Exhibit Reference: SCG-2 Gas Distribution O&M Expenses

### Subject: Measurement and Regulation

### Please provide the following:

- 1. Referring to the discussion on Aging Infrastructure—replacement of medium and large meter set assemblies (MSAs) as stated on page GOM-20, please provide the following:
  - a. Please identify the number of medium and large MSAs replaced, maintained, and annual expenses incurred each year from 2005-2011 YTD.
  - b. Please identify the acronym, "PMC" and provide a copy of the program scope.
  - c. Please provide support for SCG's claim, as stated on page GOM-20, that meters 20 years old or older are reaching the end of their useful lives.
  - d. Please identify the total number of medium and large MSAs in SCG's territory that need to be replaced and explain in detail how and when SCG determined this number. Please include a copy of any and all calculations and supportive documents.
  - e. Please explain in detail how SCG determined that a total of 650 meters need to be replaced each year beginning with 2012.

## SoCalGas Response:

a. The table below provides the number and expenditures on distribution medium and large MSAs for which maintenance work was completed over the period 2005 through March 2011. SoCalGas has not yet finalized the review and any associated adjustments to its 2011 ealxaspense data, and is therefore unable to provide 2011 expense information at this time.

Medium and Large MSAs Replacement and Maintenance									
Year	2005 2006 2007 2008 2009 2010								
Counts of MSAs	31,465	31,232	25,020	23,429	24,017	22,270	5,472		
Expenses in 2009\$ (000)									
Labor	3,972	3,927	3,155	3,195	3,284	3,181	NA		
NonLabor	490	519	476	491	414	314	NA		
Total	4,463	4,447	3,631	3,687	3,699	3,495	NA		

### SoCalGas Response to Question 1 (Continued):

b. The acronym PMC stands for Planned Meter Change in SoCalGas. It is mandated by CPUC General Order 58-A (GO 58A). The scope of PMC is described in the attached document.



c. The table below provides average age of PMC meters for the period of 2005 – 2009.

Average Age of Meters Removed by PMC								
Year 2005 2006 2007 2008								
Average Age	22.7	23.5	23.5	21.5	25.5			

Meters are removed under the PMC program when they no longer meet the criteria for operation outlined in GO 58A. The table above shows that the average age of the meters that have been removed exceeds 20 years.

- d. The total number of medium and large MSAs in SoCalGas' territory that need to be replaced is 6,603. These meters are medium and large diaphragm meters that have been in service for more than 20 years and/or require more frequent field meter testing (every 4, 6 or 7 years in contrast to GO58A's required 10 year schedule) and adjustments to maintain the registration accuracy. The meter count, 6,603 is based on the actual SoCalGas' records of medium and large diaphragm meters as of October 2009.
- e. After deducting for some meters that would be changed early due to functional problems, at an average rate of 650 incremental PMCs per year, it will take approximately 10 years to remove and replace the 6,603 medium and large diaphragm meters noted in Response 1d.

- 2. With regard to the discussion on Aging Infrastructure—Replacement of Regulators at Regulator Stations, as stated on page GOM-20, please provide the following:
  - a. Please identify the number of regulators inspected, maintained, replaced, and annual expenses incurred each year from 2005-2011.
  - b. Please provide support for SCG's claim that 1,668 regulators have been identified as obsolete.
  - c. Please describe in detail when and how did SCG determine that 1,668 regulators are obsolete? Please include a copy of any and all supportive documents used.
  - d. Please describe in detail how SCG determined the time frame of 5 years as the replacement period for these regulators. Include a copy of all calculations and or supportive documents used.

## SoCalGas Response:

a. The table below provides the number of distribution regulators that were inspected, maintained and/or replaced and annual expenses for the period of 2005 through March 2011. SoCalGas has not yet finalized the review and any associated adjustments to its 2011 expense data, and is therefore unable to provide 2011 expense information at this time.

Regulator Inspection and Maintenance									
Year							Mar YTD 2011		
<b>Regulator Count</b>	17,333	17,639	18,118	17,427	17,468	16,917	4,268		
	Expenses in 2009\$ (000)								
Labor	1,101	1,169	1,106	1,066	1,111	1,052	NA		
Non-Labor	730	919	941	1,250	1,357	1,026	NA		
Total	1,831	2,088	2,047	2,316	2,468	2,078	NA		

b. & c. The obsolete regulator models all belong to the family of Grove 80-BA. They became obsolete in 1997 due to product discontinuation. Their spare parts that need to be replaced during routine maintenance have become scarce and costly. In addition, the maintenance work requires the removal of a piece of pipe of the regulator station and it is time consuming. Because of their antiquated design, servicing these regulators requires awkward body positioning that can easily cause body injury. The count 1,668 is the actual number of regulators of these obsolete models as reported in SoCalGas' meter and regulator records as of September 2009.

