

Application No: A.15-07-  
Exhibit No.: \_\_\_\_\_  
Witness: Sim-Cheng Fung

Application of Southern California Gas Company  
(U 904 G) and San Diego Gas & Electric Company  
(U 902 G) for Authority to Revise their Natural Gas  
Rates Effective January 1, 2017 in this Triennial  
Cost Allocation Proceeding Phase 2

A.15-07-\_\_\_\_\_  
(Filed July 8, 2015)

**PREPARED DIRECT TESTIMONY OF**  
**SIM-CHENG FUNG**  
**SOUTHERN CALIFORNIA GAS COMPANY AND**  
**SAN DIEGO GAS & ELECTRIC COMPANY**

**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA**

July 8, 2015

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**PREPARED DIRECT TESTIMONY  
OF SIM-CHENG FUNG**

**I. PURPOSE**

The purpose of my direct testimony is to present the embedded transmission cost that Southern California Gas Company (SoCalGas) and San Diego Gas & Electric Company (SDG&E) are proposing for 2017-2019. After briefly describing my data sources, my testimony will discuss the embedded cost of SoCalGas' and SDG&E's transmission system and the allocation of transmission cost between the backbone and local transmission functions. My methodology is consistent with the embedded cost methodology adopted for the currently effective Triennial Cost Allocation Proceeding (TCAP), which was approved by D.14-06-007.

**II. DATA SOURCE FOR EMBEDDED COST STUDY**

Consistent with the embedded cost study presented in the TCAP Phase 1 Application (A.) 14-12-017 for the storage function, the starting point for these embedded cost studies is the total recorded costs for calendar year 2013. These costs are presented in SoCalGas' and SDG&E's *2013 Annual Report to the Commission* (FERC Form 2). These accounts provide sufficient detail to determine plant-in-service (capital-related), Operation & Maintenance (O&M), and Administrative and General (A&G) expenses that comprise base margin costs.

**III. SOCALGAS TRANSMISSION EMBEDDED COST STUDY**

Table 1 in Appendix A shows the 2013 SoCalGas Utility Gas Plant in Service by FERC Account prepared by the Plant Accounting group.

**A. Capital-Related Cost of Service**

The annual capital-related costs are comprised of the following:

1. Depreciation expense
2. Return on rate base

1                   3. Federal and state income taxes, property taxes

2                   **1. Depreciation expense**

3                   The cost of utility plant is recovered in rates through an annual depreciation expense over  
4 the book life of the investment. The annual depreciation expense of a utility plant is specific to  
5 the type of facility or equipment in service. SoCalGas' Plant Accounting Department provided  
6 the annual depreciation expense and total accumulated depreciation by FERC account category  
7 for 2013 as shown in Table 1 in Appendix A. Total transmission depreciation of \$41.3 million  
8 includes approximately \$35.3 million from transmission plant plus \$6 million<sup>1</sup> from general plant  
9 allocated based on a labor factor.

10                   **2. Return on Rate Base**

11                   The second capital-related expense is the annual authorized rate of return on rate base.  
12 These charges are designed to cover the utility's cost of capital (the cost of debt and equity) paid  
13 to bondholders and shareholders to finance the investments made in utility plant and equipment.  
14 SoCalGas' weighted average rate base of \$3,510 million in 2013 is provided by Plant Accounting  
15 as shown in Table 1 in Appendix A.

16                   The 2013 average recorded rate base of \$3,510 million is multiplied by the authorized  
17 8.02 percent return on investment specified in D.12-12-034.<sup>2</sup> This rate of return is used to  
18 calculate the return on rate base for each investment category. The total return on equity and cost  
19 of debt is \$282 million based on SoCalGas' recorded rate base of \$3,510 million in 2013 (\$3,510  
20 million x 8.02% = \$282 million).

21                   Table 1 shows the components of SoCalGas' rate base based on the percentage of each  
22 category's net book value to total SoCalGas net book value: transmission plant, which is

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<sup>1</sup>See Appendix B, Footnote 1.

<sup>2</sup>D.12-12-034, Ordering Paragraph 3.

