**QUESTION 1:**

In Response to ORA-06 Q2(d), SoCalGas/SDG&E indicates that the number $223.60 generally represents unit marginal customer cost for residential customers hooked up to SoCalGas’ distribution system. In Response to ORA-07 Q1(f), SoCalGas/SDG&E describes sample size.

1. The calculation of the weighted average meter and regulator CAPEX/customer shows the use of various sample sizes such as those shown in Tab “Meter cost detail” of the SCG 2017 TCAP LRMC Customer Cost file (i.e., under column E showing 62,281 for Single Family (SF), 53,269 for Multi-Family (MF), and so on). Please fully explain how the sample size data used to determine the weighted average meter and regulator CAPEX per customer cost represents a reasonable and valid sample size for the population of the number of residential customers, in this case, those shown in Tab “cust 2 Customer Count” in the SCG2017TCAP LRMC Customer Costs excel spreadsheet file.
2. Please provide any study or test done by SoCalGas/SDG&E that show the statistical validity of the sample sizes used in this case.
3. Please cite reference to the source of the sample size numbers shown under column E of the Tab “Meter cost detail.”

**RESPONSE 1:**

1. The customer-related LRMC is the cost of hooking up a new customer. Therefore, the focus is on new customers and their meter configurations. To calculate LRMC, there are multiple options on underlying data sources: (i) whether to include new customers from a single year or from multiple years; (ii) whether to include all new customers or a subset (sample) of new customers. Since the implementation of the LRMC method, for residential and core commercial and industrial segments, it has been SoCalGas/SDG&E’s practice to include all new customers from the recent five-year historical period. For LRMC calculation, the relevant point is not whether the number of new customers represents a reasonable and valid sample size for the existing/total customers. Rather, the relevant point is whether the inclusion of data for all new customers for the recent five years would result in a reasonable cost of hooking up a new customer.
2. See response to a) above. SoCalGas/SDG&E have not done any such study or test.
3. For residential, core commercial and industrial customers, the source data includes all new customer additions between 2009-2013 (premises with initial gas service started between 2009-2013).

**QUESTION 2:**

In the SCG 2017 TCAP LRMC Customer Costs excel spreadsheet file, specifically at Tab “Meter cost detail,” the calculation of the weighted average meter and regulator CAPEX/Customer information for Multi-Family (MF) is shown starting at excel row49 through 84. Please explain why excel row 49 uses the code “S10” instead of “M10” which is the appropriate code for MF meter size 1.

1. Please confirm if you agree the code on excel row 49 for MF meter size 1 is in error as described above.
2. Please confirm if you agree that as a result of using the code “S10” instead of “M10” on excel row 49, the information for the average labor $/meter for MF at cell F49 is shown as $146.51 instead of the lower amount of $109.88 for M10.
3. Please confirm if you agree that as a result of the use of “S10” instead of “M10” on excel row 49, the calculation of the average meter and regulator CAPEX/customer at cell M49 shown under column M for MF size 1 meter results in the amount of $240.39, instead of the lower amount of $190.03. The use of the lower amount of $190.03 should result in the corrected amount in cell M58 of $195.96 instead of $244.96 currently shown with code “S10.”
4. Please confirm that the latter amount of $190.03 is the correct amount for MF size 1 meter as shown in the Worksheet in Response to ORA-07 Q1a at Tab “Summary” at cell C11and the Worksheet in Response to ORA-07 Q1b at Tab “Table 12 & 13 Small & Med MSA” at cell F18.

**RESPONSE 2:**

1. The use of the code “S10” instead of “M10” in excel row 49 is not an error. “M10” meter CAPEX/customer was based on a four-unit multifamily complex meter configuration. With a variety of multifamily complexes comprising units as few as two-unit duplexes, SoCalGas decided to apply single family meter CAPEX (“S10” instead of “M10”) for multifamily units.
2. Confirmed.
3. Confirmed on first sentence but not confirmed on second sentence with reference to “corrected amount.” See response to a) above.
4. Not confirmed with reference to “the correct amount.” See response to a) above.

**QUESTION 3:**

A similar error with respect to the use of code “S10” instead of “M10” is noted at excel row 60 in the excel spreadsheet file described in Question 2 above. Please explain why excel row 60 uses the code “S10” instead of “M10” for MF meter size 1. Please confirm if you agree the code at excel row 60 is in error.

**RESPONSE 3:**

The code “S10” at excel row 60 is correct and not in error. The Excel row 60 represents master metered customers. A natural gas master meter operator purchases natural gas through single main gas meter similar to a single family customer.

**QUESTION 4:**

In Response to ORA-07 Q2b, SoCalGas/SDG&E provided a worksheet showing Table 11 with the caption “Distribution Service Unit Costs for New Business and Replacement.” The worksheet contains hardwired numbers of the unit costs for the various sizes of plastic and steel for new business and replacement. Please provide the active excel spreadsheet file that served as the source of information for the data reflected as distribution service unit costs shown in Table 11. The active spreadsheet should enable ORA to verify how the various distribution service unit costs shown as hardwired numbers were derived.

**RESPONSE 4:**

See the attached Excel file, which contains the requested info. Distribution service unit costs in this TCAP were derived by escalating unit costs from the last TCAP as the 2011- 2013 unit cost data generally appeared high and did not seem reasonable compared to prior TCAP filings.



