

Application No: A.16-09-005
Exhibit No.: _____
Witness: S. Chaudhury

Application of Southern California Gas Company (U 904 G) and San Diego Gas & Electric Company (U 902 G) to Recover Costs Recorded in the Pipeline Safety and Reliability Memorandum Accounts, the Safety Enhancement Expense Balancing Accounts, and the Safety Enhancement Capital Cost Balancing Accounts

Application 16-09-005

CHAPTER XII
DIRECT TESTIMONY OF
SHARIM CHAUDHURY
ON BEHALF OF
SOUTHERN CALIFORNIA GAS COMPANY
AND
SAN DIEGO GAS & ELECTRIC COMPANY

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

September 2, 2016
Amended: October 4, 2017
Amended: November 20, 2017

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1 **I. PURPOSE AND OVERVIEW OF TESTIMONY**

2 The purpose of my direct testimony on behalf of San Diego Gas & Electric Company
3 (SDG&E) and Southern California Gas Company (SoCalGas or SCG) is to provide the gas
4 transportation rate impacts that would result from the amortization of the balances in the Pipeline
5 Safety and Reliability Memorandum Accounts (PSRMAs), the Safety Enhancement Capital Cost
6 Balancing Accounts (SECCBAs), the Safety Enhancement Expense Balancing Accounts (SEEBAs)
7 of SoCalGas and SDG&E.

8 **II. METHODOLOGY TO ALLOCATE PSEP COSTS**

9 Per Decision (D).14-06-007, Pipeline Safety Enhancement Plan (PSEP) costs will be
10 allocated consistent with the existing cost allocation and rate design for SoCalGas and SDG&E and
11 include allocation to the backbone function.¹ This testimony is updated to reflect: (1) updated
12 revenue requirement, and (2) since D.16-12-063 which clarified that the PSEP costs functionalized
13 as high pressure distribution shall be allocated using the existing marginal demand measures for
14 high pressure distribution costs.² As such, ~~and consistent with the Application (A.14-12-016) for~~
15 ~~the recovery of their PSRMA balances filed on December 17, 2014,~~ SoCalGas and SDG&E are
16 proposing to allocate the account balances (below) on a functional basis. Table 1 depicts the
17 methods of allocating the PSEP account balances to each function and to rate classes.

¹ D.14-06-007 authorized the allocation of safety related costs. D.14-06-007, Ordering Paragraph #9. (“Safety Enhancement costs will be allocated consistent with the existing cost allocation and rate design for the companies.”). In addition, allocation of relevant costs to backbone transmission service was ordered. D.14-06-007, mimeo, at 50. (“Thus, any Safety Enhancement costs that are functionalized as backbone transmission costs are to be allocated to the Backbone Transmission Service customer class consistent with the allocation of the existing rate design.”).

² D.16-12-063, Conclusion of Law #24. The original testimony filed on September 2, 2016 had proposed to use the Long Run Marginal Cost (LRMC) to allocate the PSEP costs functionalized as high pressure distribution costs. The amended testimony filed on October 4, 2017 inadvertently retained the LRMC method for allocating PSEP costs functionalized as high pressure distribution costs.

TABLE 1 Existing Functional Allocation Methods		
Function	SoCalGas	SDG&E
Backbone Transmission	100% to the SCG/SDG&E Backbone Transmission Service Rate	100% to the SCG/SDG&E Backbone Transmission Service Rate
Local Transmission	Based on Peak Month Demand by Class on Local Transmission System. Currently 56%/44% Core/Noncore. ³	Based on Peak Month Demand by Class on Local Transmission System. Currently 54%/46% Core/Noncore.
High Pressure Distribution	Based on <u>Peak Month Demand by Class on High Pressure System. Long Run Marginal Cost (LRMC) Scalar method.</u> ⁴	Based on <u>Long Run Marginal Cost (LRMC) Scalar method. Peak Day Demand by Class on High Pressure System.</u>

III. BALANCES TO BE COLLECTED IN GAS TRANSPORTATION RATES

The requested PSEP balances to be collected in transportation rates have been recorded in three accounts: (i) the PSRMAs, (ii) the SECCBAs, and (iii) the SEEBAs. The Safety Enhancement capital-related balances (recorded in SECCBAs and PSRMAs) to be amortized in rates are \$15.68 million (\$13.74 million at SoCalGas and \$1.94 million at SDG&E) as discussed in Chapter XI (Austria). These balances consist of the annualized revenue requirements resulting from capitalized costs. The Safety Enhancement O&M expenses to be amortized (recorded in SEEBAs and PSRMAs) in rates is \$54.76 million (\$54.07 million at SoCalGas and \$0.69 million at SDG&E) as explained in Chapter XI (Austria).