1 recorded in FERC Accounts 365 through 372, is \$557 million; transmission's return on rate base  
 2 is \$44.7 million based on transmission's 2013 rate base of \$557 million shown in Table 1 (\$557  
 3 million x 8.02% = \$44.7 million). \$1.2 million<sup>3</sup> from general plant return is allocated to  
 4 transmission based on labor factor, resulting in total transmission return of \$45.9 million. Table 2  
 5 summarizes return on rate base.

<b>Table 2</b>					
<b>2013 SoCalGas Return on Rate Base</b>					
	(A)	(B)	(C)= (A)x(B)	(D)	(E)= (C)+(D)
	Rate Base	Rate of Return	Return on Rate Base	Allocated General Plant Return	Total Return
	(\$MM)	(%)	(\$MM)	(\$MM)	(\$MM)
Total SoCalGas	3,510	8.02%	281.8	N/A	281.8
Transmission	557	8.02%	44.7	1.2	45.9

### 6 **3. Federal and State Income Taxes, Property Taxes**

7 In 2013, SoCalGas' capital-related taxes (comprised of federal, state and property taxes)  
 8 were \$12 million.<sup>4</sup> These taxes are allocated to transmission as follows: \$12 million x 16%<sup>5</sup> =  
 9 \$1.9 million. Taxes related to general plant of \$0.04 million are allocated to transmission  
 10 resulting in a total of \$1.94 million of transmission capital-related taxes.

11 Therefore, 2013 total capital-related costs for transmission are \$89.1 million, as shown in  
 12 Table 3 below.

13 <sup>3</sup>See Appendix B, Footnote 3.

<sup>4</sup> 2013 SoCalGas FERC Form 2, p. 263a, Federal Income Tax-\$65,416,558 (refund of prepaid taxes),  
 Line 2 + Calif Corp Franchise Tax \$33,528,894, Line 9 + Property Tax 43,628,909, Line 14.

<sup>5</sup> Transmission's percent of total SoCalGas NBV from Appendix A, Table 1.

1

<b>Table 3</b>	
<b>2013 Transmission Capital-Related Costs</b>	
<b>(\$MM)</b>	
Depreciation <sup>6</sup>	41.3
Return <sup>7</sup>	45.9
FIT, SIT & Property Taxes	1.9
Total	89.1

2

**B. Gas Operation and Maintenance Expenses**

3

**1. Transmission O&M Expenses**

4

In 2013, transmission O&M expenses (recorded in FERC Accounts 850-867) were \$112.8 million, including payroll taxes. This total excludes \$346,647 in transmission compressor station fuel in FERC Account 854-855 because these costs are recovered in a transmission in-kind fuel charge. Details of storage O&M costs by FERC Account are shown in Table 4 in Appendix A.

8

**2. Miscellaneous Revenues**

9

Miscellaneous revenues allocated to the transmission function are \$2.2 million in 2013 out of a total of \$52.3 million<sup>8</sup> of miscellaneous revenues derived from common technology-related equipment and other assets. These revenues are credited in the same manner that Administrative and General (A&G) expenses are allocated.

13

**3. Administrative and General Expenses**

14

A&G expenses are recorded in FERC Accounts 920 through 932. 2013 recorded A&G expenses plus A&G-related payroll taxes totaled \$365 million, which excludes \$45 million of franchise fees recorded in FERC Account 927 because these costs are accounted for in the

16

<sup>6</sup> Source: Appendix A, Table 1; Appendix B, Footnote 1.

<sup>7</sup> Source: Table 2.

<sup>8</sup> Revenue from shared computer hardware, software, and communication equipment of \$49.3 million, amortization of gain on sale of property of \$3 million.  
{Source: A14-11-004, Exhibit No: (SCG-32-WP), pages 24,42.}

franchise and uncollectible factor in the rate design process. A&G details are shown in Table 5 in Appendix A.

A&G costs are allocated based on the approach adopted in D.14-06-007 and D.09-11-006.<sup>9</sup> Pursuant to these two decisions, 50% of A&G expenses are allocated to end users. Because labor is the best single factor that explains A&G costs, the remaining \$183 million of A&G is allocated to the transmission function based on labor factors shown in Table 6. Table 6 shows transmission has 8.3% of SoCalGas' labor costs, and, therefore, \$15.2 million of A&G (.083 x 183 million) is allocated to transmission.

