reference point as described in steps 6.7 to 6.10, 6.12, and 6.13 of the procedures (See Attachment 1 - Pictures). Attachment 2 contains pictures of another SCG crew properly exercising Valve # 406, as required by Procedure SCG 184.16.

SCG Procedure SCG 184.16 Section 4.1.1 states: "*Test valve casing for leaking gas*".

The Region technician did not test the valve casing for leaking gas after exercising Valve #5; therefore, the Region is in violation of Title 49 CFR, §192.605 (a).

b. The Region failed to retain the records of "Self Audits" for two years as required in Section 7 of SCG Standard SCG 100.0152: "Original signed copies of completed self-audit worksheets are retained on file in the Regions for a minimum of 2 years after the completion of the monthly self-audit. Send a copy of completed self-audits (Appendix A) to the Measurement, Regulation & Control Manager and to the Field Operations Manager, Technical Services Manager or Storage Operations Manager as appropriate".

   The Region retained the "Self Audit" records for only 30 days ; therefore, the Region is in violation of Title 49 CFR, §192.605 (a).

c. SCG Standard SCG 186.02, Section 5, "OPERATOR QUALIFICATION COVERED TASKS", does not include requirements to qualify for Task 2.11, Inspecting pipe for internal corrosion when removed. SCG must review its Standard SCG 186.02, Section 5 and include requirements to qualification for Task 2.11, Inspecting pipe for internal corrosion when removed.

Response

a) No violation occurred. SED references 49 CFR 192.605(a) "*... shall prepare and follow ... a manual of written procedures for ... operations and maintenance ...*"

   i. The employee performed the operation in compliance with section 6.7 of Gas Standard 184.16, which states: "*If casing is not in paving, mark a suitable reference line as field conditions dictate.*" In this case, the employee marked a line in the dirt, and placed his foot on it for further reference. The employee's comments and review of the associated Gas Standard make clear that the employee properly performed this task in compliance with the Gas Standard and the associated GO 112-E regulations and no violation of 49 CFR 192.605(a) occurred.

   ii. The employee performed the operation in compliance with section 4.1.1 of Gas Standard 184.16, which states: "*Test valve casing for leaking gas.*" The employee tested the valve casing for leaking gas as the initial step in the inspection. The Gas Standard does not require a second inspection. Therefore, the employee properly performed this task in compliance with the Gas Standard and the associated GO 112-E regulations and no violation of 49 CFR 192.605(a) occurred.

b) A change in database systems, combined with staff and field supervisor self audit reviews, led to a records retention error in Northern Region, resulting in completed records being retained for less than the Gas Standard retention period of two years.

c) No violation occurred. Gas Standard 186.02, "Inspection of Exposed Pipe," focuses primarily on external corrosion and wrap conditions. The procedure references and directs the reader to two different procedures for internal inspections—Gas Standard 167.0232 and Gas Standard 223.0095. Both of these procedures list the covered task, 2.11-Inspecting pipe for internal corrosion, for

conducting these internal inspections. Therefore, no violation of the Gas Standard, associated GO 112-E regulations or 49 CFR 192.605(a) occurred.

Actions

a) 1. As no violation occurred, no action is required.
2. As no violation occurred, no action is required.

b) Records retention practices for the associated documents have been brought into compliance with Gas Standard retention requirements.

c) As no violation occurred, no action is required. To avoid any potential confusion in the future, Gas Standard 186.02 has been revised to add the 2.11 covered task.

Area of Probable Violation

II- Title 49, CFR §192.605(b)(8)

Title 49, CFR, §192.605 Procedural manual for operations, maintenance, and emergencies states:

"Each operator shall include the following in its operating and maintenance plan:

(b) Maintenance and normal operations. The manual required by paragraph (a) of this section must include procedures for the following, if applicable, to provide safety during maintenance and operations.

(8) Periodically reviewing the work done by operator personnel to determine the effectiveness and adequacy of the procedures used in normal operation and maintenance and modifying the procedure when deficiencies are found."

SED found no records that show that the Region was periodically reviewing the work done by its personnel to determine the effectiveness and adequacy of the procedures used in normal operation and maintenance. Since there were not records, SED asked for a copy of the applicable procedure. SED found that SCG does not have a procedure addressing "Periodically" reviewing the work done by operator personnel to determine the effectiveness and adequacy of the procedures used in normal operation and maintenance. Therefore, SCG is in violation of Title 49 CFR, Part 192, §192.605(b)(8).

Response

No violation occurred. Our internal notes taken during the audit show that self audit records for patrols of valves, bridges and spans and leakage surveys were shared with the SED staff while in the field during the audit inspection period. Furthermore, SoCalGas has several procedures that address 192.605(b)(8) "*Periodically reviewing the work done by operator personnel.*" Specifically, Gas Standards 203.005, 203.007, 203.008, 203.016, and 203.017 satisfy this requirement for distribution operations and maintenance activities.

Each Gas Standard indicates *"Self-audits are used by supervisors to periodically review the response of employees conducting inspections of. . ."* (depending on inspection type). *"It is also used to determine the effectiveness of the process controlling abnormal operating conditions and taking corrective action where deficiencies are found."* These Gas Standards further indicate the frequency at which these self-audits are to be conducted to satisfy the "periodically" aspect of the code. SED's contention that SoCalGas does not have procedures to address this code section is incorrect. SoCalGas is in compliance with 49 CFR 192.605(b)(8).

Actions

As no violation occurred, no Action is required.

Area of Probable Violation

III- Title 49CFR §707(d)(2)

Title 49, CFR § 192.707 Line markers for mains and transmission lines states:

"(d) Marker warning. The following must be written legibly on a background of sharply contrasting color on each line marker:

(2) The name of the operator and telephone number (including area code) where the operator can be reached at all times."

SED found a SCG pipeline marker for span, BS-361, at the north side of Coyote Road and Sycamore Canyon Road, Santa Barbara, in which the phone number written on the marker to call in case of an emergency was incorrect (See Attachment 3). The Region replaced the marker with a new pipeline marker that had the correct phone number written on it during the inspection. By failing to display a workable telephone number, the Region was in violation of Title 49 CFR Part 192, Section 192.707(d)(2).

Response

No violation occurred. In the picture provided as Attachment 3 to your December 3, 2013 letter, the phone number is unreadable. A meeting was held on December 19, 2013 with SoCalGas' Pipeline Safety and Compliance Advisor, Troy Bauer, and SED Lead Auditor for the Northern Region audit. During this meeting, Mr. Bauer asked to view the original pictures to obtain a clearer view. In viewing the pictures, the SED Lead Auditor indicated the picture was of the replaced sign. Bauer asked if she had a picture of the sign with the purportedly incorrect number. The SED Lead Auditor indicated no, she did not have her camera ready at that time. Mr. Bauer then asked if she knew what number was on the replaced sign. The SED Lead Auditor indicated she might have it in her notes but was not certain. Mr. Bauer asked if she had called the number to reach the conclusion that it was not a "workable telephone number." The SED Lead Auditor indicated "no."

If the number on the line marker had been called, it would have reached a SoCalGas office. At the request of SED staff, the auditors were allowed to observe inspection orders that were due (Live Inspections), as opposed to observing simulated inspections at specific locations. This particular inspection was a "Live Inspection," and part of the tasks of the qualified employee conducting the inspection is to address the signs used to identify above ground pipelines. This includes changing signs that are faded, damaged, vandalized by graffiti, etc. Therefore, no violation of 49 CFR 192.707(d)(2) can be presumed merely because the sign was changed consistent with SoCalGas procedures.

Actions

As no violation occurred, no action is required.

Area of Probable Violation

IV- Title 49, CFR §192.805 (b)

Title 49, CFR, §192.805 Qualification program states:

"(b) Ensure through evaluation that individuals performing covered tasks are qualified;"

SED found that a SCG contractor, South West Construction, performed the covered task, X-Ray for a 6 and 8 inches welded pipeline, during September 24, 2012- November 11, 2012 for the Project SL44-768, HCA Replacement in Nipomo, Santa Maria, without proper Operator Qualification, (OPQUAL). Records provided by the Region showed that the technician was only OPQUAL qualified by Valley X-Ray Company to perform CT # 1.4 "Making permanent field repair of damages, leaks and joints on mains and services" (See Attachment 4). In addition, SCG Standard, SCG 187.0200, *Radiographic Procedures and Radiographer Qualification,* does not require OPQUAL qualification for Radiographer.

The Region was not able to provide any records to show that the technician who performed X-Ray was OPQUAL qualified. Therefore, the Region is a violation of Title 49 CFR Part 192.805(b).

Response

No violation occurred. SoCalGas covered task 1.4 *"Making permanent field repair of damages, leaks and joints on mains and services"* governs all Non-Destructive Testing (NDT) processes. The Region provided records that show the contractor technician was qualified on covered task 1.4. Furthermore, Gas Standard 187.0200 mandates that any, *"...personnel involved in performing radiographic testing on welds made for Company projects shall be certified according to API-1104 and ASNT-SNT-TC-1A. Only personnel with a certification of ASNT Level II or Level III shall conduct radiographic examinations and interpret results of those examinations ..."*

In addition, under 2.2 of the Standard, *"Radiographers are certified by Company upon successful completion of the following steps: Pass all the required Department of Transportation (D.O.T.) drug tests., Have an accepted Operator Qualification Plan on file. , Produce quality radiographs of a circumferential weld and a tie-in band weld., Correctly interpret Company furnished radiographs of pipe weldments., Prepare a written report evaluating the radiographs produced, as well as those furnished by the Company."* The individual performing the covered task was appropriately qualified and therefore, no violation of 49 CFR 192.805(b) occurred.

Actions

Consistent with our commitment to continuous improvement, SoCalGas will separate out four covered tasks for the NDT functions from their current location in covered task 1.4. These tasks are NDT-MT (Mag Particle), NDT-XRAY,NDT-UT (UltraSonic) and NDT-PT (Particle/Dye Penetrant) and are anticipated to be on the matrix by the end of 2014. This action is responsive to input received during a July 2013 meeting with SED Lead Auditor and the Operator Qualification, Welding and Safety Pipeline and Compliance departments to discuss NDT of contract employees.

Area of Probable Violation

V- Title 49, CFR §192.805 (b)

Title 49, Code of Federal Regulations §192.805 Qualification program states:

"(g) Identify those covered tasks and the intervals at which evaluation of the individual's qualifications is needed."

SED staff found that SCG failed to identify Non-Destructive Test, Radiography, as a Covered Task in the SCG OPQUAL Program. Therefore, SCG is in violation of Title 49 CFR Part 192, Section 192.805(g).

SCG failed to identify Radiographic Procedures and Radiographer Qualifications, SCG # 187.0200, last reviewed on 05/25/2012, as an OPQUAL procedure.

SCG must review its procedure and mark "Yes" the "Contains OPQUAL Covered Task" line on the "Summary of Documents changes and Filing Instruction" sheet, (last page of the procedure). Additionally, SCG must include OPQUAL requirements qualification for Radiographer performing Task Non-destructive Testing (NOT) in its own procedure. Electro fusion Process is a Covered Task, and employees are OPQUAL qualified to perform this task; therefore, SCG must add Electro fusion Process to the OPQUAL Program. SCG should also include the Electro-fusion Process in its OPQUAL Program Procedure, SCG 167.0100, Covered Task List Appendix A.

Response

No violation occurred. SoCalGas covered task 1.4, "*Making permanent field repair of damages, leaks and joints on mains and services*" is used by SoCalGas to cover all Non-Destructive Testing (NDT) processes. Gas Standard 187.0200 indicates the need to "Have an accepted Operator Qualification Plan on file." The clerical error of not specifically indicating Cover Task 1.4 has been corrected.