# SoCalGas Response to Question 2 (Continued):

d. Based on management judgment, five years is considered a reasonable time frame over which to manage workforce planning and resource procurement.

- 3. Referring to the discussion on Regulatory Requirements on page GOM-21, please provide the following:
  - a. Identify the number of load surveys conducted and the expenses incurred each year from 2005-2011 YTD.
  - b. Identify the number of MSAs rebuilt and the expenses incurred each year from 2005-2011 YTD.
  - c. Please explain how SCG determine the accuracy of gas volume and measurement.
  - d. With regard to the statement on page GOM-21, "Previously the load surveys were issued along with planned meter change orders...The modified criteria for prioritizing customer surveys resulted in more frequent MSA rebuilds", please provide a copy of the operating standards previously used and the current operating standards and highlight the modified criteria. Please also identify the date SCG changed the criteria.
  - e. Please explain in detail how SCG determined that the modified criteria resulted in more frequent MSA rebuilds. Also provide a copy of all supportive documents and calculations used.
  - f. Please provide the ratio of load surveys conducted and MSA rebuilds for each year from 2005-2011YTD.

## SoCalGas Response:

a. The following table provides the number of Load Surveys conducted and the associated expenses for historical years 2005 through March year-to-date 2011. Please note that the load surveys conducted in 2010 are less than the historical levels. This is due to a modification in the 2010 load survey design criteria which resulted in a lower number of 2010 load surveys. SoCalGas has not yet finalized the review and any associated adjustments to its 2011 expense data, and is therefore unable to provide 2011 expense information at this time.

Industrial & Commercial Load Surveys Conducted										
Year	2005	2006	2007	2008	2009	2010	Mar YTD 2011			
Load Surveys	2,438	2,395	2,721	2,361	3,238	1,601	711			
	Estimated Costs in 2009\$ (000)									
Labor	\$137	\$134	\$153	\$132	\$182	\$90	NA			
Non-labor	\$9	\$9	\$10	\$8	\$11	\$6	NA			
Total	\$145	\$143	\$162	\$141	\$193	\$95	NA			

### SoCalGas Response to Question 3 (Continued):

b. The table below provides the number of MSAs rebuilt and the associated expenses from year 2005 through March 2011. SoCalGas has not yet finalized the review and any associated adjustments to its 2011 expense data, and is therefore unable to provide 2011 expense information at this time.

Distribution MSA Rebuilt due to Load Surveys											
Year	Zear 2005 2006 2007 2008 2009 2010										
<b>Total Rebuilds</b>	303	258	258 203 711 1012 969								
	Estimated Costs in 2009\$ (000)										
Labor	75	73	54	209	274	243	NA				
NonLabor	7	9	16	71	38	27	NA				
Total	82	82	70	280	313	269	NA				

c. Most of the meters installed by SoCalGas, such as diaphragm and rotary meters, are mechanical devices. Each meter is rated for a maximum capacity. Their accuracy stabilizes when the gas usage is between 20% and 100% of the maximum capacity. Therefore, when installing a new meter or replacing an existing meter, SoCalGas attempts to match the customer usage requirements with the appropriate sized meter.

Generally, meter accuracy is verified by the specialized testing equipment in SoCalGas' Meter Shop. For certain meter models, their accuracy is checked with portable accuracy test equipment at the MSA site.

d. The operating standard for load surveys was not changed. The field personnel have been following the same procedure to conduct load surveys. The operating standard is attached for reference.



#### SoCalGas Response to Question 3d (Continued):

The activities that changed are the load survey process and the identification of customers to be surveyed. First, customers where gas consumption does not match the original capacity of the current MSA are targeted for the follow-up load survey. Second, the order to complete the load survey is issued one year prior to when the subject MSA will be due for periodic inspection and maintenance. In the past, load surveys were completed at the time of the scheduled PMC order. Thus many of these orders did not require an MSA rebuild since there was no focused coordination with usage. Thus the process change results in more MSA rebuilds to address the changes in customer load. This is evidenced by the data shown in response to question 3f below.

- e. See response to Question 3d above.
- f. The table below provides the ratio of load surveys conducted and MSA rebuilds for each year from 2005 through March 2011.

Distribution MSA Rebuilds and Load Survey Ratio								
Year 2005 2006 2007 2008 2009 2010 M   Year 2005 2006 2007 2008 2009 2010 Y								
MSA Rebuilds	303	258	203	711	1,012	969	258	
Load Surveys Conducted	2,438	2,395	2,721	2,361	3,238	1,601	711	
<b>Rebuilt/LS Conducted Ratio</b>	12%	11%	7%	30%	31%	61%	36%	

4. Referring to the discussion on increased city/municipality requirements on page GOM-21, please provide a copy of any and all calculations and/or documents relied on to support SCG's claim that there is an increase in city/municipality requirements. Please provide a copy of the comparison, if one exists, to show the increase in requirements and identify the time frame of the comparison.