IV. ALLOCATION OF PSEP COSTS TO FUNCTIONS

The first step in allocating the PSEP balances to transportation rates requires the allocation of these costs to the relevant pipeline functions: backbone, local transmission, and high pressure distribution. Allocation to the functions was performed as follows:

³ This is the split after SoCalGas and SDG&E Transmission System Integration process.

⁴ ~~In the pending Application (A.14-12-016), the LRMC Scalar method approach was proposed by the Southern California Generation Coalition (SCGC) for the recovery of PSRMA costs allocated to High Pressure Distribution (HPD) function. SoCalGas/SDG&E had proposed to allocate HPD cost to the HPD Function only. In A.14-12-016, SoCalGas/SDG&E noted that both interpretations appear to be consistent with the CPUC authorized cost allocation method for HPD Safety-related Enhancement costs (per D.14-06-007), and are seeking the CPUC's clarification as to which of the two interpretations is preferred.~~

- 1) O&M expenses and capital costs are identified by project name, as discussed in Chapter III (Phillips), Chapter V (Mejia) and Chapter VI (Bermel).
- 2) Adjustments to the O&M and capital expenditures are presented in Chapter XI (Austria) to arrive at the annual revenue requirement, by pipeline number.
- 3) The annual revenue requirement, by pipeline number, is allocated to the designated function that the line provides (e.g., backbone transmission, local transmission or high pressure distribution). The Direct Testimony of Ms. Sim Cheng Fung in SoCalGas' 2017 Triennial Cost Allocation Proceeding (TCAP) Phase II contains the functional designation of each pipeline. In instances where costs were not attributable to a specific line, and therefore, not to a specific Backbone, Local or Distribution function, such costs are identified as Non-Functional. A summary of the initial allocation of costs is shown in Table 2 below.

TABLE 2
SECCBA/PSRMA

	SoCalGas	SDG&E	Total
Backbone Transmission	\$5,083	\$4	\$5,087
Local Transmission	\$2,061	\$0	\$2,061
High Pressure Distribution	\$6,547	\$1,937	\$8,484
Non-functional A&G	\$45	\$0	\$45
Total \$000's	\$13,737	\$1,941	\$15,678

SEEBA/PSRMA

-	<u>SoCalGas</u>	<u>SDG&E</u>	<u>Total</u>
<u>Backbone Transmission</u>	<u>\$26,011</u>	<u>\$0</u>	<u>\$26,011</u>
<u>Local Transmission</u>	<u>\$15,561</u>	<u>\$0</u>	<u>\$15,561</u>
<u>High Pressure Distribution</u>	<u>\$6,417</u>	<u>\$0</u>	<u>\$6,417</u>
<u>Non-functional A&G</u>	<u>\$5,782</u>	<u>\$686</u>	<u>\$6,469</u>
<u>Total \$000's</u>	<u>\$53,771</u>	<u>\$686</u>	<u>\$54,457</u>

-	SoCalGas	SDG&E	Total
Backbone Transmission	\$26,011	\$0	\$26,011
Local Transmission	\$15,865	\$0	\$15,865

High Pressure Distribution	\$6,417	\$0	\$6,417
Non functional A&G	\$5,782	\$686	\$6,469
Total \$000's	\$54,075	\$686	\$54,761

**numbers may not add up due to rounding*

1
2
3

Non-Functional costs are then allocated evenly amongst the functions as shown in Table 3 below.

**TABLE 3
SECCBA/PSRMA**

Non-functional A&G costs Allocated to Functions	SoCalGas allocation Factor	SoCal Gas	SDG&E allocation Factor	SDG&E	Total
Backbone Transmission	33%	\$15	50%	\$0	\$15
Local Transmission	33%	\$15	0%	\$0	\$15
High Pressure Distribution	33%	\$15	50%	\$0	\$15
Total \$000's		\$45		\$0	\$45

SEEBA/PSRMA

Non-functional costs Allocated to Functions	SoCalGas allocation Factor	SoCal Gas	SDG&E allocation Factor	SDG&E	Total
Backbone Transmission	33%	\$1,927	50%	\$343	\$2,271
Local Transmission	33%	\$1,927	0%	\$0	\$1,927
High Pressure Distribution	33%	\$1,927	50%	\$343	\$2,271
Total \$000's		\$5,782		\$686	\$6,469

1 A summary of the PSEP costs allocated to each function including the allocation of Non-
2 Functional costs, but before integration of local transmission costs, is depicted in Table 4.