<b>Table 6</b>			
<b>2013 SoCalGas Labor Factors to Allocate A&amp;G</b>			
	Labor Costs <sup>10</sup>	Labor %	Allocated A&G Costs
	(\$MM)		(\$MM)
Storage	15.8	4.2%	7.6
Transmission	31.6	8.3%	15.2
Distribution, Customer Accounts/Service & Information	332.3	87.5%	160.2
Total	379.7	100.0%	183.0

Table 7 summarizes the O&M, A&G expenses, and miscellaneous revenues for SoCalGas' transmission function.

<b>Table 7</b>	
<b>2013 Transmission O&amp;M, A&amp;G, Miscellaneous Rev.</b>	
	(\$MM)
O&M Expenses <sup>11</sup>	112.8
A&G Expenses <sup>12</sup>	15.2
Miscellaneous Rev.	(2.2)
Total	125.8

<sup>9</sup> D.09-11-006, 2009 BCAP Phase 2 Settlement Agreement, Attachment 3.

<sup>10</sup> 2013 SoCalGas FERC Form 2, p. 355, lines 52-57, col. (b).

<sup>11</sup> Source: Appendix A, Table 4.

<sup>12</sup> Source: Table 6.

1 Table 8 summarizes SoCalGas' 2013 Embedded Transmission Costs.

<b>Table 8</b>	
<b>2013 Embedded Transmission Costs</b>	
	(SMM)
Capital-related Costs <sup>13</sup>	89.1
O&M, A&G Expenses <sup>14</sup>	125.8
Total	214.9

2 **IV. SDG&E TRANSMISSION EMBEDDED COST STUDY**

3 Table 9 in Appendix C shows 2013 SDG&E Utility Gas Plant in Service by FERC  
4 Account prepared by the Plant Accounting group.

5 **A. Capital-Related Cost of Service**

6 As with SoCalGas' assets, SDG&E's annual transmission capital-related costs are  
7 comprised of the following:

- 8 1. Depreciation expense
- 9 2. Return on rate base
- 10 3. Federal and state income taxes, property taxes

11 **1. Depreciation**

12 SDG&E's gas transmission depreciation expense shown in Table 9 is \$7.8 million.  
13 \$1.2 million<sup>15</sup> from general/common plant is allocated to this for a total of \$9.0 million.

14 **2. Return on Rate Base**

15 The components of SDG&E's Weighted Average Rate Base provided by Plant  
16 Accounting (shown in Table 9) are based on the percentage of each category's net book value to  
17 SDG&E's net book value for gas operations.

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<sup>13</sup> Source: Table 3.

<sup>14</sup> Source: Table 7.

<sup>15</sup> See Appendix B, Footnote 15.



1 The 2013 average recorded rate base of \$531.4 million is multiplied by the authorized  
 2 7.79 percent return on investment specified in D.12-12-034, Ordering Paragraph 2. This rate of  
 3 return is used to calculate the return on rate base. The total return on equity and cost of debt is  
 4 \$41.4 million based on SDG&E's recorded rate base of \$531.4 million in 2013 (\$531.4 million x  
 5 7.79% = \$41.4 million). Transmission's return on rate base is \$6.7 million based on  
 6 transmission's 2013 rate base of \$86.1 million shown in Table 10 (\$86.1 million x 7.79% = \$6.7  
 7 million). \$0.2 million<sup>16</sup> from general/common plant return is allocated to transmission based on  
 8 labor factor, resulting in total transmission return of \$6.9 million. Table 10 summarizes return on  
 9 rate base.

<b>Table 10</b>					
<b>2013 SDG&amp;E Return on Rate Base</b>					
	(A)	(B)	(C)=(A)x(B)	(D)	(E)= (C) +(D)
	Rate Base	Rate of Return	Return on Rate Base	Allocated General Plant Return	Total Return
	(\$MM)	(%)	(\$MM)	(\$MM)	(\$MM)
Total SDG&E	531.4	7.79%	41.4	N/A	41.4
Transmission	86.1	7.79%	6.7	0.2	6.9

### 10 3. Federal, State Income and Property Taxes

11 In 2013, SDG&E's federal and state income taxes for gas operations totaled \$14.2  
 12 million.<sup>17</sup> In addition, SDG&E's ad valorem (property) taxes totaled \$9.5 million<sup>18</sup> in 2013,  
 13 resulting in capital-related taxes of \$23.7 million. These taxes are allocated to transmission as

<sup>16</sup> See Appendix B, footnote 16.