#### SoCalGas Response:

In deriving a forecast for increased city/municipality requirements, SoCalGas collaborated with field district managers and technical supervisors to determine the impact of these requirements on SoCalGas' operations. These managers and supervisors have first hand knowledge as to the changing city/municipality requirements. It was through polling and further discussions that the increase in these requirements was estimated. SoCalGas does not maintain a comparative tracking of changes in city/municipality construction requirements over time.

5. With regard to the discussion on regulator station lid and vault maintenance on page GOM-21, please provide a copy of any and all calculations and documents used to support the statement, "These facilities are increasingly requiring more repairs or the rebuilding of worn, warped, or cracked vaults and lids caused by general deterioration or long-term exposure to heavy traffic."

#### SoCalGas Response:

The statement was based on the continuing feedback from the field operating personnel. They have direct observations of these problems in their daily routines.

- 6. Regarding SCG's request for pedestrian access at construction sites, as discussed on page GOM-22, please provide the following:
  - a. A copy of the agreement with the Disability Rights Advocates (DiRA) to modify SCG's field practices around construction sites for disabled individuals;
  - b. A copy of SCG' former field practices before the agreement was signed;
  - c. A copy of the field practices after the modifications were made;
  - d. A listing of the "materials and procedural changes" that have been identified and/or put in place and the dates these changes were identified or made.
  - e. The annual expenses incurred for this work activity each year from 2008-2011 YTD.

### SoCalGas Response:

- a. This document can be found in Appendix 10 to Decision D.08-07-046, Application A.06-12-010. Section 6 of the Memorandum of Understanding (MOU) governs pedestrian rights-of-way, their design standards, engineering and construction around construction sites. SoCalGas' compliance with the MOU is documented in Exhibit SCG-41 of this proceeding.
- b. Field construction training materials have always included reference to performing work to be in compliance with Americans with Disabilities Act (ADA). Construction drawings were completed consistent with California Joint Utility Traffic Control Manual (formerly known as the WATCH Manual - Work Area Protection and Traffic Control). There were no other formal specific standards.
- c. SoCalGas introduced a new Gas Standard, incorporating the recommended procedures into utility practices for construction sites. Attached is a copy of this Standard (191.0086) "Pedestrian Path of Travel and Accessibility".



- d. The following measures were undertaken in accordance with the measures agreed to in the MOU.
  - 1. 07/07/2009 Purchased access ramps for use by all SoCalGas distribution districts.
  - 2. 6/11/2009 Conducted Webinar training facilitated by mutually agreed upon consultant.

#### SoCalGas Response to Question 6d (Continued):

- 3. 6/12/2009 PowerPoint on training materials made available to all SoCalGas distribution districts.
- 4. 6/24/2009 -- System Instruction 191.0084 "Pedestrian Path of Travel and Accessibility" was published.
- 5. 6/25/2009 DVD of Webinar training session; including dialog and Q&A session made available to all SoCalGas distribution employees.
- 6. 04/05/2010 Purchased railing/barricade kits for use by all SoCalGas distribution districts.
- 7. 5/28/010 Completed required field audits. Audits were by mutually agreed upon consultant.
- 8. 6/21/2010 Audit report completed and sent to Disability Rights Advocates per MOU.
- e. SoCalGas has historically recorded its costs for O&M work by cost center and FERC accounts corresponding to the major activity completed. These construction specifications are a factor influencing the total cost of completing the activity. The expenses associated with each factor that may influence a single activity are not tracked separately. Therefore, the requested detail is not available.

7. Regarding SCG's discussion of incremental odorization testing on page GOM-22, please provide a copy of the field practices and/or operating standards which show that SCG has moved to a more stringent application of odorant testing during MSA installations.

### SoCalGas Response:

The SoCalGas operating standard for odorization testing was introduced in late 2010. It is applicable to all MSA installations. Since it is relatively new, there have been no previous editions available for comparison. The gas standard is attached below.



8. Referring to page GOM-22, please provide the annual expenses for odorant checking/testing each year from 2005-2011YTD.

### SoCalGas Response:

SoCalGas has historically recorded its costs for O&M work by cost center and FERC accounts corresponding to the major activity completed. Odorization testing is a factor influencing the total cost of completing rebuilds of medium and large PMCs. The expense associated with each factor that may influence a single activity has not been tracked separately, or at a level of specificity sufficient to produce a detailed historical report.