The "summary pages" that accompany Gas Standards are not considered part of those standards. Nor do the summary pages change the content of the standards themselves. They are intended to provide a brief summary of changes and filing instructions when changes occur to a standard. SoCalGas covered task 1.4, "*Making permanent field repair of damages, leaks and joints on mains and services*" is used by SoCalGas for all pipe joining qualifications, including Electro-fusion.

Actions

Consistent with our commitment to continuous improvement, SoCalGas will separate out six covered tasks for welding and fusion from their current location in covered task 1.4. These tasks include: Welding, Butt Fusion, Electro-fusion, Mechanical Fusion, Sidewall Fusion, and Socket Fusion and are striving to be on the matrix by the end of the fourth quarter of 2014. This action is also responsive to input received during the July 2013 meeting with the SED Northern Region Lead Auditor.

Areas of Concern:

1. SED observed the Region take Cathodic Protection (CP) readings in CP Area HM 044 at points B, E, G and H, which did not meet the -0.850V criteria as defined in Appendix D of Title 49 CFR, Part 192. All the CP readings were in the -0.500V range. Please provide a status report regarding the CP at these locations.

   Response

   a. Two electrically-shorted Meter Set Assemblies were located during troubleshooting performed on 2/27/13. Orders were issued for the insulators to be changed.
   b. CP Area HM044 was reading criteria-level reads as of 3/27/13 (B> -0.986VDC, E>-1.001VDC, G> -0.982VDC, H> -0.981VDC).

   Actions

   No further action is required.

2. Due to low internet access in the areas SED field inspected, the Region technicians were not able to access in the field any of SCG's Standards during the field inspection. SCG technicians should consider bringing a hard copy of the applicable SCG procedures as backup.

   Response

   The field technicians have access to radios, which provide the ability to contact their supervisors directly or through dispatch, and are able to request that their supervisors provide them with copies of any Gas Standard needed.

   Actions

   No action is required.

3. SED inspected Bridge and Span – S071, located at the South side of Santa Ynez River Bridge and East site of Lompoc City Airport and discovered a valve inside of a vault that Region did not have protected with a cover. SED observed that the valve was covered with debris.

   Response

   Throughout CFR Part 192 there is mention of enclosures and pits for valves, however there is no mention that they MUST be covered or have a lid/cover. Requirements are:

1) 192.181(c)(1) The valve must be placed in a readily accessible location so as to facilitate its operation in an emergency.

Actions

Our field technician visited the site and was able to clear the loose debris from the pit and position himself to operate the value in less than three minutes. A vault lid has been installed at this location. No further action is necessary.

4. In the Region's Pipeline Condition and Maintenance Report record number 034673 dated 12/15/2012, (See Attachment 6), it used dash lines "-"for External/Internal Pipe Condition. SCG does not have a condition code for dash line "-" in its Standard, SCG 186.02, Appendix A or on its Form 677-1. The Region's personnel should be more careful when entering data to avoid similar typographic errors.

Response

Document and procedure will be reviewed with the employee who completed the form.

Actions

Document and procedure will be reviewed with the employee who completed the form. We will consider revising Gas Standard and form instructions for clarity.

5. SCG Standard SCG 186.02, Section 6.4, states, "If there is a need for corrective action on a section of corroded pipe, Form 677-1 Pipeline Condition and Maintenance Report shall be completed and kept on file at the Distribution Region or Transmission District." The Region should revise Standard SCG 186.02, Section 6.4, to request that the Form 677-1, Pipeline Condition and Maintenance Report, to be used each time when a pipe is exposed or cut for any reason, to comply with Title 49 CFR Part 192.459.

Response

Gas Standard and Form 677-1 instructions will be reviewed by SoCalGas.

Actions

We will consider revising the Gas Standard and form instructions for clarity.

6. SED found that some pipeline markers were missing at the following Railroad Crossings:

   a) On pipeline 36-1032 at Rail Road Crossing, North side of the intersection of "J" St. and Laurel St. in Lompoc
   b) On pipeline 36-1032 at Rail Road Crossing, North of Battles Rd, in the same city.

The Region installed pipeline stickers on the vent casing at both locations during the audit. Pipeline Markers at Railroad Crossing must be maintained to comply with Title 49 CFR Part 192.707(a)(1).

Response

As previously indicated in our Response to Probable Violation III, this was a "Live Inspection" and part of the tasks of the qualified employee conducting the inspection is to address the signs used to identify above ground pipelines, which may include the replacement of missing and/or damaged signs.

Actions

As indicated in the identified Area of Concern, pipeline stickers were installed at both locations during the audit. No further action is required.

ORA DATA REQUEST
ORA-SCG-DR-017-DAO
SOCALGAS 2016 GRC – A.14-11-004
SOCALGAS RESPONSE
DATE RECEIVED: DECEMBER 2, 2014
DATE RESPONDED: DECEMBER 17, 2014

Exhibit Reference: SCG-4, Gas Distribution O&M and Capital Expenditures

Subject: Asset Management, Compliance Technical Advisors and Administrative Control Clerks

Please provide the following:

4. If the four CTAs SoCalGas requests for 2016 will be responsible for new work activities previously not performed by the technical/planning office of Asset Management, please so state, and provide an explanation of how these new activities were identified. Please provide a copy of all supporting documents.

SoCalGas Response:

The Compliance Technical Advisors will provide broader oversight and support of existing activities, expanding existing compliance monitoring, record-keeping, and reporting. They will also provide additional training to field personnel and local management. In addition, the Compliance Technical Advisors will review compliance reports from a broad perspective to identify and correct potential compliance issues.

The workflow of researching, documenting, auditing, and training related to incremental compliance activities has, in our observation increased over time and has outgrown existing resources. Examples of areas where additional resources are needed include:

- Coordination of an increasing number of CPUC audits. The number of Gas Distribution audits has grown from four annual audits in 2012 and 2013 to eight[172] audits in 2014 and 14 multiple week audits scheduled for 2015.
- Additional oversight for the leak reduction effort discussed on pages FBA-35 – FBA-36, FBA-40 – FBA-41, and FBA-103 – FBA-104 of Exhibit SCG-04.
- Assistance with compliance monitoring responsibilities currently performed by System Protection Supervisors. This will free up the supervisors to focus on the incremental cathodic protection system enhancements described on pages FBA-29 – FBA-30 and FBA-112 – FBA-113. The System Protection Supervisors are discussed more in response to Question 5 below.
- Additional oversight for the increasing footage of leak survey discussed on pages FBA-21 – FBA-22. The leak survey footage for 2014 is projected to be more than 21 million feet above the 2013 level. This increase in footage means that more data needs to be managed for compliance due dates, reviewed for accuracy, and reconciled.

[172] Ten Gas Distribution audits were initially scheduled for 2014, but two of those were cancelled.

ORA DATA REQUEST
ORA-SCG-DR-017-DAO
SOCALGAS 2016 GRC – A.14-11-004
SOCALGAS RESPONSE
DATE RECEIVED: DECEMBER 2, 2014
DATE RESPONDED: DECEMBER 17, 2014

8. If the four ACCs SoCalGas requests for 2016 will be responsible for new work activities previously not performed by Pipeline Records Management, please so state, and provide an explanation of how these new activities were identified. Please include a copy of all supporting documents.

SoCalGas Response:

To clarify the term "Pipeline Records Management" as used in workpapers, the term refers to the type of activities performed and not to an organization or group. Currently, there are no specific employees assigned to managing pipeline records in the Gas Distribution technical offices. Instead, each employee who accesses a pipeline record is responsible for tracking and updating that record. With the addition of these clerks, there will be new activities, such as tracking documents being checked in and out, and verifying that documents are returned to archives. This is described on page FBA-53 of Exhibit SCG-04:

> Governmental agencies are placing greater emphasis on the record-keeping practices of pipeline operators. As the expectation of increased record-keeping and document quality control management increases, SoCalGas is required to take greater action to safeguard the integrity of construction and maintenance records and related paper files, while making them easily accessible to employees that reference them as part of their normal work activities, as well as to regulators and auditors. SoCalGas is therefore committed to establishing documentation practices that provide for the development and retention of reliable, traceable, and verifiable records on a going-forward basis. To adequately record work history and maintain these records, SoCalGas requests the addition of four Administrative Control Clerks (one per technical office). These Administrative Control Clerks will be responsible for daily record filing, keeping track of records being checked out to verify those documents are returned to archives, and reconciling and tracking high pressure project packages after new construction is completed.

ORA DATA REQUEST
ORA-SCG-DR-028-DAO
SOCALGAS 2016 GRC – A.14-11-004
SOCALGAS RESPONSE
DATE RECEIVED: DECEMBER 16, 2014
DATE RESPONDED: DECEMBER 31, 2014

Exhibit Reference: SCG-4, Gas Distribution O&M and Capital Expenditures

Subject: Non-Routine Tool Purchases, Combustible Gas Indicator Equipment Replacement Effort

Please provide the following:

1. Referring to pages FBA-135 and FBA-136 please provide the number of combustible gas indicators/detectors and the number of calibration stations SoCalGas replaced and the expenditures incurred as of December 2014.

SoCalGas Response:

This project has been delayed until 2015, so no combustible gas indicators or calibration stations were placed into service in 2014.

ORA DATA REQUEST
ORA-SCG-DR-073-DAO
SOCALGAS 2016 GRC – A.14-11-004
SOCALGAS PARTIAL RESPONSE
DATE RECEIVED: FEBRUARY 19, 2015
DATE RESPONDED: MARCH 5, 2015

Exhibit Reference: SCG-4, Gas Distribution O&M and Capital Expenditures

Subject: Operations Management and Training

Please provide the following:

3. Please confirm that the Distribution Office clerks, referenced in lines 20-22 on page FBA-61, (a) have not yet received formal training with regard to the new electronic systems and work processes of Click, GIS, and SAP at this time, and (b) that these clerks will receive formal training materials and instruction on the new electronic systems and work processes beginning in 2016, and (c) provide the time-frame in which these clerks will complete the formal training and instructions on the new electronic systems and work processes.

SoCalGas Response:

a. As stated in testimony, the employees currently completing work have been trained on the job. As of March 2015, the formal centralized training classes for new clerical employees are in the process of being created and have not been delivered. While having received no centralized formal training, the existing Distribution office clerks have received end-user training as the new technologies have been implemented.

Responses to remaining question(s) omitted for convenience.

ORA DATA REQUEST
ORA-SCG-DR-073-DAO
SOCALGAS 2016 GRC – A.14-11-004
SOCALGAS PARTIAL RESPONSE
DATE RECEIVED: FEBRUARY 19, 2015
DATE RESPONDED: MARCH 5, 2015

6. Referring to SoCalGas' statement on page FBA-60, in which SoCalGas states, " SoCalGas will implement a high pressure training program composed of subject matter experts in the high pressure pipeline field," please provide the following:
    a. Please provide the definition of "high pressure" in this statement, and state whether or not this refers to distribution or transmission;
    b. Does SoCalGas currently have a high pressure training program to develop training modules for high pressure pipeline construction? If no, please explain why? If yes, please explain how the proposed high pressure training program will be different in 2016.
    c. Provide the time-frame from start to finish for the development, refining, and delivering of Operator Qualification technical training requiring the 2 high pressure Technical Advisors.