TABLE 4

SECCBA/PSRMA Allocated to Functions (before system integration)	SoCalGas	SDG&E	Total
Backbone Transmission	\$5,098	\$4	\$5,102
Local Transmission	\$2,077	\$0	\$2,077
High Pressure Distribution:	\$6,562	\$1,937	\$8,499
Total Pre-integration \$000's	\$13,737	\$1,941	\$15,678

SEEBA/PSRMA Allocated to Functions (before system integration)	SoCalGas	SDG&E	Total
Backbone Transmission	\$27,938	\$343	\$28,281
Local Transmission	\$17,792 488	\$0	\$17,792 488
High Pressure Distribution:	\$8,344	\$343	\$8,687
Total Pre-integration \$000's	\$534,075 771	\$686	\$54,761 457

1 4) In keeping with existing cost allocation process, the local transmission costs are
 2 integrated between SoCalGas and SDG&E as part of integration of transmission
 3 system cost.⁵ Local transmission integration is show in Table 5 below.

TABLE 5

SECCBA/PSRMA Integration of Local Transmission Costs \$000's	SoCalGas	SDG&E	Total
Allocation before integration	\$2,077	\$0	\$2,077
Integration factor ⁶	87%	13%	100%
Integrated Local Transmission	\$1,807	\$270	\$2,077

SEEBA/PSRMA Integration of Local Transmission Costs \$000's	SoCalGas	SDG&E	Total
Allocation before integration	\$17,792	\$0	\$17,792
Integration factor ⁷	87%	13%	100%
Integrated Local Transmission	\$15,479 <u>215</u>	\$2,313 <u>273</u>	\$17,792 <u>488</u>

4 Table 6 summarizes the allocation of PSEP balances into the functions. These are the revenue
 5 requirements allocated to each function for inclusion in transportation rates and anticipated to be
 6 recovered over a 12-month period.

⁵ This integration is based on splitting local transmission costs by the % share of cold-year throughput (87% SCG and 13% SDG&E), similar to the integration of the Integrated Transmission Balance Account (ITBA).

⁶ Integration factor is applicable to the Total.

⁷ Integration factor is applicable to the Total.

TABLE 6

SECCBA/PSRMA Allocated to Functions

	SoCalGas	SDG&E	Total
Backbone Transmission	\$5,098	\$4	\$5,102
Local Transmission	\$1,807	\$270	\$2,077
High Pressure Distribution:	\$6,562	\$1,937	\$8,499
Total \$000's	\$13,467	\$2,211	\$15,678

SEEBA/PSRMA Allocated to Functions

-	SoCalGas	SDG&E	Total
<u>Backbone Transmission</u>	<u>\$27,938</u>	<u>\$343</u>	<u>\$28,281</u>
<u>Local Transmission</u>	<u>\$15,215</u>	<u>\$2,273</u>	<u>\$17,488</u>
<u>High Pressure Distribution:</u>	<u>\$8,344</u>	<u>\$343</u>	<u>\$8,687</u>
<u>Total \$000's</u>	<u>\$51,497</u>	<u>\$2,960</u>	<u>\$54,457</u>

-	SoCalGas	SDG&E	Total
Backbone Transmission	\$27,938	\$343	\$28,281
Local Transmission	\$15,479	\$2,313	\$17,792
High Pressure Distribution:	\$8,344	\$343	\$8,687
Total \$000's	\$51,762	\$2,999	\$54,761

1 Finally, Table 7 summarizes the total PSEP costs for all the accounts combined.

Table 7
Total PSEP Costs Allocated to Functions

-	SoCalGas	SDG&E	Total
<u>Backbone Transmission</u>	<u>\$33,036</u>	<u>\$347</u>	<u>\$33,383</u>
<u>Local Transmission</u>	<u>\$17,021</u>	<u>\$2,543</u>	<u>\$19,565</u>
<u>High Pressure Distribution</u>	<u>\$14,906</u>	<u>\$2,280</u>	<u>\$17,187</u>
<u>Total \$000's</u>	<u>\$64,964</u>	<u>\$5,171</u>	<u>\$70,135</u>