<sup>17</sup> 2013 SDG&E FERC Form 1, Pages 114-115, Lines 15-19, under "Current Year to Date" which total to \$14,226,078 for year ending 12-31-2013.

<sup>18</sup> 2013 SDG&E FERC Form 1, Selected Financial Data, Income Statement Data (CA Intrastate Operations), p.2 of 2, line 29 = \$9,516,286.

follows: \$23.7 million x 16.2%<sup>19</sup> = \$3.9 million. \$0.1 million of general/common plant taxes are allocated to transmission resulting in total transmission taxes of \$4.0 million as shown in

Table 11.

<b>Table 11</b>			
<b>2013 SDG&amp;E Federal, State Income &amp; Property Taxes</b>			
	(A)	(B)	C=(A) x (B)
	SDG&E	Transmission NBV	Transmission Taxes
	(\$MM)	(%)	(\$MM)
Federal, State, Prop. Taxes	23.7	16.2%	3.9
Allocated taxes from General Plant	N/A		0.1
Total	23.7		4.0

Table 12 shows that SDG&E gas transmission capital-related costs are \$19.9 million.

<b>Table 12</b>	
<b>2013 SDG&amp;E Capital-Related Costs</b>	
	(\$MM)
Depreciation <sup>20</sup>	9.0
Return <sup>21</sup>	6.9
FIT, SIT & Ad valorem Taxes <sup>22</sup>	4.0
Total	19.9

## **B. SDG&E Gas O&M and A&G Expenses**

### **1. Transmission O&M Expenses**

Transmission O&M expenses are included in FERC Accounts 850 to 867. Recorded O&M expenses were \$14.1 million in 2013 (including O&M-related payroll taxes) as shown in

<sup>19</sup> Source: Appendix C, Table 9, Transmission net book value = 16.2% of total SDG&E NBV.

<sup>20</sup> Source: Appendix B, Footnote 15; Appendix C, Table 9.

<sup>21</sup> Source: Table 10.

<sup>22</sup> Source: Table 11.

1 Table 13 in Appendix C. This total excludes \$276,506 in transmission compressor station fuel in  
2 FERC Accounts 854 and 855 since these costs are excluded from base margin.

## 3 **2. Administrative and General Expenses**

4 A&G expenses are included in FERC Accounts 920 to 932 and came to a total of \$71.7  
5 million in 2013 (including A&G-related payroll taxes), as shown in Table 14 in Appendix C.

6 A&G expenses include general management salaries and expenses; pensions and benefits;  
7 insurance expenses; and outside service expenses, as well as shared service costs.

8 Similar to SoCalGas, SDG&E's A&G expenses are allocated in a manner consistent with  
9 D.14-06-007 and D.09-11-006. Because transmission labor costs represent 12.3% of SDG&E's  
10 labor costs, this percentage is applied as follows:  $\$71.7 \text{ million} \times 50\% \times 12.3\% = \$4.4 \text{ million}$ .

11  
12 Table 15 summarizes 2013 O&M, A&G and miscellaneous revenues for SDG&E's gas  
13 transmission.

	(\$MM)
O&M Expenses <sup>23</sup>	14.1
A&G Expenses <sup>24</sup>	4.4
Miscellaneous Rev.	(0.2)
Total	18.3

<sup>23</sup> Source: Table 13.

<sup>24</sup> Source: Table 14.

Table 16 summarizes 2013 SDG&E embedded cost for gas transmission.

<b>Table 16</b>	
<b>2013 SDG&amp;E Embedded Transmission Cost</b>	
	(\$MM)
Capital-related Costs <sup>25</sup>	19.9
O&M, A&G Expenses <sup>26</sup>	18.3
Total	38.2

**V. BACKBONE AND LOCAL TRANSMISSION COSTS**

Table 17 shows that SoCalGas’ embedded transmission cost is \$214.9 million,<sup>27</sup> comprised of \$89.1 million capital-related costs and \$125.8 million O&M/A&G expenses. The embedded cost of SDG&E’s gas transmission system is \$38.2 million,<sup>28</sup> comprised of \$19.9 million capital-related costs and \$18.3 million O&M/A&G expenses. The 2013 embedded cost of the integrated transmission system is \$253.1 million, as shown in Table 17. As is currently done today, SoCalGas and SDG&E recommend that the total transmission cost be maintained at the level shown in Table 17 until another embedded cost study is performed for the next TCAP period.