**QUESTION 5:**

In the 2017 TCAP SCG RD Model excel spreadsheet file, specifically at Tab “Alloc Factors,” the forecast number of customers on excel row 16 shows 23 residential customers at the transmission level. At excel row 22, the tab shows there are 7,148 residential customers forecast at the high pressure distribution level. Finally, at excel row 28, the tab shows there are 5,610,637 residential customers forecast at the medium pressure distribution level. On a cumulative basis, the tab shows at excel row 35 there are 5,617,809 residential customers forecast at all three levels. The forecast number of residential customers of 5,617,809 shows an increase of 194,834 over the 2013 residential customer number of 5,422,975 as presented at cell F10 in Tab “cust 2 Customer Count” of the SCG 2017 TCAP LRMC Customer Costs excel spreadsheet file. The average change in the number of residential customer count per year can be calculated as 48,708.5 per year (i.e. 194,834 divided by 4 years from 2013 to 2017). The new customer hook up rate assumed in the SCG 2017 TCAP LRMC Customer Costs excel file at Tab “cust MUC” is 0.47% at cell I88, which results in 25,224 number of new residential customer hook ups per year at cell I89. This is lower than the calculated yearly 4-year average of 48,708.5.

1. Please explain whether there are currently existing SoCalGas residential customers served at high pressure distribution and the transmission levels.
2. Please clarify the forecast year, whether the above described SoCalGas customer forecast represents the forecast of total connected meters for residential customers is for the year 2016 or 2017.
3. Please provide the data to support the basis for the SoCalGas assumed new customer hook up rate of 0.47% which results in 25,224 number of new residential customer hook ups per year.

**RESPONSE 5:**

1. Yes, currently there are existing residential customers served at transmission and high pressure system.
2. The forecast of total connected meters for residential customers is for the average of 2017-2019.
3. The numbers in row 88 of the "Cust MUC" tab came from an analysis of customers by rate class that had initial gas service started in 2013. All premises that had initial service started in 2013 were merged with customer detail information to obtain the customer rate class. Total new 2013 customers by rate class was divided by December 2013 active total rate class customers to obtain the new customer proportion. The spreadsheet 2013 new residential customer summary shows how the proportions were derived.

**QUESTION 6:**

In Response to ORA-08 Q1a, SoCalGas/SDG&E provided a worksheet captioned “Meter &

Regulator 2013 O&M (Including Overheads) Costs showing the inclusion of an overhead allocation of $6,059 (in $000).

Please explain why it should be reasonable to include the overhead allocation in the meter and regulator O&M and whether this is not already included in the marginal customer-related O&M shown in the LRMC OM Loaders excel file shown starting at excel row 18.

**RESPONSE 6:**

The overhead costs are distinct from the A&G loaders. While overhead costs are part of direct O&M costs, O&M loaders, such as A&G, are applied to direct O&M costs to derive fully-loaded O&M costs. Overhead costs are recorded in FERC accounts 870, 879, 880, 881, 885, and 894. Examples of overhead costs are Operation Supervision and Engineering, and Maintenance Supervision and Engineering expenses. A&G loaders are recorded in FERC accounts 920 – 935. Examples of A&G costs include employee pensions and benefits, property insurance, rents, and office supplies and expenses.

It is reasonable to include these overhead costs in the derivation of Meter & Regulator O&M costs as they are considered marginal costs. These costs are not already included in the A&G loader as they are recorded in different FERC accounts.

**QUESTION 7:**

In Response to ORA-08 Q1a, SoCalGas/SDG&E provided a worksheet captioned “LRMC Cost Study: Recorded Costs 2013” showing accounts 901, 902, 903, and 905 with a grand total of $170,865,453. The SCG 2017 TCAP LRMC Customer Costs excel spreadsheet file shows this amount of $170,865,453 in Tab “cust8 o&m” at cell AD21 and used as the basis for the customer accounts O&M cost of $31.33/customer for residential customers at cell H23.

Please provide evidence showing that all of the costs in the amount of $170,865,453 are marginal costs for gas distribution and neither includes any non-marginal costs nor any transmission/gas storage costs.

**RESPONSE 7:**

The “Customer Accounts O&M Costs” showing accounts 901, 902, 903, and 905 with a grand total of $170,865,453 include only those FERC cost subaccounts that are marginal. In its 1993 BCAP implementing the LRMC D. 92-12-058, SoCalGas conducted extensive analysis of FERC cost subaccounts and categorized each into marginal and nonmarginal accounts. In subsequent BCAPs/TCAPs, SoCalGas continued the same categorization. The major Customer Accounts O&M costs that are considered marginal are discussed in Mr. Chaudhury’s Revised Direct Testimony on pages 12-13. Transmission/storage accounts were excluded. Transmission O&M expenses are recorded in accounts 861 -867. Storage O&M expenses are recorded in accounts 830-837.

**QUESTION 8:**

In Response to ORA-08 Q1a, SoCalGas/SDG&E provided a worksheet captioned “Customer

Services O&M Costs” showing O&M accounts 870-880 in the grand total amount of $130,661,864. The SCG 2017 TCAP LRMC Customer Costs excel spreadsheet file shows this amount of $130,661,864 in Tab “cust8 o&m” at cell AD14 and used as the basis for customer services O&M costs of $21.89/customer for residential customers at cell H16.

Please provide evidence showing that all of the costs in the amount of $130,661,864 are marginal costs for gas distribution and neither includes any non-marginal costs nor any transmission/gas storage costs.

**RESPONSE 8:**

“Customer Services O&M Costs” showing O&M accounts 870-880 in the grand total amount of $130,661,864 include only those FERC cost subaccounts that are marginal. In its 1993 BCAP implementing the LRMC D. 92-12-058, SoCalGas conducted extensive analysis of FERC cost subaccounts and categorized each into marginal and nonmarginal accounts. In subsequent BCAPs/TCAPs, SoCalGas continued the same categorization. The major Customer Services O&M costs that are considered marginal are discussed in Mr. Chaudhury’s Revised Direct Testimony on pages 11-12. Transmission/storage accounts were excluded. Transmission O&M expenses are recorded in accounts 861 -867. Storage O&M expenses are recorded in accounts 830-837.