SoCalGas Response:

a. SoCalGas defines high pressure pipelines as those operating at greater than 60 psig. These lines are in both distribution and transmission systems. The high pressure lines referenced in the testimony of Frank Ayala refer to the high pressure supply lines operated by Gas Distribution.

b. SoCalGas has a high pressure training program that has been growing in number of students as we lose existing expertise to retirements, and in scope with the enhanced emphasis from state and federal regulators. Proposed additions to the program will include double block in bleed training, non-destructive testing, and the comprehensive expanded operator qualification industry standards associated with the implementation of B31Q[173].

c. Each module is estimated to take one year for development and one year to roll-out; however, it is anticipated that there will be an ongoing need for new modules as regulations change, policies are updated, and new technologies are introduced.

[173] ASME B31Q Edition 10 (September 30, 2010).

ORA DATA REQUEST
ORA-SCG-DR-074-DAO
SOCALGAS 2016 GRC – A.14-11-004
SOCALGAS RESPONSE
DATE RECEIVED: FEBRUARY 19, 2015
DATE RESPONDED: MARCH 5, 2015

Exhibit Reference: SCG-4, Gas Distribution O&M and Capital Expenditures

Subject: Operations Management and Training

Please provide the following:

1. Referring to SoCalGas' response to ORA's data request ORA-15, question 6 (a-c), please provide the following information:
    a. SoCalGas notes that in the third quarter of 2013, the DIMP Quality Assurance Program was fully staffed with 5 employees and incurred a total of $340,955. Please provide the 2014 recorded expenses for the Pilot QA program and identify the number of FTEs by job title/classification;
    b. What's the difference between Districts and Bases in SoCalGas' system?
    c. Identify the number of Districts in SoCalGas' distribution system;
    d. Does SoCalGas have a similar Quality Assurance program for its transmission system? If no, please explain why not. If yes, please identify the number of transmission bases and districts and provide the number of Quality Assurance FTEs used each year to audit these bases and districts and auditing costs each year from 2009-2014.
    e. Referring to the calculations and assumptions provided in response to question 6(b), explain in detail (i) how SoCalGas determined the desired frequency of 6 audits per base per year, and (ii) if and how this frequency was derived from the Pilot QA program.
    f. Referring to the calculations and assumptions provided in response to question 6(b), explain in detail how SoCalGas determined that each FTE could complete 2 audits per month? If SoCalGas' assumption of 2 audits per month per FTE was derived from the Pilot QA program, please so state and show how the Pilot QA program was used to determine this forecast. Provide support for this assumption.
    g. Since the Pilot QA program will complete by December 31, 2015 and be transitioned to Gas Distribution operations in 2016, has SoCalGas backed out the expenses associated with this program from SoCalGas' 2016 DIMP forecast? If yes, please explain how this can be confirmed. If no, please explain why not.

SoCalGas Response:

SoCalGas Response to Question 1, Continued:

e. Please refer the response to Question 6 in ORA-SCG-DR-015-DAO for the calculations showing how Gas Distribution determined that the desired frequency was 6 audits per base per year:

Desired Frequency of Audits for Each Base
= Every Other Month
= 6 Audits / Base / Year

Locate and Mark audits are currently completed twice a year for each base. Leak Survey, Pipeline Patrol, Bridge and Span, and Valve Inspection audits are completed four times per year for each base. Data gathered to date demonstrates not only the need for this critical program, but the expansion and deepening of the program. By expanding this program, each base will be audited at an increased rate of six audits per year (every other month) in 2016. This increased rate will benefit each base in several ways, including reinforcement of current policies and methods, reinforcement of revised policies and methods when updates occur, enhanced communication between bases and QA regarding possible or suspected deficiencies in policies and/or procedures, immediate feedback to employees if there are gaps in training, and increased developmental opportunities for employees performing compliance inspections and locate and mark functions.

SoCalGas Response to Question 1, Continued:

f. Please see the calculations in the table below showing that, on average, approximately two audits can be completed per month by each FTE.

TYPE OF AUDIT	WORKING HOURS PER FTE				CURRENT QA PROGRAM				2016 QA PROGRAM		
	Hours per Year per FTE	Vacation & Sick Rate	Working Hours per Year per FTE	Working Hours per Month per FTE	Total Employees	Number of Audits per Base per Year	Total Base Audits per Year	Hours per Base Audit per FTE	Additional Hours to be Spent per Audit per FTE	Total Forecasted Hours per Base Audit per FTE	Resulting Audits per Month per FTE
	[A]	[B]	[C] ([A]*(1-[B]))	[D] ([C]/12)	[E]	[F]	[G] (52*[F])	[H] ([C]*[E]/[G])	[I] ([H])	[J] ([H]+[I])	[K] ([J]/[D])
Locate & Mark	2,088	17.40%	1,725	144	1	2	104	17	0	17	
Leak Survey, Pipeline Patrol, Bridge and Span, & Valve Inspection	2,088	17.40%	1,725	144	4	4	208	33	33	66	
Total Audit	2,088	17.40%	1,725	144	5			50	33	83	1.7

Calculation Assumptions:

[B] 5-Year (2009 - 2013) Average Vacation & Sick Time Rate.

[E] Current Number of FTEs Performing QA Work.

[F] Current Number of Times Each Base is Audited per Year with Existing FTEs.

[G] 52 Bases Multiplied by the Number of Audits per Year.

[I] Currently in the pilot stage, the QA program is gathering rudimentary foundational data including unreported abnormal operating conditions (including leakage), clerical data, supervisor reporting/self-audit data and leakage instrument and locate and mark instrument data. In 2016, the QA time for each base audit for leak survey, pipeline patrol, bridge and span, and valve inspection is forecasted to double to in order to include the following incremental / expanded activities:

- Each employee will perform a deeper and more extensive review of records.
- More time can be allowed for field checks. Currently, field checks (with the exception of Valve Inspection orders), are completed post order completion.
- Real time auditing.
- Training and developmental opportunities by way of QA Specialists directly interacting with employees performing vital compliance inspection activities.

Responses to remaining question(s) omitted for convenience.

ORA DATA REQUEST
ORA-SCG-DR-087-DAO
SOCALGAS 2016 GRC – A.14-11-004
SOCALGAS RESPONSE
DATE RECEIVED: MARCH 2, 2015
DATE RESPONDED: MARCH 18, 2015

Exhibit Reference: SCG-4, Gas Distribution O&M and Capital Expenditures

Subject: Field Support Expenses

Please provide the following:

1. In reference to SoCalGas' discussion of its forecast method and cost drivers for Field Support on pages FBA-46 to FBA-FBA-48, please provide the following information:
    a. Referring to SoCalGas' request of $618,000, for 6 Administrative Advisors in 2016, as stated on page FBA-46, please provide all calculations and any and all supporting documents used to derive the number of Administrative Advisors and the expense amount.
    b. Provide the number of Administrative Advisors allocated to Field Support each year from 2009-2014 and the annual expense incurred for these Administrative Advisors.
    c. Regarding the claim of increased turnover in its workforce, as stated on page FBA-46, please provide the number of employees who left employment due to retirement, each year from 2009-2014.
    d. The total number of FTEs assigned to Gas Distribution each year from 2009-2014.
    e. Referring to the request of $412,000 for 4 Field Instructors, as stated on pages FBA-46 to FBA-47, please provide all calculations and any and all supporting documents relied on to derive the number of Field Instructors and expense amount.
    f. The number of Field Instructors allocated to Field Support each year from 2009-2014 and the annual expense incurred for these Field Instructors.

SoCalGas Response:

c. The number of field employees (does not include office employees and supervisors) that retired in the years 2009 – 2014 can be found in the table below:

	2009	2010	2011	2012	2013	2014
Distribution Field Employees	17	23	18	11	34	34
Field Supervisors	5	8	9	6	15	5

Responses to remaining question(s) omitted for convenience.

ORA DATA REQUEST
ORA-SCG-DR-087-DAO
SOCALGAS 2016 GRC – A.14-11-004
SOCALGAS RESPONSE
DATE RECEIVED: MARCH 2, 2015
DATE RESPONDED: MARCH 18, 2015

2. In reference to the statement on page FBA-47, "The number of Operator Qualification covered tasks is increasing from 55 to 125 and will require the qualification of all impacted employees," please provide the following information:
    a. a definition of "covered tasks" in this statement;
    b. a definition of "impacted employees" and the number of impacted employees;
    c. a copy of all calculations, analyses, any and all documents relied on for the claim that covered tasks are increasing from 55 to 125;
    d. The number of "covered tasks" and "impacted employees" each year from 2009-2014;
    e. a listing of the 55 tasks and the increased 125 tasks;
    f. When will the impacted employees need to be trained/qualified for the 125 covered tasks?
    g. Explain in detail the "qualification" process of the impacted employees for the 125 covered tasks;
    h. What is the "qualification" schedule for the impacted employees regarding the 125 covered tasks?
    i. How often do impacted employees need to go through the "qualification" process for the 125 covered tasks?

SoCalGas Response:

Responses to Questions 2.b. and 2.e. – 2.i. omitted for convenience.

a. Please refer to 49 CFR 192.801(b):

For the purpose of this subpart, a covered task is an activity, identified by the operator, that:

(1) Is performed on a pipeline facility;
(2) Is an operations or maintenance task;
(3) Is performed as a requirement of this part; and
(4) Affects the operation or integrity of the pipeline.

SoCalGas Response to Question 2, Continued:

c. As stated in ORA-SCG-DR-015-DAO, Question 3.c.:

SoCalGas compared the ASME B31Q documentation to our current task list to determine the additional tasks to be added to the program. There are 55 tasks currently, and the program will be expanding to 125 tasks, which is a difference of 70 tasks.

The American Society of Mechanical Engineers (ASME) B31Q standard is copyrighted and consists of more than 200 pages. Access to this document is through purchase, under the provisions of that purchase SoCalGas is not permitted to share it. SoCalGas has requested terms under which it may share that document with regulatory agencies although that permission has not yet been received. Please refer to the separately provided document, ORA-SCG-DR-087-DAO_Q2c.pdf for a list of the existing tasks and expanding tasks.

d. Please refer to data request ORA-SCG-DR-015-DAO, Question 2d. for the covered tasks:

The table below shows the total number of covered tasks per year in the SoCalGas Operator Qualification Program.

Year	*2009*	*2010*	*2011*	*2012*	*2013*	*2014 YTD*
Number of Covered Tasks	*52*	*52*	*52*	*52*	*55*	*55*

The number of covered tasks for 2014 remained unchanged at the end of the year.

Please refer to data request ORA-SCG-DR-015-DAO, Question 3e. for the number of impacted employees for the years 2009 – 2013:

Below are the number of employees initially or subsequently qualified or tested under the Operator Qualification program:

Year	*2009*	*2010*	*2011*	*2012*	*2013*	*2014 YTD as of 12/4/14*
Employees Qualified / Tested	*698*	*298*	*353*	*757*	*795*	*899*

The number of impacted employees for the full year 2014 was 896. Three employees from the 12/4/14 year-to-date total were deemed "no longer performing" covered tasks.

Please refer to the separately document provided in response to Question 2c. above, ORA-SCG-DR-087-DAO_Q2c.pdf for a list of the tasks.