<b>Table 17</b>			
<b>2013 SoCalGas &amp; SDG&amp;E Transmission Costs</b>			
	(A)	(B)	(C) = (A) + (B)
	SoCalGas	SDG&E	Total
	(\$MM)	(\$MM)	(\$MM)
Capital-related Costs	89.1	19.9	109.0
O&M, A&G Expenses	125.8	18.3	144.1
Total	214.9	38.2	253.1

<sup>25</sup> Source: Table 12.

<sup>26</sup> Source: Table 15.

<sup>27</sup> Source: Table 8.

<sup>28</sup> Source: Table 16.

1 SoCalGas' engineering staff examined each transmission pipeline individually and  
2 categorized each based on functional definitions. Pipelines are classified as backbone  
3 transmission if they receive gas from receipt points and transport it to SoCalGas' storage fields  
4 and local transmission system. Local transmission pipelines transport gas from backbone  
5 pipelines and storage fields to the distribution system. All of SoCalGas' and SDG&E's  
6 compressor stations are classified as backbone transmission facilities. All of SDG&E's gas  
7 transmission pipelines are classified as backbone pipelines, but a significant number of SoCalGas'  
8 transmission pipelines perform a local transmission function. Appendix D identifies SoCalGas'  
9 backbone and local transmission pipelines by line number.

10 Table 3 shows SoCalGas' transmission capital-related cost of \$89.1 million. The  
11 backbone portion of capital-related cost is calculated from the transmission net book value and  
12 transmission depreciation expense of SoCalGas' backbone facilities. The net book values of  
13 these backbone transmission lines and compressor stations represent 64% of SoCalGas'  
14 transmission net book value. The depreciation expenses of these backbone lines and compressor  
15 stations represent 69% of SoCalGas' transmission depreciation expense. These percentages result  
16 in a weighted average of backbone capital-related cost of 66% relative to SoCalGas' total  
17 transmission capital-related cost, or \$58.8 million.

18 SoCalGas' transmission A&G and O&M expenses are \$125.8 million.<sup>29</sup> Pipeline mileage  
19 is used to allocate A&G and O&M costs between the backbone (71%) and local (29%)  
20 transmission pipelines. The resulting backbone transmission portion of A&G and O&M expenses  
21 is \$89.3 million. The total embedded cost of backbone transmission for SoCalGas is therefore  
22 \$148.1 million, and \$186.4 million for the two utilities combined, as shown in Table 18.

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23 <sup>29</sup> Source: Table 7.

<b>Table 18</b>					
<b>Total Backbone Transmission Costs</b>					
	(A)	(B)	(C) = (A) x (B)	(D)	(E) = (C) + (D)
	SoCalGas Transmission	Backbone Transmission	SoCalGas Backbone	SDG&E Transmission <sup>30</sup>	Total Backbone Transmission
	(\$MM)	(\$MM)	(\$MM)	(\$MM)	(\$MM)
Capital-related Costs	89.1	66.0%	58.8	19.9	78.8
O&M, A&G Expenses	125.8	71.0%	89.3	18.3	107.6
Total	214.9		148.1	38.2	186.4

**A. Straight Fixed-Variable (SFV), Modified Fixed-Variable (MFV) and Interruptible (IT) Rates**

SoCalGas and SDG&E propose continuing a straight fixed-variable (SFV) rate by dividing total backbone costs by a proposed denominator of 2,818 thousand decatherms per day (MDth/d), resulting in a Backbone Transportation Service (BTS) rate of \$0.181/decatherm (Dth), as shown in Table 19.

<b>Table 19</b>			
<b>Proposed Firm BTS Rate</b>			
Total Backbone Costs	Proposed Throughput Assumption	Proposed Annual Throughput Assumption	Proposed BTS Rate
(\$MM)	MDth/d	MDth	\$/Dth
186.4	2,818	1,028,420	0.181

The proposed denominator of 2,818 MDth/d represents an estimated average BTS subscription/utilization<sup>31</sup> from October 1, 2014, through September 30, 2015. This estimate is based on BTS firm SFV contracts, scheduled MFV, and interruptible throughput from October 1,

<sup>30</sup> Source: Table 18.

