Company: Southern California Gas Company (U904G)
Proceeding: 2016 General Rate Case
Application: A.14-11-004
Exhibit: SCG-208

SOCALGAS

REBUTTAL TESTIMONY OF MARIA T. MARTINEZ

(PIPELINE INTEGRITY)

June 2015

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

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I. SUMMARY OF DIFFERENCES

TOTAL O&M - Constant 2013 ($000)			
	Base Year 2013	**Test Year 2016**	**Change**
SoCalGas	82,057	97,154	15,097
ORA	82,057	97,154	15,097

TOTAL CAPITAL - Constant 2013 ($000)			
	2014	**2015**	**2016**
SoCalGas	53,042	48,637	125,184
ORA	51,155	48,637	125,184
TURN	53,042	48,637	102,550

II. INTRODUCTION

No party opposes the SoCalGas' 2016 O&M forecasts for costs associated with its Transmission Integrity Management Program (TIMP) and Distribution Management Integrity Program (DIMP) for pipelines.

A. Office of Ratepayer Advocates (ORA)

ORA issued its report on Pipeline Integrity on April 24, 2015.[1] ORA recommends that SoCalGas recover its 2014 recorded capital expenditures for TIMP and DIMP instead of its forecasted expenditures. ORA does not oppose the 2015 and 2016 forecasts.

B. The Utility Reform Network (TURN)

TURN submitted testimony on May 15, 2015.[2] TURN does not oppose SoCalGas' 2014 and 2015 capital forecasts, but recommends (1) a $17.84 million reduction to the 2016 forecast based on the cost-per-mile estimates of the separate Gas Distribution Main Replacement program, and (2) an additional reduction of $4.793 million based on a 10% reduction it believes can be realized from combination with the Gas Distribution and Pipeline Integrity DREAMS efforts.[3] TURN's total proposed reduction is $22.633 million.

[1] Exhibit ORA-11, Report on Pipeline Integrity (K.C. Lee) (full title truncated) (ORA-11).
[2] Prepared testimony of John E. Sugar on behalf of TURN (full title truncated) (TURN/Sugar).
[3] TURN/Sugar, at pp. 28-29.

C. Utility Consumers' Action Network (UCAN)

UCAN submitted testimony on May 15, 2015.[4] UCAN recommends that the TIMP and Post-2011 DIMP costs no longer be subject to a two-way balancing account, but instead a one-way balancing account. If the Commission adopts two-way balancing, UCAN objects to SoCalGas' proposal that undercollections be recoverable through a tier 2 advice letter instead of a tier 3 advice letter.

D. Utility Workers Union of America (UWUA)

UWUA submitted testimony on May 15, 2015.[5] UWUA supports SoCalGas' overall GRC request; however, UWUA asserts that (1) SoCalGas should have a dedicated replacement and mapping program for Aldyl-A pipe, (2) the replacement program of Aldyl-A pipe should be accelerated, and (3) it is concerned that contract inspectors who are part of the Distribution Riser Inspection Program may be unfamiliar with SoCalGas facilities and procedures, and as a result this may result in missed abnormal conditions.

III. REBUTTAL TO PARTIES' PROPOSALS

A. Capital Forecasts

1. ORA

ORA recommends that SoCalGas recover its 2014 recorded capital expenditures for TIMP and DIMP instead of its forecasted expenditures. ORA does not oppose the 2015 and 2016 forecasts.[6] SoCalGas does not oppose ORA's recommendation regarding 2014 capital expenditures.

2. TURN

TURN takes issue with capital forecast for Budget Code 277 – DIMP. While TURN does not oppose SoCalGas' 2014 and 2015 capital forecasts, it reduces the 2016 forecast by $22.633 million (18%). TURN reduces $17.84 million based on adopting the same cost-per-mile estimates of the separate Gas Distribution Main Replacement program.[7] TURN reduces an additional $4.793 million based on a 10% reduction it believes can be realized from combination

[4] Testimony of Briana Kobor, Laura Norin, and Mark Fulmer on behalf of the UCAN (full title truncated) (UCAN/Fulmer).
[5] Exhibit UWUA-7 Testimony of UWUA Witness Don Kick (UWUA-7); Exhibit UWUA-8 Testimony of UWUA Witness Eric Hofmann (UWUA-8).
[6] ORA-11, p. 19 Table 11-11, p. 22 Table 11-12.
[7] TURN/Sugar, p.38.

with the Gas Distribution and Pipeline Integrity DREAMS efforts.[8] TURN states that the relationship between the main replacements as presented in the Gas Distribution area (Exhibit SCG-04-R) and the main replacements as presented in the DIMP-DREAMS replacement program presented in my area, lacks clarity, and further, that efficiencies can be gained by combining the two main replacement programs as well as through the combination of the risk scores for the plastic and steel algorithms.[9]

TURN's premise for its significant reduction in my DIMP-DREAMS forecast is a perception that the work on distribution mains performed by Gas Distribution and by Pipeline integrity overlap.[10] Adding to this perception appears to be TURN's mentioning of Gas Distribution's Main Replacement Program and DIMP-DREAMS program as both replacing 55 miles of main per year, which TURN may be interpreting as duplicative work on the same miles of pipe.[11] This is not the case.