Attachment "ORA-SCG-DR-087-DAO_Q2c.pdf"

Data Request ORA-SCG-DR-087-DAO, Question 2.c.
Operator Qualification Tasks

Count	Task #	2013 Operator Qualification Tasks
1	1.1.	Installing pipeline in a ditch
2	1.2.	Maintaining minimum cover over pipelines
3	1.3.	Conducting abandonment or deactivation of pipeline facilities
4	2.1.	Examining buried pipeline when exposed
5	2.2.	Properly applying external protective coatings for corrosion control
6	2.3.	Monitoring/testing pipelines for cathodic protection
7	2.4.	Monitoring/inspecting cathodic protection rectifiers and anodes
8	2.5.	Monitoring/inspecting reverse current switches and interference bonds
9	2.6.	Taking prompt action to correct any deficiencies indicated by monitoring
10	2.7.	Inspection/testing for adequate electrical isolation
11	2.8.	Determining if there is a sufficient number of test stations
12	2.9.	Determining if test leads are secure, electrically conductive, and properly coated
13	2.10.	Determining if the effect of interference (stray) current is minimized
14	2.11.	Inspecting pipe for internal corrosion when removed
15	2.12.	Regular monitoring for internal corrosion
16	2.13.	Monitoring for atmospheric corrosion
17	2.14.	Recognizing general and localized corrosion, taking action: Transmission
18	2.15.	Recognizing general and localized corrosion, taking action: Distribution
19	2.16.	Connecting Bonds and Test Leads – Thermite/Cadweld
20	2.17.	Connecting Bonds and Test Leads – Pin Brazing
21	3.1.	Leak testing non-welded joints
22	3.2.	Testing reinstated service lines
23	4.1.	Starting, operating, shutting down gas compressor units
24	5.1.	Locating and temporarily marking buried pipelines in the area of excavation activity
25	5.2.	Inspection and standby for prevention of damage to pipelines
26	6.1.	Tapping pipelines under pressure
27	6.2.	Stopcock change on pipeline under pressure
28	7.1.	Purging pipelines
29	8.1.	Patrolling transmission pipelines
30	8.2.	Maintaining line markers for buried mains and transmission lines
31	8.3.	Patrolling distribution systems
32	9.1.	Performing leakage surveys: transmission lines
33	9.2.	Performing leakage surveys: distribution systems
34	9.3.	Testing of underground facilities: Customer Services
35	9.4.	Distribution systems: Leakage Investigations
36	9.5.	Leakage Assessment
37	10.1.	Recognizing a leak, imperfection, or damage that impairs serviceability of a transmission line
38	10.2.	Making permanent field repair of imperfections and damages on transmission lines
39	10.3.	Making permanent field repair of welds on transmission lines
40	10.4.	Making permanent field repair of leaks on transmission lines
41	10.5.	Testing of repairs on transmission lines
42	11.1.	Inspection/testing of remote control shutdown devices in compressor stations

Count	Task #	2013 Operator Qualification Tasks
43	12.1.	Inspection/testing of compressor station gas detection systems
44	13.1.	Inspection/testing of pressure limiting and regulating stations and devices
45	14.1.	Inspection/testing of telemetering devices or recording gauges for distribution pressure districts
46	15.1.	Inspection/testing of relief devices
47	16.1.	Operating valves to discontinue service to customers
48	16.2.	Inspecting, operating, and maintaining transmission pipeline valves
49	16.3.	Inspecting, operating, and maintaining distribution system valves
50	17.1.	Inspecting/ maintaining vaults
51	18.1.	Maintaining gas odorant equipment
52	18.2.	Conducting periodic sampling of odorant

Count	Task #	Expanded List of Operator Qualification Tasks
1	2.3/0001	Measure Structure-To-Electrolyte Potential
2	2.5/0071	Inspect or Test Cathodic Protection Electrical Isolation Devices
3	2.7/0081	Install Cathodic Protection Electrical Isolation Devices
4	2.10/0091	Troubleshoot in-Service Cathodic Protection System
5	2.4/0101	Inspect Rectifier And Obtain Readings
6	2.12/0121	Task Collect Sample For Internal Corrosion Monitoring
7	2.13/0141	Visual Inspection For Atmospheric Corrosion
8	2.1/0151	Task Visual Inspection of Buried Pipe and Components When Exposed
9	2.11/0161	Task Visual Inspection for Internal Corrosion
10	2.14/0171	Measure External Corrosion
11	2.15/0171	Measure External Corrosion
12	10.1/0201	Visual Inspection of Installed Pipe and Components for Mechanical Damage
13	16.2/0301	Manually Opening and Closing Valves
14	16.3/0301	Manually Opening and Closing Valves
15	13.1/0381	Spring Loaded Pressure Regulating Device - Inspection and Testing, Preventive and Corrective Maintenance
16	15.1/0411	Spring - Loaded Pressure Limiting and Relief Device - Inspection, Testing, Preventive and Corrective Maintenance
17	4.1/0441	Compressor Start-Up and Shutdown - Manual
18	0461	(B31Q-Compressor Preventative Maintenance)
19	0471	(B31Q-Reciprocating Compressor Inspection, Testing and Correctie Maintenance
20	0481	(B31Q-Centrifugal Compressor Inspection, Testing and Corrective Maintenance)
21	0491	(B31Q-Rotary Compressor Inspection, Testing and Corrective Maintenance)
22	3.3/0561	3.3 Test requirements for steel and P.E. plastic service lines and mains to operate below 100 p.s.i. (B31Q-Pressure Test: Nonliquid Medium - MAOP Less Than 100 psi)
23	3.4/0571	3.4 Test requirements pipelines to operate at/or above 100 p.s.i. to hoop stress above 30 percent of SMYS (B31Q-Pressure Test: Nonliquid Medium - MAOP Greater Than or Equal to 100 psi)
24	0581	Strength testing (B31Q-Pressure Test Liquid Medium)
25	1.25/0601	NDT - XRAY (B31Q-NDT: Radiographic Testing)
26	1.26/0611	NDT - PT (Particle/Dye Penetrant) (B31Q-NDT: Liquid Penetrant Testing)
27	1.27/0621	NDT - MT (Mag Particle) (B31Q-NDT: Magnetic Particle Testing)
28	1.28/0631	NDT - UT (Ultrasonic Testing) (B31Q-NDT: Ultrasonic Testing)
29	0641	Inspection of material (B31Q-Visually Inspect Pipe and Components Prior to Installation)
30	1.10/0681	Plastic pipe joining and inspection: Mechanical joint. (B31Q-Joining of Plastic Pipe - Stab Fittings)
31	0721	(B31Q-Joining of Pipe - Threaded Joints)
32	0731	(B31Q-Joining of Pipe - Flange Assembly
33	1.12/0751	Plastic pipe joining and inspection: 2", 3", and 4" manual machine plastic butt heat-fusion joints. (B31Q-Joining of Plastic Pipe - Butt Heat Fusion: Manual)
34	1.14/0761	Plastic pipe joining and inspection: 4", 6", and 8" manual machine plastic butt heat-fusion joints. (B31Q-Joining of Plastic Pipe - Butt Heat Fusion: Hydraulic Machine)
35	1.16/0771	Plastic pipe joining and inspection: Sidewall heat-fusion 2"-6". (B31Q-Joining of Plastic Pipe - Sidewall Heat Fusion)
36	1.18/0771	Plastic pipe joining and inspection: Sidewall heat-fusion 6"-8". (B31Q-Joining of Plastic Pipe - Sidewall Heat Fusion)
37	1.20/0781	Plastic pipe joining and inspection: Electrofusion joint. (B31Q-Joining of Plastic Pipe - Electrofusion)

Count	Task #	Expanded List of Operator Qualification Tasks
38	1.22/0791	Plastic pipe joining and inspection: Socket fitting heat-fusions. (B31Q-Joining of Plastic Pipe - Socket Heat Fusion)
39	1.4/0801	1.4 Making permanent field repair of damages, leaks and joints on mains and services. (B31Q-Welding)
40	1.5/0811	0811 - Preparation and inspection of welds (B31Q-Visual Inspection of Welding and Welds)
41	1.1/0861	Installation of Steel Pipe in a Ditch
42	0891	(B31Q-Field Bending of Steel Pipe)
43	0941	(B31Q-Install Tracer Wire)
44	0961	(B31Q-Above Ground Supports and Anchors - Inspection, Preventatve and Corrective Maintenance)
45	0971	(B31Q-Installation and Maintenance of Casing Spacers, Vents and Seals)
46	2.2/0991	Coating Application and Repair - Brushed or Rolled
47	1041	(B31Q-Install Mechanical Clamps and Sleeves - Bolted
48	10.2/1051	Fit-Up of Weld Type Repair Sleeve
49	10.3/1051	Fit-Up of Weld Type Repair Sleeve
50	6.3/1081	6.3 - Tapping a Presserized Plastic pipeline 2" and less (B31Q-Tapping a Pipeline (Tap Diameter 2 in. and Less)
51	6.5/1081	6.5 - Tapping a Presserized Steel pipeline 2" and less (B31Q-Tapping a Pipeline (Tap Diameter 2 in. and Less)
52	6.4/1091	6.4 - Tapping a Presserized Plastic pipeline greater than 2" (B31Q-Tapping a Pipeline (Tap Diameter Greater Than 2 in)
53	6.6/1091	6.6 - Tapping a Presserized Steel pipeline greater than 2" (B31Q-Tapping a Pipeline (Tap Diameter Greater Than 2 in.)
54	6.7/1141	6.7 - Squeezing Pressurized PE Plastic Pipelines. (B31Q-Squeeze Off Plastic Pipe)
55	6.8/1151	6.8 - Squeezing Pressurized Steel Pipelines. (B31Q-Squeeze Off Steel Pipe)
56	1161	(B31Q-Installation of Customer Meters and Regulators - Residential and Small Commercial)
57	1171	(B31Q-Installing Customer Meters - Large Commercial and Industrial)
58	1181	Installing and Maintaining Customer Pressure Regulating, Limiting, and Relief Device - Large Commercial & Industrial
59	9.3/1231	Inside Gas Leak Investigation
60	9.1/1261	Walking Gas Leakage Survey
61	9.2/1261	Walking Gas Leakage Survey
62	5.2/1331	Damage Prevention Inspection During Third Party Excavation or Encroachment Activities as Determined Necessary by Operator
63	1361	Station Emergency Shutdown System - Inspection, Testing and Corrective Maintenance
64	11.1/1371	Operate Gas Pipeline - System Control Center Operations
65	1381	Operate Gas Pipeline - Local Facility Remote-Control Operations
66	1631	ILI - Launching and/or Receiving without Launcher (B31Q-Launching and/or Receiving Internal Devices (Pigs) Without Launcher and/or Receiver for Lines Out of Service
67	1641	ILI - Launching and/or Receiving with Launcher (B31Q-Launching and/or Receiving Internal Devices (Pigs) for Lines In-Service
68	0011	Conduct Close Interval Survey
69	0021	Measure Soil Resistivity
70	0031	Inspect And Monitor Galvanic Ground Beds/Anodes
71	0061	Task Inspect or Test Cathodic Protection Bonds
72	0111	Maintain Rectifier