<sup>31</sup> SFV subscription, MFV and IT utilization.

1 2014, through May 31, 2015, which are extrapolated for the remaining four months to September  
2 30, 2015. This minor change in the method for determining the BTS denominator, which  
3 currently includes BTS MFV contract volumes rather than scheduled volumes, is appropriate  
4 because it safeguards that the BTS rates are designed to more closely recover allocated costs.

5 Table 20 below shows a comparison of MFV throughput during an eight-month period  
6 within each of the last two subscription seasons. MFV throughput increased more than ten-fold  
7 while SFV reservations dropped by 67%. This is primarily due to the implementation of  
8 D.14-06-007,<sup>32</sup> which reduced the 100% load factor MFV rate from 104% to 100% of the SFV  
9 reservation rate for BTS service. An unintended consequence, however, is that it leads to an  
10 under-recovery of costs if the capacity reservations for MFV contract volumes are used in the  
11 denominator for SFV and MFV rates. Table 20 also shows that only 93% of MFV contract  
12 volumes were scheduled from October 2014 to May 2015. This 7% under-delivery relative to the  
13 contract volume is intended to recover 20% of the costs allocated to the MFV contracts.  
14 Therefore, in order to minimize under-collections caused by a considerably higher percentage of  
15 MFV contracts than in the past, SoCalGas and SDG&E propose that the denominator should  
16 include firm SFV contracts, scheduled MFV and interruptible throughput. Alternatively, the  
17 Commission could reverse D.14-06-007 and once again set the MFV rate to be 104% of the SFV  
18 rate.

19  

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<sup>32</sup> D.14-06-007, Attachment III, Settlement Agreement, Section II. B.4.f.

**Table 20**  
**MFV Throughput Comparison**

	Oct. 2013 - May 2014		Oct. 2014 - May 2015	
	Dth/day	%	Dth/day	%
SFV contract	2,217,727	84	737,147	28
MFV scheduled	161,208	6	1,812,951	68
Interruptible	271,101	10	115,848	4
Total	2,650,036	100	2,665,946	100
MFV contract	170,202		1,953,383	
% MFV scheduled		95		93

Prior to implementation of BTS rates in 2017, this throughput denominator will be updated to reflect average BTS utilization for the 12 months of the prior October through September.<sup>33</sup> Although the proposed BTS rate of \$0.181/Dth would be adjusted to account for any backbone transmission-related under/over-collection recorded in the Backbone Transmission Balancing Account (BTBA),<sup>34</sup> SoCalGas and SDG&E recommend that the \$186.4 million remain fixed until another embedded cost study is performed for the next TCAP period. Consistent with current practice, SoCalGas and SDG&E also propose interruptible rates be equivalent to 100% load factor for SFV rates.<sup>35</sup>

**B. Allocation of BTS Discounts**

SoCalGas filed Advice Letter (AL) 4517 on July 2, 2013, requesting authority to revise Rate Schedule G-BTS to allow for discounted firm BTS contracts without alternate receipt point rights, which would provide the System Operator with another potential tool to help maintain

<sup>33</sup> D.11-04-032, Attachment 2, Exhibit JRR-1, Section 3; D.14-06-007, Attachment III, Settlement Agreement, Section II. B.4.a.

<sup>34</sup> D.11-04-032, Attachment 2, Exhibit JRR-1, Section 3; D.14-06-007, Attachment III, Settlement Agreement, Section II. B.4.b.

<sup>35</sup> D.11-04-032, Attachment 2, Exhibit JRR-1, Section 2.c.; D.14-06-007, Attachment III, Settlement Agreement, Section II. B.4.c.



1 minimum flows on the Southern System. Prior to submitting AL 4517, SoCalGas had authority to  
2 offer discounted interruptible BTS contracts as well as discounted firm BTS contracts with  
3 alternate receipt point rights. The Commission approved AL 4517, with modifications, by  
4 Resolution G-3488. In allowing SoCalGas to offer discounted firm BTS contracts without  
5 alternate receipt point rights, the Commission directed SoCalGas to record any such discounts in a  
6 new subaccount in the BTBA and to address their allocation in this TCAP. SoCalGas was  
7 authorized to continue the current practice of allocating interruptible BTS discounts and firm  
8 discounts with alternate receipt point rights in the BTBA, but was directed to address the future  
9 allocation of these discounts in this TCAP as well.