As SoCalGas explained to TURN in discovery,

> 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.[12]

SoCalGas' detailed responses to TURN's data requests make clear that Gas Distribution's main replacement work addresses the routine main replacement activities that operating regions face on a daily basis. These main replacements should be viewed and categorized as reactive rather than proactive. In contrast, DIMP-DREAMS work is intended to prescribe additional measures or accelerated actions as needed to address operator specific threats on the pipeline system in a

[8] TURN/Sugar, p. 29.
[9] TURN/Sugar, p. 34.
[10] TURN/Sugar, p. 38.
[11] TURN/Sugar p. 35.
[12] Response to TURN SCG-FR-17, Question 2, (see Appendix A).

proactive approach. As proposed the DREAMS replacement program is intended to accelerate the replacement of early vintage pipe with a primary focus on poor performing pipeline segments based on the pipe attributes, leakage history and operations and maintenance conditions in a proactive approach.

Given the clear and distinct scopes of work associated with Gas Distribution's main replacement program and the DIMP-DREAMS main replacement program, along with coordination to avoid duplicative efforts, TURN's proposed reduction to my 2016 forecast based on the cost-per-mile calculations germane to Gas Distribution's program is not reasonable or appropriate. Furthermore, TURN's additional arbitrary 10% reduction to my 2016 forecast is likewise not appropriate or reasonably supported by any evidence supporting the basis for, and amount of, the reduction.

B. TIMP and DIMP Balancing Account Treatment

UCAN objects to the continued two-way balancing of TIMP and Post-2011 DIMP costs, arguing that those costs should be one-way balanced.[13] UCAN asserts that SoCalGas is able to develop more reliable cost estimates for TIMP and DIMP, which eliminates the uncertainty necessitating a two-way balancing account.[14] Further, UCAN implies that two-way balancing shifts forecast risk and risk of poor management decisions to ratepayers.[15]

SoCalGas disagrees on both counts. UCAN's perceives "that major regulatory uncertainty following the September 2010 San Bruno explosion has abated given that both federal and state responses to the incident have been adopted."[16] However, the Commission, Congress, and PHMSA have pending proposals that will potentially drive changes to the integrity management rules. For example, the Commission issued draft changes to General Order (G.O.) 112-E that restricts the use of Method 2 in 49 CFR 192.903, in determining High Consequence Areas (HCAs) to pipeline segments of 12-inches or less.[17] This restriction may increase the miles of HCA requiring assessment for the first time once implemented. In addition, SoCalGas expects that the Pipeline Safety, Regulatory Certainty and Job Creation Act of 2011, which is set to expire in 2015, will likely be re-authorized by Congress and contain additional

[13] UCAN/Fulmer, p. 62.
[14] UCAN/Fulmer, p. 63.
[15] UCAN/Fulmer, p. 62.
[16] UCAN/Fulmer, p. 62.
[17] http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M144/K896/144896671.PDF, p. 3.

requirements since many of the sections have not been addressed, specifically Section 5 of the Pipeline Safety Act which included the expansion of Integrity Management beyond HCA has not been addressed. The Pipeline and Hazardous Materials Safety Administration also recently submitted to the Office of Management and Budget (OMB) a proposal to address "Pipeline Safety: Gas Transmission" which will address "repair criteria for both HCA and non-HCA areas, assessment methods, validating & integrating pipeline data, risk assessments, knowledge gained through the IM program, corrosion control, management of change, gathering lines, and safety features on launchers and receivers."[18] As the proposal submitted to OMB is in the pre-rule stage[19] and not publically available at this time, the extent of changes and impacts is unknown but may require implementation during the 2016 GRC cycle.

In addition to the pending regulatory changes, TIMP continues to complete assessments of new pipeline segments as HCAs are extended or newly created due to changes in population densities or changes in the regulatory requirements such as those proposed by the Commission (in G.O. 112-E) that will continue to add a layer of cost uncertainty. A two-way balancing of costs is therefore justified for the TIMPBA and Post-2011 DIMPBA given these facts demonstrating that the regulatory response to San Bruno is still evolving and expanding.