Count	Task #	Expanded List of Operator Qualification Tasks
73	0131	Task 0131 Insert And Remove Coupons/Probes For Internal Corrosion Monitoring
74	0171	Task Measure External Corrosion
75	0181	Measure Internal Corrosion
76	0191	Measure Atmospheric Corrosion
77	0211	Measure and Characterize Mechanical Damage on Installed Pipe and Components
78	0311	Adjust and Monitor Flow or Pressure - Manual Valve Operation *
79	0311	Adjust and Monitor Flow or Pressure - Manual Valve Operation *
80	0321	Valve Corrective Maintenance *
81	0321	Valve Corrective Maintenance *
82	0331	Valve - Visual Inspection and Partial Operation *
83	0331	Valve - Visual Inspection and Partial Operation *
84	0341	Valve - Preventive Maintenance *
85	0341	Valve - Preventive Maintenance *
86	0391	Pilot - Operated Pressure Regulating Device - Inspection, Testing, Preventive and Corrective Maintenance
87	0401	Controller Type Pressure Regulating Device - Inspection, Testing, Preventive and Corrective Maintenance
88	0411	Spring - Loaded Pressure Limiting and Relief Device - Inspection, Testing, Preventive and Corrective Maintenance
89	0421	Pilot Operated Pressure Limiting and Relief Device - Inspection, Testing, Preventive and Corrective Maintenance (Pressure Limiting Devices)
90	0421	Pilot Operated Pressure Limiting and Relief Device - Inspection, Testing, Preventive and Corrective Maintenance (Relief Devices)
91	0431	Pneumatic Loaded Pressure Limiting and Relief Device - Inspection, Testing, Preventive and Corrective Maintenance (Pressure Limiting Devices)
92	0431	Pneumatic Loaded Pressure Limiting and Relief Device - Inspection, Testing, Preventive and Corrective Maintenance (Relief Devices)
93	0581	Pressure Test - Liquid Medium
94	0591	Leak Test at Operating Pressure
95	0641	Visually Inspect Pipe and Components Prior To Installation
96	0821	Tubing & Fitting Installation - Instrument, Control and Sampling
97	0871	Installation of Steel Pipe in a Bore
98	0881	Installation of Steel Pipe Plowing/Pull-In
99	0901	Installation of Plastic Pipe in a Ditch
100	0911	Installation of Plastic Pipe in a Bore
101	0921	Installation of Plastic Pipe Plowing/Pull-In
102	0931	Installation of Plastic Pipe by Plowing/Planting
103	0981	Backfilling
104	1001	Coating Application and Repair - Sprayed
105	1011	External Coating Application and Repair - Wrapped
106	1021	Apply or Repair Internal Coating Other Than by Brushing, Rolling or Spraying
107	1071	Repair of Steel Pipe by Grinding *
108	1071	Repair of Steel Pipe by Grinding *
109	1271	Mobile Gas Leakage Survey - Flame Ionization *
110	1271	Mobile Gas Leakage Survey - Flame Ionization *
111	1281	Mobile Gas Leakage Survey - Optical Methane *

Count	Task #	Expanded List of Operator Qualification Tasks
112	1281	Mobile Gas Leakage Survey - Optical Methane *
113	1321	Damage Prevention During Excavation Activities by or on Behalf of The Operator
114	1411	Indirect Inspection Techniques (This is a broad scoped task that fits multiple So Cal tasks.)*
115	1411	Indirect Inspection Techniques (This is a broad scoped task that fits multiple So Cal tasks.)*
116	1411	Indirect Inspection Techniques (This is a broad scoped task that fits multiple So Cal tasks.)*
117	1411	Indirect Inspection Techniques (This is a broad scoped task that fits multiple So Cal tasks.)*
118	1411	Indirect Inspection Techniques (This is a broad scoped task that fits multiple So Cal tasks.)*
119	1421	Direct Examination Techniques (This is a broad scoped task that fits multiple So Cal tasks.)*
120	1421	Direct Examination Techniques (This is a broad scoped task that fits multiple So Cal tasks.)*
121	1421	Direct Examination Techniques (This is a broad scoped task that fits multiple So Cal tasks.)*
122	1421	Direct Examination Techniques (This is a broad scoped task that fits multiple So Cal tasks.)*
123	1421	Direct Examination Techniques (This is a broad scoped task that fits multiple So Cal tasks.)*
124	1421	Direct Examination Techniques (This is a broad scoped task that fits multiple So Cal tasks.)*
125	9.6	9.6 - Above-Ground Leakage Classification

* Please note that while this task number and name are listed more than once, it is not duplicative. It refers to a separate initial training / qualification.

ORA DATA REQUEST
ORA-SCG-DR-087-DAO
SOCALGAS 2016 GRC – A.14-11-004
SOCALGAS RESPONSE
DATE RECEIVED: MARCH 2, 2015
DATE RESPONDED: MARCH 18, 2015

3. In reference to page 71 of the Field Support workpapers, please provide the following:
    a. A copy of all calculations, analyses and any and all documents relied on to develop the number of hours of training for 2014-2016, ("5,168", "35,785", and 36,062") as shown on page 71 of the workpapers.
    b. A copy of all calculations, analyses, and any and all documents relied on to develop the "Weighted Average Overtime Rate" for Field Support, M&R, and CP as shown on page 71 of the workpapers.
    c. What is the "Yearly Hour Factor" and how did SoCalGas come up with 2088? Please provide a copy of all supporting documents and calculations used.
    d. Referring to the number of FTEs requested, please provide the justification for 17.3 FTEs and list the tasks that each of the FTEs will be performing.
    e. In the same format as presented on page 71 of the workpapers, please provide the number of Operator Qualification hours and annual labor expense incurred for each year from 2009-2014.

SoCalGas Response:

a. The requested calculations can be found in the separately provided file titled ORA-SCG-DR-087-DAO_Q3a.xlsx.

   Please refer to the response to Question 2c. above for information on the ASME B31Q standard and the tasks used in these calculation.

Responses to remaining question(s) omitted for convenience.

Attachment "ORA-SCG-DR-087-DAO-Q3a.xlsx"

ORA-SCG-DR-087-DAO, Question 3.a.
Field Employee Operator Qualification Hours

Estimated Completion Year	Task #	Gas Distribution Task List	Hours to Train &/or OQ Employee on Task	Gas Distribution Employees Affected					Total Incremental Hours				
				Field Support			CP	M&R	Field Support			CP	M&R
				CT	ETD	LCT			CT	ETD	LCT		
2014	/0581	Strength testing (B31Q-Pressure Test Liquid Medium)	24			17			-	-	408	-	-
2014	3.3/0561	3.3 Test requirements for steel and P.E. plastic service lines and mains to operate below 100 p.s.i. (B31Q-Pressure Test: Nonliquid Medium - MAOP Less Than 100 psi)	1	289	176	239			289	176	239	-	-
2014	3.4/0571	3.4 Test requirements pipelines to operate at/or above 100 p.s.i. to hoop stress above 30 percent of SMYS (B31Q-Pressure Test: Nonliquid Medium - MAOP Greater Than or Equal to 100 psi)	4	6	37	267			24	148	1,068	-	-
2014	9.6/	9.6 - Above-Ground Leakage Classification	4	289	176	239	71	101	1,156	704	956	284	404
2014 Total Hours									1,469	1,028	2,671	284	404
									5,168				
2015	/0721	(B31Q-Joining of Pipe - Threaded Joints)	2	289	176	239			578	352	478	-	-
2015	/0731	(B31Q-Joining of Pipe - Flange Assembly	2			239			-	-	478	-	-
2015	/0891	(B31Q-Field Bending of Steel Pipe)	4	6	37	249			24	148	996	-	-
2015	/0941	(B31Q-Install Tracer Wire)	2	289	176	239			578	352	478	-	-
2015	/0961	(B31Q-Above Ground Supports and Anchors - Inspection, Preventatve and Corrective Maintenance)	2	289	176	239			578	352	478	-	-
2015	/0971	(B31Q-Installation and Maintenance of Casing Spacers, Vents and Seals)	4	289	176	239			1,156	704	956	-	-
2015	/1041	(B31Q-Install Mechanical Clamps and Sleeves - Bolted	2	289	176	239			578	352	478	-	-
2015	/1161	(B31Q-Installation of Customer Meters and Regulators - Residential and Small Commercial)	2	289	176	239			578	352	478	-	-
2015	/1171	(B31Q-Installing Customer Meters - Large Commercial and Industrial)	2					101	-	-	-	-	202
2015	/1631	ILI - Launching and/or Receiving without Launcher (B31Q-Launching and/or Receiving Internal Devices (Pigs) Without Launcher and/or Receiver for Lines Out of Service	2			239			-	-	478	-	-
2015	/1641	ILI - Launching and/or Receiving with Launcher (B31Q-Launching and/or Receiving Internal Devices (Pigs) for Lines In-Service	3			239			-	-	717	-	-
2015	1.10/0681	Plastic pipe joining and inspection: Mechanical joint. (B31Q-Joining of Plastic Pipe - Stab Fittings)	4	256	145	233			1,024	580	932	-	-
2015	1.12/0751	Plastic pipe joining and inspection: 2", 3", and 4" manual machine plastic butt heat-fusion joints. (B31Q-Joining of Plastic Pipe - Butt Heat Fusion: Manual)	4		12	174			-	48	696	-	-
2015	1.14/0761	Plastic pipe joining and inspection: 4", 6", and 8" manual machine plastic butt heat-fusion joints. (B31Q-Joining of Plastic Pipe - Butt Heat Fusion: Hydraulic Machine)	4		2	86			-	8	344	-	-
2015	1.16/0771	Plastic pipe joining and inspection: Sidewall heat-fusion 2"-6". (B31Q-Joining of Plastic Pipe - Sidewall Heat Fusion)	4	256	145	233			1,024	580	932	-	-
2015	1.18/0771	Plastic pipe joining and inspection: Sidewall heat-fusion 6"-8". (B31Q-Joining of Plastic Pipe - Sidewall Heat Fusion)	4		2	86			-	8	344	-	-
2015	1.20/0781	Plastic pipe joining and inspection: Electrofusion joint. (B31Q-Joining of Plastic Pipe - Electrofusion)	4		14	188			-	56	752	-	-
2015	1.22/0791	Plastic pipe joining and inspection: Socket fitting heat-fusions. (B31Q-Joining of Plastic Pipe - Socket Heat Fusion)	8	256	145	233			2,048	1,160	1,864	-	-
2015	1.4/0801	1.4 Making permanent field repair of damages, leaks and joints on mains and services. (B31Q-Welding)	8	6	37	267			48	296	2,136	-	-
2015	1001	Coating Application and Repair - Sprayed	2	289	176	239	71	101	578	352	478	142	202
2015	1011	External Coating Application and Repair - Wrapped	2	289	176	239	71	101	578	352	478	142	202
2015	2.2/0991	Coating Application and Repair - Brushed or Rolled	2	289	176	239	71	101	578	352	478	142	202
2015	6.7/1141	6.7 - Squeezing Pressurized PE Plastic Pipelines. (B31Q-Squeeze Off Plastic Pipe)	4	289	176	239			1,156	704	956	-	-
2015	6.8/1151	6.8 - Squeezing Pressurized Steel Pipelines. (B31Q-Squeeze Off Steel Pipe)	4	6	37	249			24	148	996	-	-
2015 Total Hours									11,128	7,256	17,401	426	808
									35,785				