-	SoCalGas	SDG&E	Total
Backbone Transmission	\$33,036	\$347	\$33,383
Local Transmission	\$17,286	\$2,583	\$19,869
High Pressure Distribution	\$14,906	\$2,280	\$17,187
Total \$000's	\$65,229	\$5,210	\$70,439

V. RATE IMPACT

Applying the functional allocation methods shown in Table 1 to the functionalized costs shown in Table 7 results in the proposed transportation rates presented in Table 8 below.⁸ The backbone transmission service rate is for transportation service from receipt points to the city gate. The other listed transportation rates are for service from City Gate to end-use customers' meters. For core customers of SoCalGas and SDG&E, the backbone transmission service rate is embedded in the gas procurement tariff rate and also in the residential bill impact shown in Table 8.

Table 8				
Illustrative Transportation Rates				
\$/therm except as noted				
<u>\$/therm except as noted</u>	<u>9/1/2016 Rates</u>	<u>Proposed Rates</u>	<u>Increase (decrease)</u>	<u>% change</u>
<u>SCG Summary</u>				
<u>Core Rates</u>				
Residential	\$0.826	\$0.828	\$0.002	0.2%
Residential class average bill \$/month	\$41.62	\$41.75	\$0.13	0.3%
Core C&I	\$0.437	\$0.440	\$0.003	0.8%
NGV (uncompressed)	\$0.220	\$0.222	\$0.003	1.2%
-				-
<u>NonCore Distribution Level Service Rates</u>				
C&I Rate	\$0.073	\$0.076	\$0.004	5.1%
Electric Generation Tier 1	\$0.145	\$0.145	\$0.001	0.5%
Electric Generation Tier 2	\$0.044	\$0.045	\$0.001	3.3%
<u>NonCore Transmission Level Service Rates</u>				
C&I Rate (w/ csitma & CARB Fee adders)	\$0.018	\$0.019	\$0.001	3.9%
Electric Generation Rate (w/CARB Fee)	\$0.016	\$0.016	\$0.001	4.7%
Backbone Transmission Service \$/dth/day	\$0.186	\$0.203	\$0.016	8.8%
Revenue Requirement \$ millions	\$2,761	\$2,793	\$32	1.1%
CARB Fee Credit \$/therm	(\$0.0018)	(\$0.0018)	\$0.0000	0.0%
-				-
<u>SDG&E Summary</u>				
<u>Core Rates</u>				
Residential	\$0.962	\$0.964	\$0.002	0.2%
Residential class average bill \$/month	\$32.54	\$32.62	\$0.08	0.3%

⁸ Pursuant to D.16-08-003, SoCalGas and SDG&E have been authorized partial (50%) interim rate recovery of PSEP costs, subject to refund, and have previously incorporated costs associated with this application into rates (see SoCalGas Advice Letter 5017-A and SDG&E Advice Letter 2506-G-A). As a result of revenue requirements being previously incorporated into rates subject to refund, the "Illustrative Transportation Rates" table illustrates the potential rate impact of the remaining PSEP costs to be addressed in this application.

<u>Core C&I</u>	<u>\$0.431</u>	<u>\$0.436</u>	<u>\$0.005</u>	<u>1.1%</u>
<u>NGV (uncompressed)</u>	<u>\$0.223</u>	<u>\$0.225</u>	<u>\$0.003</u>	<u>1.2%</u>
-				-
<u>NonCore Distribution Level Service Rates</u>				-
<u>C&I Rate</u>	<u>\$0.097</u>	<u>\$0.101</u>	<u>\$0.003</u>	<u>3.6%</u>
<u>Electric Generation Tier 1</u>	<u>\$0.146</u>	<u>\$0.147</u>	<u>\$0.001</u>	<u>0.5%</u>
<u>Electric Generation Tier 2</u>	<u>\$0.045</u>	<u>\$0.047</u>	<u>\$0.001</u>	<u>3.2%</u>
<u>NonCore Transmission Level Service Rates</u>				-
<u>C&I Rate (w/ csitma & CARB Fee adders)</u>	<u>\$0.022</u>	<u>\$0.022</u>	<u>\$0.001</u>	<u>3.4%</u>
<u>Electric Generation Rate (w/CARB Fee)</u>	<u>\$0.017</u>	<u>\$0.018</u>	<u>\$0.001</u>	<u>4.3%</u>
<u>Revenue Requirement \$ millions</u>	<u>\$407</u>	<u>\$409</u>	<u>\$2</u>	<u>0.5%</u>
<u>CARB Fee Credit \$/therm</u>	<u>(\$0.002)</u>	<u>(\$0.002)</u>	<u>\$0.000</u>	<u>0.0%</u>