Addressing UCAN's argument that two-way balancing shifts risks associated with forecasting and mismanagement to ratepayers, SoCalGas should be allowed to seek full recovery of its costs associated with these mandated, integral programs. Moreover, UCAN presents no evidence of mismanagement of TIMP or DIMP. SoCalGas' proposal to recover undercollections in the TIMPBA and Post-2011 DIMPBA are addressed in the rebuttal testimony of Reginald Austria (Ex. SCG-233).

C. UWUA Issues

1. Aldyl-A Pipe

SoCalGas acknowledges UWUA's support of its request, and offers the following comments associated with the testimony of UWUA witness Don Kick. Generally, UWUA makes recommendations associated with the mapping of Aldyl-A pipe and the replacement rate of that pipe.[20] SoCalGas understands UWUA's concerns associated with Aldyl-A pipe; however, SoCalGas believes UWUA's recommendations are not an efficient manner of

[18] Popular Title: Gas Transmission, RIN 2137-AE72.
[19] See http://www.reginfo.gov/public/do/eAgendaViewRule?pubId=201104&RIN=2137-AE72.
[20] UWUA-7, p. 3.

mitigating overall risk to the distribution pipeline system. UWUA indicates that Aldyl-A pipe operates under medium and high pressure in distribution mains.[21] To clarify, Aldyl-A is specific to medium pressure and does not operate at a high pressure.

SoCalGas' replacement approach is based on a risk methodology that looks at the system in a holistic manner and takes into consideration a variety of key factors in identifying and prioritizing pipelines for replacement.[22] Under this holistic approach, SoCalGas identifies system threats and risks such as bare steel, which is part of the DREAMS main replacement program. Bare steel has been recognized by PHMSA to be a high risk to the pipeline infrastructure, such that PHMSA called operators to action in 2011 as part of the Pipeline Safety, Regulatory Certainty and Job Creation Act of 2011.[23] A fundamental part of DIMP is measuring performance, monitoring results and evaluating effectiveness of programs implemented. SoCalGas will measure, monitor and evaluate the effectiveness of the DREAMS program in consideration with other threats on the system to determine if changes to the replacement levels are needed.

Mapping of Aldyl-A pipe is being addressed by SoCalGas in an on-going effort of reviewing company purchasing and constructions practices throughout the years to update location data. As stated by other witnesses, SoCalGas welcomes and takes seriously safety concerns raised by our workforce, and by union leadership, and has established multiple channels where these concerns are brought to light (see Ex. SCG-223, Rebuttal Testimony of Mark Serrano).

2. Distribution Riser Inspection Program

UWUA raises concerns with contract inspectors ability to detect abnormal conditions given they may be unfamiliar with the SoCalGas facilities.[24] SoCalGas does not share the same concerns as UWUA regarding contractors, as SoCalGas selects contractors that are qualified on the necessary operator qualifications elements and are required to participate in hands-on training to verify their understanding of the inspections policies and procedures. SoCalGas is confident the qualifications and training is sufficient to identify abnormal conditions.

[21] UWUA-7, p. 3.
[22] Southern California Gas Company and San Diego Gas & Electric Company, Comments on Hazard Analysis and Mitigation Report Aldyl A Polyethylene Gas Pipelines, August 11, 2014, p. 1.
[23] http://opsweb.phmsa.dot.gov/pipeline_replacement/default.asp
[24] UWUA-8, p. 4

IV. CONCLUSION

The only contested cost issue is TURN's proposed reduction to 2015 DIMP capital forecast, which for the reasons provided in this testimony, are not warranted. On SoCalGas' proposal to continue two-way balancing of TIMP and DIMP costs, UCAN's argument that costs are less subject to uncertainty is not supported by the facts demonstrate that rules and regulations continue to evolve and perpetuate uncertainty of scope of work and related costs. On UWUA's concerns and opinions on SoCalGas' approach to Aldyl-A and distribution risers, SoCalGas maintains that it has the policy and procedures to address these system issues in an effective manner. Concerns raised by our field professionals are taken seriously and are evaluated. UWUA and SoCalGas may continue to have differences in various areas, as expressed by UWUA's multiple testimonies; however, there are existing forums to discuss those concerns, and to attempt to reach mutually agreeable solutions, such as in collective bargaining.

This concludes my prepared rebuttal testimony.

APPENDIX A

Response to TURN-SCG-DR-17, Question 2

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.