DATE RESPONDED: MAY 7, 2015

1. How do SB 1371's requirements for best practices and leak reduction fit into the Operations and Maintenance services expenses for pipelines in John Dagg's testimony? Please provide an explanation and appropriate documentation of how those expected costs will be incorporated.

SoCalGas Response:

Best practices and leak reduction activities are not addressed in John Dagg's testimony. As a result, SB1371 best management practices and leak reduction expected costs were not incorporated into the related testimony.

DATE RESPONDED: MAY 7, 2015

2. Please specify how Southern California Gas Company ("SCG") is planning to quantify the methane emissions from its individual leaks and intentional releases, and for its system as a whole. And please provide an explanation and appropriate documentation as to how the costs quantification of natural gas emissions, intentional or unintentional, will be accounted for.

SoCalGas Response:

Plans to quantify emissions will be more clearly delineated once the CPUC adopts rules and procedures in Phase 2 of the Rulemaking 15-01-008, including requirements for quantification.

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.

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

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.

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DATE RESPONDED: MAY 7, 2015

4. In Frank Ayala's Revised Testimony about service and main maintenance beginning on FBA -31, and continuing through FBA -42, he mentions that the leak reduction effort includes leak evaluation and repair, and the impacts of SB 1371 on leak reduction efforts. However, he does not mention how SB 1371's quantification requirement has affected costs for leak evaluation. Are the costs for training and technology used for quantification and repair prioritization included in the figures presented? Please provide an explanation and appropriate documentation showing how SCG is incorporating the costs of quantifying leaks.

SoCalGas Response:

Since R.15-01-008 was filed January 15, 2015 and the Rulemaking is ongoing, Gas Distribution's forecast did not include costs for the impacts of SB 1371¹ on training and technology used for quantification and repair prioritization.

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¹ 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)

DATE RESPONDED: MAY 7, 2015

5. Please provide an explanation and appropriate documentation relating to the new technology used to measure the atmospheric methane levels of older pipeline segments that was mentioned in the response to TURN DATA REQUEST-003, question 5(b). What kind of technology is used, how is it implemented, and how does SCG determine which areas of pipe to survey?

SoCalGas Response:

The technology used is the PICARRO SurveyorTM which is a mobile system for modeling atmospheric methane levels with detection sensitivity in the range of 1-2 parts per billion. The PICARRO SurveyorTM has the ability to provide real-time data onto a web-based geographic imagery.

PICARRO however is not being used for "Leak Survey" or "leak detection" but rather as preassessment tool of areas to be leak surveyed to aid routine walking leak surveyors in providing approximate locations where a system leak might possibly exist. The covered area focused on non-state-of-the-art plastic.

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

6. In ORA DATA REQUEST ORA-SCG-DR-009-DAO question 3, SCG responds that SCG and SDG&E are establishing a team of internal and external resources to conduct an assessment and develop a program to determine the extent to which they need a remote monitoring and control plan. Is this in anticipation of an SB 1371 requirement and will methane emissions be taken into account when determining the need for such tools? Please provide an explanation and appropriate documentation showing how SCG will incorporate methane reduction.

SoCalGas Response:

Please refer to Question 5 of ORA-SCG-DR-009-DAO:

The Gas Distribution Monitoring and Control Program Assessment and Blueprint Development will look at enhancing Gas Distribution's current monitoring activities. We will explore the industry practices and determine the next generation of pressure monitoring enhancements to enable us to detect and resolve pressure anomalies quickly before they create operating and or safety difficulties. Again, this is an exploratory study to determine best practices and to develop go forward plans. One example of activities that will be contemplated is described on page FBA-84:

Development of a plan for the installation of electronic pressure monitors as the replacement of mechanical charts reaches completion. An example of this decision process is to determine if electronic pressure monitors should be installed at all regulator stations.

This assessment to be completed is a blueprint to determine best practices and develop go-forward plans. Since R.15-01-008 was filed January 15, 2015 and the Rulemaking is ongoing, the Monitoring and Control Program could not factor all requirements of SB1371;² however, we plan to factor in all best practice requirements, current and future, and move forward as quickly as possible to construct the recommendations called out in the blueprint.

² 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)