ORA-SCG-DR-087-DAO, Question 3.a.
Field Employee Operator Qualification Hours

Estimated Completion Year	Task #	Gas Distribution Task List	Hours to Train &/or OQ Employee on Task	Gas Distribution Employees Affected					Total Incremental Hours				
				Field Support			CP	M&R	Field Support			CP	M&R
				CT	ETD	LCT			CT	ETD	LCT		
2016	/0641	Inspection of material (B31Q-Visually Inspect Pipe and Components Prior to Installation)	2	289	176	239	71	101	578	352	478	142	202
2016	0011	Conduct Close Interval Survey	2				71		-	-	-	142	-
2016	0021	Measure Soil Resistivity	2				71		-	-	-	142	-
2016	0031	Inspect And Monitor Galvanic Ground Beds/Anodes	2				71		-	-	-	142	-
2016	0061	Task Inspect or Test Cathodic Protection Bonds	2				71		-	-	-	142	-
2016	0111	Maintain Rectifier	2				71		-	-	-	142	-
2016	0171	Task Measure External Corrosion	2	289	176	239	71		578	352	478	142	-
2016	0181	Measure Internal Corrosion	2	289	176	239			578	352	478	-	-
2016	0191	Measure Atmospheric Corrosion	2	289	176	239	71	101	578	352	478	142	202
2016	0641	Visually Inspect Pipe and Components Prior To Installation	2	289	176	239			578	352	478	-	-
2016	0871	Installation of Steel Pipe in a Bore	2	289	176	239			578	352	478	-	-
2016	0881	Installation of Steel Pipe Plowing/Pull-In	2	289	176	239			578	352	478	-	-
2016	0901	Installation of Plastic Pipe in a Ditch	2	289	176	239			578	352	478	-	-
2016	0911	Installation of Plastic Pipe in a Bore	2	289	176	239			578	352	478	-	-
2016	0921	Installation of Plastic Pipe Plowing/Pull-In	2	289	176	239			578	352	478	-	-
2016	0931	Installation of Plastic Pipe by Plowing/Planting	2	289	176	239			578	352	478	-	-
2016	0981	Backfilling	2	289	176	239			578	352	478	-	-
2016	1.1/0861	Installation of Steel Pipe in a Ditch	2	289	176	239			578	352	478	-	-
2016	1021	Apply or Repair Internal Coating Other Than by Brushing, Rolling or Spraying	2	289	176	239	71	101	578	352	478	142	202
2016	1411	Indirect Inspection Techniques (This is a broad scoped task that fits multiple So Cal tasks.)	2				71		-	-	-	142	-
2016	1411	Indirect Inspection Techniques (This is a broad scoped task that fits multiple So Cal tasks.)	2				71		-	-	-	142	-
2016	1411	Indirect Inspection Techniques (This is a broad scoped task that fits multiple So Cal tasks.)	2				71		-	-	-	142	-
2016	1411	Indirect Inspection Techniques (This is a broad scoped task that fits multiple So Cal tasks.)	2				71		-	-	-	142	-
2016	1411	Indirect Inspection Techniques (This is a broad scoped task that fits multiple So Cal tasks.)	2				71		-	-	-	142	-
2016	1421	Direct Examination Techniques (This is a broad scoped task that fits multiple So Cal tasks.)	2	289	176	239	71		578	352	478	142	-
2016	1421	Direct Examination Techniques (This is a broad scoped task that fits multiple So Cal tasks.)	2	289	176	239	71	101	578	352	478	142	202
2016	1421	Direct Examination Techniques (This is a broad scoped task that fits multiple So Cal tasks.)	2	289	176	239			578	352	478	-	-
2016	1421	Direct Examination Techniques (This is a broad scoped task that fits multiple So Cal tasks.)	2	289	176	239	71	101	578	352	478	142	202
2016	2.1/0151	Task Visual Inspection of Buried Pipe and Components When Exposed	2	289	176	239	71		578	352	478	142	-
2016	2.10/0091	Troubleshoot in-Service Cathodic Protection System	2				71		-	-	-	142	-
2016	2.11/0161	Task Visual Inspection for Internal Corrosion	2	289	176	239			578	352	478	-	-
2016	2.13/0141	Visual Inspection For Atmospheric Corrosion	2	289	176	239	71	101	578	352	478	142	202
2016	2.3/0001	Measure Structure-To-Electrolyte Potential	2				71		-	-	-	142	-
2016	2.4/0101	Inspect Rectifier And Obtain Readings	2				71		-	-	-	142	-
2016	2.5/0071	Inspect or Test Cathodic Protection Electrical Isolation Devices	2				71		-	-	-	142	-
2016	2.7/0081	Install Cathodic Protection Electrical Isolation Devices	2				71		-	-	-	142	-
2016	6.3/1081	6.3 - Tapping a Presserized Plastic pipeline 2" and less (B31Q-Tapping a Pipeline (Tap Diameter 2 in. and Less)	4	113	11	232			452	44	928	-	-
2016	6.4/1091	6.4 - Tapping a Presserized Plastic pipeline greater than 2" (B31Q-Tapping a Pipeline (Tap Diameter Greater Than 2 in)	4	113	11	232			452	44	928	-	-
2016	6.5/1081	6.5 - Tapping a Presserized Steel pipeline 2" and less (B31Q-Tapping a Pipeline (Tap Diameter 2 in. and Less)	6	289					1,734	-	-	-	-
2016	6.6/1091	6.6 - Tapping a Presserized Steel pipeline greater than 2" (B31Q-Tapping a Pipeline (Tap Diameter Greater Than 2 in.)	8			239			-	-	1,912	-	-
2016 Total Hours									14,776	7,480	13,806	3,408	1,212
									36,062				

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4. Did SDG&E or SoCalGas include in its recorded base year 2013 costs any expense associated with meetings, meals, event sponsorships, or similar costs payable to any chambers of commerce, that were not adjusted out for purposes of developing the test year 2019 forecasts? If so, for each utility please identify the total amount of chamber of commerce payments recorded in 2013 and not adjusted out of the forecast for 2016. Identify each account in which these ratepayer-funded costs may be found and the amounts in each account.

Utility Amended Response:

The Utilities assume that when the question asks for test year 2019 forecasts, the question intended to ask for ***2016*** forecast. We are providing these answers according to that assumption.

SoCalGas Amended Response:

Subsequent to providing TURN with the initial response on May 12th, additional items were identified. Given the increase in the amount of items subsequently identified, SoCalGas is attaching an excel spreadsheet in lieu of pasting the information in this response document. Please reference the attached file: "TURN-SEU-DR-04 Amended Q4 SCG Attachment.xls". Furthermore, SoCalGas needs to delete/correct the following paragraph which was included in the initial response:

> *While preparing a response to this Data Request, SoCalGas discovered that it had inadvertently included the foregoing expenses (total = $2,750) in the Test-Year 2016 forecast. Thus, in SoCalGas' Rebuttal testimony, these particular expenses will be removed from the 2016 forecast and the total request for 2016 will be adjusted accordingly.*

Upon further investigation, this explanation does not apply to SoCalGas costs reflected in the attached spreadsheet in response to this data request. The costs recorded in the attached spreadsheet do not represent inadvertent inclusions. Thus, they should not be removed from the base year recorded (2013) and test year 2016 forecast, as the initial response claimed.

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Amended Response to Question 4 (Continued)

SDG&E Amended Response:

Subsequent to providing TURN with the initial response on May 12th, additional items were identified. See table below.

(2013$'s as shown)

Cost Center	WP Group	Cost Element	C/E Description	Internal Order	Amount	Vendor
2100-4027	1OO008	6220812	SRV-BUS & CIVIC MTGS	ORD 7062720	$500	VALLEY CENTER CHAMBER OF COMMERCE
2100-3463	1ED022	6220813	SRV-SPNSR BUS & CVC	ORD FC9210002100	$1,000	SAN MARCOS CHAMBER OF COMMERCE
2100-3626	1HR009	6220812	SRV-BUS & CIVIC MTGS	ORD FC9210002100	$500	SAN DIEGO REGIONAL CHAMBER OF
2100-3626	1HR009	6220812	SRV-BUS & CIVIC MTGS	ORD FC9210002100	$395	SAN DIEGO REGIONAL CHAMBER OF
2100-3626	1HR009	6220812	SRV-BUS & CIVIC MTGS	ORD FC9210002100	$60,000	SAN DIEGO REGIONAL CHAMBER OF
2100-3463	1ED022	6220812	SRV-BUS & CIVIC MTGS	ORD FC9210002100	$550	ENCINITAS CHAMBER OF COMMERCE
2100-3592	1ED022	6220812	SRV-BUS & CIVIC MTGS	ORD FC9210002100	$1,490	SAN DIEGO REGIONAL CHAMBER OF
2100-3463	1ED022	6220812	SRV-BUS & CIVIC MTGS	ORD FC9210002100	$1,000	SAN MARCOS CHAMBER OF COMMERCE
2100-3463	1ED022	6220812	SRV-BUS & CIVIC MTGS	ORD FC9210002100	$1,000	SAN DIEGO NORTH CHAMBER OF
2100-3463	1ED022	6220813	SRV-SPNSR BUS & CVC	ORD FC9210002100	$5,000	SAN DIEGO REGIONAL CHAMBER OF
2100-3592	1ED022	6220590	SRV-MISCELLANEOUS	ORD FC9210002100	$350	SAN CLEMENTE CHAMBER OF COMMERCE
			SDG&E Witness Area	**TOTAL SDG&E**	**$71,785**	
			SDG&E-14 Baugh	1OO008	$500	
			SDG&E-10 Woldermarian	1ED022	$10,390	
			SDG&E-24 Edgar	1HR009	$60,895	

Furthermore, as with the SoCalGas initial response, SDG&E needs to modify/correct the following paragraph:

> *While preparing a response to this Data Request, SDG&E discovered that it had inadvertently included the foregoing expenses (total = $6,350) in the Test-Year 2016 forecast. Thus, in SDG&E's Rebuttal testimony, these particular expenses will be removed from the 2016 forecast and the total request for 2016 will be adjusted accordingly.*

Upon further investigation, this explanation only applies to the newly identified cost item highlighted above. The line item charged to cost center 2100-3626 for $60,000 should have been excluded from the base year 2013 and TY2016 expenses, since it was for annual dues, as shown in the attached invoice "TURN-SEU-DR-04 Amended Q4_SD Chamber of Commerce Dues.pdf". Employee names have been redacted from the attached invoice. All other costs reflected in the table above are costs that should not be removed from the base year recorded and test year forecast.

Attachment "TURN-SEU-DR-04 Amended Q4 SCG Attachment.xls"