1

Table 8				
Illustrative Transportation Rates				
\$/therm except as noted				
<i>\$/therm except as noted</i>	9/1/2016 Rates	Proposed Rates	Increase (decrease)	% change
<u>SCG Summary</u>				-
-Core Rates				-
- Residential	\$0.826	\$0.830	\$0.004	0.5%
- Residential class average bill \$/month	\$41.62	\$41.83	\$0.22	0.5%
- Core C&I	\$0.437	\$0.439	\$0.002	0.5%
- NGV (uncompressed)	\$0.220	\$0.221	\$0.001	0.5%
-				-
-NonCore Distribution Level Service Rates				-
- C&I Rate	\$0.073	\$0.074	\$0.001	1.4%
- Electric Generation Tier 1	\$0.145	\$0.146	\$0.001	0.9%
- Electric Generation Tier 2	\$0.044	\$0.045	\$0.001	2.1%
-NonCore Transmission Level Service Rates				-
- C&I Rate (w/ csitma & CARB Fee adders)	\$0.018	\$0.019	\$0.001	4.2%
- Electric Generation Rate (w/CARB Fee)	\$0.016	\$0.016	\$0.001	5.0%
- Backbone Transmission Service \$/dth/day	\$0.186	\$0.203	\$0.016	8.8%
- Revenue Requirement \$ millions	\$2,761	\$2,795	\$33	1.2%
- CARB Fee Credit \$/therm	(\$0.0018)	(\$0.0018)	\$0.0000	0.0%
-				-
<u>SDG&E Summary</u>				-
-Core Rates				-
- Residential	\$0.062	\$0.067	\$0.005	0.5%
- Residential class average bill \$/month	\$32.54	\$32.70	\$0.16	0.5%
- Core C&I	\$0.431	\$0.433	\$0.002	0.4%
- NGV (uncompressed)	\$0.223	\$0.224	\$0.001	0.5%
-				-
-NonCore Distribution Level Service Rates				-
- C&I Rate	\$0.097	\$0.099	\$0.001	1.2%
- Electric Generation Tier 1	\$0.146	\$0.148	\$0.001	0.9%
- Electric Generation Tier 2	\$0.045	\$0.046	\$0.001	2.1%
-NonCore Transmission Level Service Rates				-

C&I Rate (w/ csitma & CARB Fee adders)	\$0.022	\$0.022	\$0.001	3.6%
Electric Generation Rate (w/CARB Fee)	\$0.017	\$0.018	\$0.001	4.7%
Revenue Requirement \$ millions	\$407	\$409	\$2	0.6%
CARB Fee Credit \$/therm	(\$0.002)	(\$0.002)	\$0.000	0.0%

1 This concludes my prepared Direct Testimony.

1 **VI. WITNESS QUALIFICATIONS**

2 My name is Iftekharul (Sharim) Bar Chaudhury. I am employed by SoCalGas and
3 SDG&E as the Rate Design and Demand Forecasting Manager within the Regulatory Affairs
4 department, which supports gas regulatory activities of both SoCalGas and SDG&E. My
5 business address is 555 West Fifth Street, Los Angeles, California 90013-1011.

6 I hold a Bachelor of Arts degree in Economics from Illinois State University and received
7 both a Masters and Ph.D. degree in Economics from the University of California, San Diego. I
8 have held my current position managing the Gas Rates group since August 2014, and have been
9 managing the demand forecasting group since April 2013. Prior to joining SoCalGas, I worked at
10 Southern California Edison Company from June 1999 to March 2013, holding several positions
11 of increasing responsibility, from Senior Analyst to Manager of Price Forecasting to Manager of
12 Long-Term Demand Forecasting. From October 1998 to May 1999, I worked at National
13 Economic Research Associates (NERA) as a Senior Consultant. Prior to joining NERA, I
14 worked at SoCalGas from 1991 to 1998, holding several positions of increasing responsibility,
15 starting as Marketing Analyst to Senior Economist in the Rate Design group to Manager of Rate
16 Design. I also worked for about a year at the California Energy Commission (CEC) in the
17 Demand Analysis Office. I have previously testified before the Commission.