10 The precursor to the BTBA was established by the Commission in the Firm Access Rights  
11 Decision, D.06-12-031. The account was originally called the Firm Access Rights Balancing  
12 Account (FARBA), but was renamed the BTBA in D.11-04-032. In the FAR Update proceeding  
13 (A.10-03-028), the Commission reestablished that all BTS costs and revenues flow through the  
14 BTBA.<sup>36</sup> Consistent with current practice, SoCalGas and SDG&E propose that all discounts to  
15 interruptible and firm BTS contracts (with and without alternate receipt point rights) be included  
16 in the BTBA, which will be reflected in the BTS rate the following year.<sup>37</sup>

17  
18 This concludes my prepared direct testimony.  
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<sup>36</sup> D.11-04-032, mimeo, at 56.

<sup>37</sup> See Footnote 34.

1 **VI. QUALIFICATIONS**

2 My name is Sim-Cheng Fung. My business address is 555 West Fifth Street,  
3 Los Angeles, California, 90013-1011. I am employed by SoCalGas as a Senior Market Advisor II  
4 in the Energy Markets and Capacity Products Department.

5 I graduated with a Bachelor of Arts degree from Wellesley College and a Master of  
6 Business Administration degree in Finance from the University of California, Los Angeles. I  
7 have been employed by SoCalGas since 1981, and have held positions of increasing responsibility  
8 in the Treasury, Strategic Planning, Gas Supply, Operations Staff, Gas Acquisition and Energy  
9 Markets & Capacity Products departments. I have been a Senior Market Advisor since 1998 and  
10 am responsible for providing analytical support to the Capacity Products Group.

11 I have previously testified before the California Public Utilities Commission.

# VII. APPENDIX A

## Selected SoCalGas Tables

### Table 1



Sempra Energy utility

SOUTHERN CALIFORNIA GAS COMPANY  
2013 Utility Gas Plant in Service  
By FERC Account for FERC Form 2  
(Thousands of Dollars)

ACCOUNT	ACCT NO.	As of December 31, 2013			Book Value Allocator	12/31/13 Weighted Avg Rate Base	For the Year Ended 2013 DEPRECIATION EXPENSE
		INVESTMENT	ACCUM DEP	NET BOOK VALUE			
<b>Intangible</b>							
	301	76	-	76			-
	302	569	-	569			-
Total Intangible		646	-	646	0.0%	324	-
<b>Gas Production</b>							
	325	15	-	15			-
	330	5,557	(1)	5,556			-
	331	455	(0)	455			-
	332	1,731	-	1,731			-
	334	536	-	536			-
	336	485	-	485			-
Total Gas Prod		8,780	(1)	8,778	0.1%	4,408	-
<b>Underground Storage</b>							
	117.1	58,549	-	58,549			-
	350	22,501	-	22,501			-
	351	41,641	(19,759)	21,882			1,239
	352	279,338	(167,005)	112,333			6,987
	353	105,718	(93,440)	12,278			776
	354	137,678	(63,501)	74,177			1,444
	355	6,217	(1,738)	4,479			250
	356	129,485	(66,034)	63,451			3,111
	357	28,975	(7,356)	21,619			1,528
	358	49,599	39,431	89,030			-
Montebello							2,005
Total Underground Storage		859,700	(379,402)	480,298	6.9%	241,200	17,340
<b>Transmission</b>							
	365	24,528	(15,077)	9,451			446
	366	35,154	(20,867)	14,287			465
	367	1,361,164	(578,873)	782,292			30,174.71
	368	206,667	(106,710)	99,957			2,712
	369	63,176	(26,635)	36,541			1,332
	371	5,181	(2,714)	2,466			203
	372	43,448	121,081	164,530			-
Total Transmission		1,739,319	(629,795)	1,109,523	15.9%	557,189	35,333
<b>Distribution</b>							
	374	31,685	(12)	31,673			-
	375	243,599	(68,529)	175,070			6,810
	376	3,385,953	(1,974,040)	1,411,913			79,275
	378	87,964	(59,343)	28,621			4,394
	380	2,210,344	(1,833,257)	377,087			71,454
	381	560,595	(128,520)	432,075			15,229
	382	341,940	(146,975)	194,965			5,906
	383	134,134	(56,722)	77,411			3,188
	387	31,642	(21,024)	10,618			(180)
	388	520,445	1,477,531	1,997,976			-
Total Distribution		7,548,301	(2,810,891)	4,737,410	67.8%	2,379,069	186,076
<b>General Plant</b>							
	389	1,417	-	1,417			-
	390	182,426	(153,701)	28,725			22,547
	391	832,683	(335,532)	497,151			98,919
	392	574	(6)	568			87
	393	101	(29)	72			5
	394	54,237	(25,246)	28,990			2,300
	395	5,469	(3,360)	2,109			259
	396	12	11	23			3
	397	142,888	(51,404)	91,485			19,471
	398	3,305	(148)	3,157			469
	399.1	544	(936)	(392)			-
Total General Plant		1,223,656	(570,350)	653,306	9.3%	328,082	144,061
Other Storage Plant		-	-	-			-
Total Utility Gas Plant In Service		11,380,401	(4,390,440)	6,989,961	100.0%	3,510,272	382,810