TURN-SEU-DR-04 Q4 SCG Amended Response.xls

Cost Center	WP Group	Cost Element	C/E Description	Internal Order	Amount	Vendor
2200-0805	2GD005	6220812	SRV-BUS & CIVIC MTGS	ORD FG9080002200	$500	YORBA LINDA CHAMBER OF COMMERC
2200-0805	2GD005	6220812	SRV-BUS & CIVIC MTGS	ORD FG9080002200	$750	GARDEN GROVE CHAMBER OF COMMER
2200-0805	2GD005	6220812	SRV-BUS & CIVIC MTGS	ORD FG9080002200	$200	FOUNTAIN VALLEY CHAMBER OF COMMERCE
2200-0805	2GD005	6220812	SRV-BUS & CIVIC MTGS	ORD FG9080002200	$750	IRVINE CHAMBER OF COMMERCE
2200-0805	2GD005	6220812	SRV-BUS & CIVIC MTGS	ORD FG9080002200	$350	BUENA PARK CHAMBER OF COMMERCE
2200-0805	2GD005	6220812	SRV-BUS & CIVIC MTGS	ORD FG9215702200	$275	WHITTIER CHAMBER OF COMMERCE
2200-0805	2GD005	6220812	SRV-BUS & CIVIC MTGS	ORD FG9215702200	$300	YORBA LINDA CHAMBER OF COMMERC
2200-0805	2GD005	6220812	SRV-BUS & CIVIC MTGS	ORD FG9215702200	$1,000	HUNTINGTON BEACH CHAMBER OF
2200-0805	2GD005	6220812	SRV-BUS & CIVIC MTGS	ORD FG9215702200	$350	Los Alamitos Chamber of Commerce
2200-0805	2GD005	6220812	SRV-BUS & CIVIC MTGS	ORD FG9215702200	$350	WESTMINSTER CHAMBER OF COMMERC
2200-0805	2GD005	6220812	SRV-BUS & CIVIC MTGS	ORD FG9215702200	$500	CHINO CHAMBER OF COMMERCE
2200-0805	2GD005	6220812	SRV-BUS & CIVIC MTGS	ORD FG9215702200	$1,000	CHINO CHAMBER OF COMMERCE
2200-0805	2GD005	6220812	SRV-BUS & CIVIC MTGS	ORD FG9215702200	$1,000	FULLERTON CHAMBER OF COMMERCE
2200-0805	2GD005	6220812	SRV-BUS & CIVIC MTGS	ORD FG9215702200	$500	FULLERTON CHAMBER OF COMMERCE
2200-0805	2GD005	6220812	SRV-BUS & CIVIC MTGS	ORD FG9215702200	$400	CHAMBER OF COMMERCE - CERRITOS
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9080002200	($500)	PLACENTIA CHAMBER OF COMMERCE
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9080002200	$150	ALISO VIEJO CHAMBER OF COMMERCE
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9080002200	$500	CHINO CHAMBER OF COMMERCE
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9080002200	$1,500	ANAHEIM CHAMBER OF COMMERCE
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9080002200	$2,750	ORANGE CHAMBER OF COMMERCE
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9080002200	$1,000	CHAMBER OF COMMERCE - SANTA ANA
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9080002200	$1,500	LA HABRA AREA CHAMBER OF COMMERCE
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9080002200	$500	LAGUNA NIGUEL CHAMBER
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9080002200	$350	BUENA PARK CHAMBER OF COMMERCE
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9080002200	$1,320	DANA POINT CHAMBER OF COMMERCE
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9080002200	$66	FULLERTON CHAMBER OF COMMERCE
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9080002200	$800	FULLERTON CHAMBER OF COMMERCE
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9080002200	$500	CHAMBER OF COMMERCE - BREA
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9080002200	$200	CHAMBER OF COMMERCE - BELLFLOWER
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9080002200	$175	WESTMINSTER CHAMBER OF COMMERC
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9082652200	$1,000	YORBA LINDA CHAMBER OF COMMERC
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9082652200	$2,500	CHAMBER OF COMMERCE - SANTA ANA
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9082652200	$2,500	CHAMBER OF COMMERCE - BREA
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9082652200	$1,500	DANA POINT CHAMBER OF COMMERCE
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9082652200	$900	REGIONAL CHAMBER OF COMMERCE
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9082652200	$1,000	SAN CLEMENTE CHAMBER OF COMMERCE
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9082652200	$1,000	TUSTIN CHAMBER OF COMMERCE
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9082652200	$500	CHINO CHAMBER OF COMMERCE
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9082652200	$400	REGIONAL CHAMBER OF COMMERCE
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9215702200	($1,000)	SAN CLEMENTE CHAMBER OF COMMERCE
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9215702200	($1,000)	SAN CLEMENTE CHAMBER OF COMMERCE
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9215702200	($1,000)	SAN CLEMENTE CHAMBER OF COMMERCE
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9215702200	$500	SAN JUAN CAPISTRANO CHAMBER OF
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9215702200	$1,250	CYPRESS CHAMBER OF COMMERCE
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9215702200	$1,140	IRVINE CHAMBER OF COMMERCE
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9215702200	$1,000	SAN CLEMENTE CHAMBER OF COMMERCE
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9215702200	$1,000	SAN CLEMENTE CHAMBER OF COMMERCE
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9215702200	$1,000	SAN JUAN CAPISTRANO CHAMBER OF
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9215702200	$1,000	SAN CLEMENTE CHAMBER OF COMMERCE
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9215702200	$1,500	CHAMBER OF COMMERCE - BREA
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9215702200	$1,000	YORBA LINDA CHAMBER OF COMMERC
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9215702200	$250	CHAMBER OF COMMERCE - CERRITOS
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9215702200	$1,000	CHAMBER OF COMMERCE - SANTA ANA
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9215702200	$1,000	SAN CLEMENTE CHAMBER OF COMMERCE
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9215702200	$2,700	HUNTINGTON BEACH CHAMBER OF
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9215702200	$1,500	FOUNTAIN VALLEY CHAMBER OF COMMERCE
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9215702200	$1,000	SAN CLEMENTE CHAMBER OF COMMERCE
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9215702200	$5,000	IRVINE CHAMBER OF COMMERCE
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9215702200	$4,000	YORBA LINDA CHAMBER OF COMMERC
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9215702200	$4,700	CHAMBER OF COMMERCE - SANTA ANA

Cost Center	WP Group	Cost Element	C/E Description	Internal Order	Amount	Vendor
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9215702200	$3,500	FULLERTON CHAMBER OF COMMERCE
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9215702200	$3,000	NEWPORT BEACH CHAMBER OF COMM
2200-0805	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9215702200	$1,500	LAGUNA BEACH CHAMBER OF COMMERCE
2200-0805	2GD005	6230681	SRV-EV & TKT-CHGBK	ORD FG9215702200	$750	LAGUNA BEACH CHAMBER OF COMMERCE
2200-0811	2GD005	6220812	SRV-BUS & CIVIC MTGS	ORD FG9205702200	$1,000	SOUTH GATE CHAMBER OF COMMERCE
2200-0811	2GD005	6220812	SRV-BUS & CIVIC MTGS	ORD FG9215702200	$270	MONTEBELLO CHAMBER OF COMMERCE
2200-0811	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9215702200	$500	HAWTHORNE CHAMBER OF COMMERCE
2200-0811	2GD005	6230680	SRV-EVENT & TICKETS	ORD FG9205702200	$1,000	REGIONAL BLACK CHAMBER OF COMM
2200-0811	2GD005	6230680	SRV-EVENT & TICKETS	ORD FG9205702200	$1,000	REGIONAL BLACK CHAMBER OF COMM
2200-0825	2GD005	6220812	SRV-BUS & CIVIC MTGS	ORD FG9215702200	$75	SANTA BARBARA CHAMBER OF COMMERCE
2200-0825	2GD005	6220812	SRV-BUS & CIVIC MTGS	ORD FG9215702200	$175	GLENDALE CHAMBER OF COMMERCE
2200-0825	2GD005	6220812	SRV-BUS & CIVIC MTGS	ORD FG9215702200	$480	VISALIA CHAMBER OF COMMERCE
2200-0825	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9205702200	$1,000	CHAMBER OF COMMERCE - BURBANK
2200-0825	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9215702200	$3,500	GREATER BAKERSFIELD CHAMBER OF COMM
2200-0825	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9215702200	$1,000	SANTA CLARITA CHAMBER OF COMMERCE
2200-0825	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9215702200	$2,500	CHAMBER OF COMMERCE - TULARE-KINGS
2200-0825	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9215702200	$1,600	GREATER BAKERSFIELD CHAMBER OF COMM
2200-0825	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9215702200	$2,000	GREATER BAKERSFIELD CHAMBER OF COMM
2200-0825	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9215702200	$5,000	KINGSBURG CHAMBER OF COMMERCE
2200-0825	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9215702200	$3,000	CHAMBER OF COMMERCE - OXNARD
2200-0825	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9215702200	$2,500	SELMA DISTRICT CHAMBER OF COMMERCE
2200-0825	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9215702200	$500	NORTH OF THE RIVER CHAMBER OF COMM
2200-0825	2GD005	6220813	SRV-SPNSR BUS & CVC	ORD FG9215702200	$4,000	GREATER BAKERSFIELD CHAMBER OF COMM
2200-2059	2RD001.001	6220813	SRV-SPNSR BUS & CVC	ORD FG9080002200	$1,000	THE SWEDISH AMERICAN CHAMBER OF

SCG Witness Area	TOTAL SCG	$98,726
SCG-04 Ayala	2GD005	$97,726
SCG-13 Reed	2RD001.001	$1,000
		$98,726

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9. Please identify the cost of any clothing or other items (e.g., pens, knives, flashlights, etc.) containing the name and logo of Sempra Energy, SDG&E, or SoCalGas included in the recorded costs for the 2013 base year and not adjusted out of or otherwise removed in the development of the forecast for the 2016 test year. Please state the amount of such costs by exhibit provided in the GRC filing and Sempra account. For any costs from corporate center, identify the total cost and the costs assigned to SDG&E and SoCal. For each individual item where more than $5,000 is allocated to the Sempra Energy Utilities, provide invoices or vouchers. Exclude uniforms or gear worn or used by employees in the field (e.g., hard hats).

Utility Response:

SoCalGas/SDG&E made a good faith effort to identify expenses for company logo items across the utilities' business units that could have incurred these types of expenses. The SoCalGas/SDG&E accounting system does not indicate whether 2013 expenses for clothing or other items contain the name and logo of Sempra Energy, SDG&E, or SoCalGas. For example, these expenses may be categorized as promotional items, safety event items, materials, services, etc. Please see attached file: "TURN-SEU-DR-04 Q9 Attachment.xlsx."

There are no such costs incurred at Sempra Corporate Center that are included in allocations to SDG&E or SoCalGas in 2013, nor are there any in the forecasted test year 2016 allocations.

Attachment "TURN-SEU-DR-04 Q9 Attachment.xlsx," Tab "SCG"

TURN-SEU-DR-04 Q9 Attachment.xlsx

Exhibit No.	Witness Name	GRC Witness Area	2013 Expenses
SCG-04-R	F. Ayala	GAS DISTRIBUTION	$59,026
SCG-05	B. Musich	GAS TRANSMISSION	$1,079
SCG-06	P. Baker	SOCALGAS UNDERGROUND STORAGE	$0
SCG-07	R. Stanford	ENGINEERING	$33,394
SCG-08	M. Martinez	TIMP & DIMP	$0
SCG-09	I. Chang	PROCUREMENT	$0
SCG-10	S. Franke	CS - FIELD & METER READING	$1,399
SCG-11	E. Goldman	CS - OFFICE OPERATIONS	$694
SCG-12-R	A. Ayres	CS - INFORMATION	$68,479
SCG-13-R	J. Reed	CS - TECHNOLOGIES (RD&D)	$1,756
SCG-14	R. Hobbs	SUPPLY SERVICES & DIVERSE BUSINESS ENTERPRISES	$30,786
SCG-15	C. Herrera	FLEET, REAL ESTATE, LAND & FACILITIES	$4,386
SCG-17-R	J. Tracy	ENVIRONMENTAL	$1,806
SCG-18-R	C. Olmsted	INFORMATION TECHNOLOGY	$0
SCG-21	D. Robinson	COMPENSATION & BENEFITS	$233,160
SCG-23-R	M. Serrano	HUMAN RESOURCES, DISABILITY, WORKERS COMP & SAFETY	$0
SCG-24-R	R. Gonzales	A&G - CONTROLLER/FINANCE/REGULATORY AFFAIRS/LEGAL/EXT AFF	$7,433
		TOTAL SoCalGas	$443,397

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DATE RECEIVED: APRIL 16, 2015
DATE RESPONDED: MAY 6, 2015

10. Please identify the cost of any tickets to sporting, cultural, or musical events included in the recorded costs for the 2013 base year and not adjusted out of or otherwise removed in the development of the forecast for the 2015 test year. For each such item, please state the amount of such costs by exhibit provided in the GRC filing and Sempra account. For any costs from corporate center, identify the total cost and the costs assigned to SDG&E and SoCalGas. For each individual item where more than $1,000 is allocated to the Sempra Energy Utilities, provide invoices or vouchers. Explain why the costs of the tickets should be charged to ratepayers.

Utility Response:

SoCalGas/SDG&E made a good faith effort to identify expenses for tickets to sporting, cultural, or musical events included in the 2013 base year and not adjusted out or otherwise removed in the development of the forecast for the 2016 test year across the utilities' business units that could have incurred these types of expenses. Events tickets are used for developing and maintaining business relationships with customers and key stakeholders that the company deals with to more effectively conduct its business. Events tickets likewise serve a valid business purpose to the extent they are used to recognize and reward employee achievements and efforts, as well as to promote teamwork. Please see attached file: "TURN-SEU-DR-04 Q10 Attachment.xlsx.

There are no such costs incurred at Sempra Corporate Center that are included in allocations to SDG&E or SoCal Gas in 2013, nor are there any in the forecasted test year 2016 allocations.

Attachment "TURN-SEU-DR-04 Q10 Attachment.xlsx," Tab "SCG"

TURN-SEU-DR-04 Q10 Attachment.xlsx

Exhibit No.	Witness Name	GRC Witness Area	2013 Expenses
SCG-04-R	F. Ayala	GAS DISTRIBUTION	$13,802
SCG-05	B. Musich	GAS TRANSMISSION	$0
SCG-06	P. Baker	SOCALGAS UNDERGROUND STORAGE	$0
SCG-07	R. Stanford	ENGINEERING	$0
SCG-08	M. Martinez	TIMP & DIMP	$0
SCG-09	I. Chang	PROCUREMENT	$7,518
SCG-10	S. Franke	CS - FIELD & METER READING	$2,179
SCG-11	E. Goldman	CS - OFFICE OPERATIONS	$0
SCG-12-R	A. Ayres	CS - INFORMATION	$53,008
SCG-13-R	J. Reed	CS - TECHNOLOGIES (RD&D)	$0
SCG-14	R. Hobbs	SUPPLY SERVICES & DIVERSE BUSINESS ENTERPRISES	$0
SCG-15	C. Herrera	FLEET, REAL ESTATE, LAND & FACILITIES	$0
SCG-17-R	J. Tracy	ENVIRONMENTAL	$0
SCG-18-R	C. Olmsted	INFORMATION TECHNOLOGY	$5,572
SCG-21	D. Robinson	COMPENSATION & BENEFITS	$0
SCG-23-R	M. Serrano	HUMAN RESOURCES, DISABILITY, WORKERS COMP & SAFETY	$480
SCG-24-R	R. Gonzales	A&G - CONTROLLER/FINANCE/REGULATORY AFFAIRS/LEGAL/EXT AFF	$55,545
		TOTAL SoCalGas	$138,104

TURN DATA REQUEST
TURN-SCG-DR-17
SOCALGAS 2016 GRC – A.14-11-004
SOCALGAS RESPONSE
DATE RECEIVED: MAY 4, 2015
DATE RESPONDED: MAY 8, 2015

2. In SoCalGas Exh. 04, p. 99, the discussion of Distribution Main Replacement refers to the factors that result in main replacements under that program, including leakage, anticipated leakage maintenance expense, cost of installing or maintaining cathodic protection, condition of material or wrap/coating, or corrosion or other defect. These factors are used by technical staff to "identif[y] and prioritiz[e] pipeline segments requiring replacement." In SoCalGas' response to TURN DR 07-7b, the factors used to identify and prioritize replacements under DREAMS are similar.

    a. Please explain how SoCalGas' technical staff prioritizes pipeline segments requiring replacement as set forth in Main Replacements (Exh. 04). Pl
    b. Please explain how SoCalGas prioritizes pipeline segments requiring replacement through the DREAMS effort.
    c. Please identify and briefly describe any material difference between how SoCalGas prioritizes pipeline segments identified as requiring replacement through Main Replacements as compared to pipeline segments identified as requiring replacement through DREAMS.
    d. Please briefly describe how SoCalGas coordinates the two programs, to insure that the highest risk pipe is given priority for replacement. Please be as detailed as necessary.

SoCalGas Response 2:

a. The category of "Main Replacement" as presented within Exhibit SCG-04-R – Gas Distribution, addresses the routine main replacement activities that the operating regions face on a daily basis. Reaction to specific local situational information drives the need for "routine" main replacement. This situational information is described on page FBA-99 of Exhibit SCG-04-R:

> *These replacements are often due to leakage that impacts the integrity of the pipe, an anticipated increase in leakage maintenance expenses, the relative cost to install and/or maintain cathodic protection, or the deterioration of pipe material, pipe wrap, or coating. Other criteria taken into consideration are whether the steel pipe meets cathodic protection mandates, or the main is found to have active corrosion. In addition, the pipeline may be deemed unsafe or unfit for service due to manufacturing or other defects. Based on information collected during various O&M activities and field observations, technical staff identifies and prioritizes pipeline segments requiring replacement.*

SoCalGas Response to Question 2a. (Continued):

Some additional examples include the following:

- Replacement of steel pipe with plastic due to a problematic cathodic protection area of ongoing shorts and interference.
- Replacement of pipe found in poor condition during leak repair, where repairs would be difficult due to conditions, and replacement would be more appropriate.
- Acceleration of scheduled pipe replacement ahead of street improvements, while the opportunity arises during a municipal activity, allowing for shared costs and avoiding street moratoriums.

b. Under the DIMP program, a performance based pipe replacement program (DREAMS) has been established utilizing the attributes outlined in the response to TURN-SCG-DR 07, Question 7b. This replacement program is incremental to the routine main replacement activities. It is a systematic evaluation of pipe attributes to prioritize replacement of pipe segments that have not historically performed as well as others. The intent of the program is to prioritize these segments and proactively replace them before additional leakage occurs.

The information provided in TURN-SCG-DR-07, Question 7b is copied below for convenience:

Plastic Algorithm - Probability	
Attribute	**Description**
Historical Failure Trend	Historical Failure Trend factor is a function of the leak rate and the failure type. Failure types include axial failures, rocky soil, and compaction among others
Material Factor	The Material Factor takes into account the vintage of the pipe and the plastic type used for installation.
Construction Factor	The Construction Factor takes into account the soil type and method of installation to show the performance of the pipe segment in different environments and using different installation methods.
Length Normalization Factor	number of leaks per 100 feet of segment length

SoCalGas Response to Question 2.b., (Continued):

Steel Algorithm - Probability	
Pipe Age Factor	Pipe Age factor is a function of the pipe install year with respect to the current year, pipe wrap (external pipe coating) constant, and the number of integrity relevant leaks present on the segment.
Pipe Wrap Factor	Condition of the pipe wrap at the time of the leak repair.
Leakage Factor	The Leakage Factor is a function of the leak year with respect to the current year, condition of the pipe, condition of the Cathodic Protection (CP) on the pipe and the number of integrity relevant leaks.
Pipe Condition Factor	This factor looks at the amount of rust and pitting on the pipe and the condition of the wrap.
Cathodic Protection Factor	The CP factor is a depiction of the presence of cathodic protection on the pipeline.
Consequence	
Line Pressure	Pressure the line is operating at.
Proximity to structures	Proximity to structures are estimated with the assumption that all leaks on above ground MSAs are the closest to structure while leaks on services are medium distance, and leaks on mains are further away. This is based on the fact that, with a few exceptions, MSAs tend to be set up close to the house line and near the structure while services approach the structure as they connect the main to the MSA, and mains are typically found in the streets away from the structure.
Population Density	The Population Density is obtained by looking at county zoning plots.
Pipe Diameter	The consequences of failure on large diameter pipe tend to be higher versus smaller diameter pipes. The pipe sizes are grouped by service, main, high pressure transmission.
Number of Leaks and Common Leak Code	For every segment the number integrity relevant of leaks are counted along with their associated leak codes. The leak code with the highest number of leaks is then determined and used for this factor.
PHMSA Serious Injury Factor	The Pipeline and Hazardous Material Safety Administration (PHMSA) publishes the total number of leaks by cause in Gas Distribution industry wide. One of the published reports is the Serious Incidents and contained in this report is the number of fatalities by cause in the previous 20 years. The percentage for Corrosion, 3.85%, is used for the steel evaluation model while percentage for material defects, 2.45%, is used for the plastic evaluation model.

SoCalGas Response to Question 2, (Continued):

c. The routine main replacements are typically more reactionary in nature and are driven by observed pipeline conditions, such as those described in response to part a, above. The DREAMS program is a systematic evaluation of pipe attributes to identify and prioritize pipe replacement. Please refer to part b for the attributes used in the DREAMS program.

d. The two programs are independent, with different Planning groups who are responsible for their own projects. The project list for the DREAMS Planning group is based on the relative risk evaluation completed as part of DREAMS which allows the group to focus on the highest relative risk pipe independent of routine replacements. Planners working on Gas Distribution Main Replacement work will coordinate with the DREAMS Planning group before initiating new replacement project to avoid overlapping projects.

EDF DATA REQUEST
EDF-SCG-DR-01
SOCALGAS 2016 GRC – A.14-11-004
SOCALGAS RESPONSE
DATE RECEIVED: APRIL 23, 2015
DATE RESPONDED: MAY 7, 2015

3. On page FBA -35 and FBA-41 of Frank Ayala's Revised Testimony, he discusses SCG's plan to eliminate the backlog of leaks by 2018 for service and mains. Do the costs associated with this plan of action include prioritization of the order of repair based on quantification, so that the largest leaks are eliminated first? Please provide an explanation and appropriate documentation of how this plan will be implemented, and if there are other components of the system included in the plan.

SoCalGas Response:

The non-hazardous leak reduction effort has three components in Exhibit SCG-04-R. In addition to the two pages listed in this question, there is an additional capital component. All three components are listed below.

- Pages FBA-35 – FBA-36: Leak Reduction Effort (in the Field O&M – Main Maintenance Category)
- Pages FBA-40 – FBA-41: Leak Reduction Effort (in the Field O&M – Service Maintenance Category)
- Pages FBA-103 – FBA-104: Replacement of Leaking Services (in the Service Replacements Capital Category)

The non-hazardous leak reduction forecast developed in the GRC does not include prioritization of the order of repair. It is based on the backlog of non-hazardous leaks that existed as of the end of 2013, an estimated percentage of leaks to be repaired in each year, and an estimated unit cost per leak repair. The cost estimate of the leak reduction effort can be found in the supplemental workpapers listed below:

- O&M Forecast: Exhibit SCG-04-WP, pages 51 and 60, Supplemental Workpaper SCG-FBA-O&M-SUP-003.
- Capital Forecast: Exhibit SCG-04-CWP-R, page 86, Supplemental Workpaper SCG-FBA-CAP-SUP-004.

The estimated forecast of the number of backlogged non-hazardous leaks to be repaired in each year from 2014 through 2018 can be found in the separately provided file, ORA-SCG-DR-004-DAO_Q3_Tab3.d.vii-viii.xlsx.

SoCalGas Response to Question 3, Continued:

While the GRC cost forecast did not include prioritization of the non-hazardous leaks, the current prioritization process is based on the potential impact to public safety of the leak and therefore, hazardous leaks are repaired immediately. The future prioritization will be consistent with federal and state regulations, including the Order Instituting Rulemaking to Adopt Rules and Procedures Governing Commission-Regulated Natural Gas Pipelines and Facilities to Reduce Natural Gas Leakage Consistent With Senate Bill 1371 (R.15-01-008, Filed January 15, 2015). SB 1371's rules and procedures have yet to be adopted in R.15.01-008. Because the Rulemaking is still gathering information in Phase 1, SoCalGas cannot speculate as to how SB 1371's requirements will be accounted for in its GRC beyond information already provided in testimony, workpapers, and data request responses until the Rulemaking establishes rules and procedures for reduction of methane emissions in Phase 2.

As stated on page FBA-8 of Exhibit SCG-04-R, page FBA-8:

> *Leaks are prioritized for ongoing field response based on a number of factors including location, concentration of gas, and hazard to the public and property.*

SoCalGas' current Gas Standard on Leakage Classification and Mitigation Schedules can be found in the separately provided document titled EFF-SCG-DR-01_Q3_223.0125_CONFIDENTIAL.pdf, which will be delivered in accordance with the Protective Order.

Please treat this document as **PROTECTED MATERIALS, SUBMITTED PURSUANT TO PROTECTIVE ORDER/NDA.**