## VII. APPENDIX A (cont'd)

<b>Table 4</b>	
<b>2013 SoCalGas Transmission O&amp;M Expenses</b>	
Transmission	(\$MM)
850 Tran Op-Supervision & Engineering (Including Payroll Taxes)	\$28.762
851 Tran Op-System Control & Load Dispatching	\$2.885
852 Tran Op-Communication System Expenses	\$0.000
853 Tran Op-Compressor Station Labor & Expenses	\$3.132
854&855 Tran Op-Gas From Comp Sta Fuel (Excluded from base margin)	\$0.000
856 Tran Op-Mains Expenses	\$9.486
857 Tran Op-Measuring & Regulating Station Expenses	\$1.979
858 Tran Op-Transmission & Compression Of Gas By Other	\$0.000
859 Tran Op-Other Expenses (Excl Haz Waste from base margin)	\$2.203
860 Tran Op-Rents	\$4.896
861 Maintenance Supervision & Engineering	\$0.000
862 Tran Mnt-Structures & Improvements	\$0.000
863 Tran Mnt-Mains	\$52.013
864 Tran Mnt-Compressor Station Equipment	\$6.495
865 Tran Mnt-Measuring & Regulating Station Equipment	\$0.601
866 Tran Mnt of Communication Equipment	\$0.059
867 Tran Mnt-Other Equipment	\$0.309
Total	\$112.820

Source: FERC Form 2

<b>Table 5</b>	
<b>2013 SoCalGas A&amp;G Expenses</b>	
A&G FERC Account	(\$MM)
920 AdmGen Op-Salaries (Incl. Payroll Taxes)	51.447
921 AdmGen Op-Office Supplies & Expenses	14.520
922 AdmGen Op-(Less) Administrative Exp Transferred	(6.349)
923 AdmGen Op-Outside Services Employed – General	72.630
924 AdmGen Op-Property Insurance	3.256
925 AdmGen Op-Injuries & Damages	34.068
926 AdmGen Op-Employee Pensions & Benefits	142.537
927 AdmGen Op-Franchise Requirements	0.000
928 AdmGen Op-Regulatory Commission Expenses	5.205
930.2 A&G Op-MiscGen Exp(Exclude Public Purpose RDD)	9.391
931 AdmGen Op-Rents	17.483
932 AdmGen Mnt-General Plant	21.243
Total	365.432

Source: FERC Form 2

## VIII. APPENDIX B

### Selected SoCalGas/SDG&E Footnotes

Footnotes:

General/Common Plant are primarily comprised of office furniture and equipment, structures and improvement, tools and communication equipment, all of which are directly linked to labor. As such, allocation of general/common plant costs is consistent with that of administrative and general (A&G) expenses described in Section IV.B.4.

Footnote		50% General Plant Depreciation (\$MM)	% of Labor	Allocated General Plant Depreciation (\$MM)
1	SCG Transmission	\$72	8.3	\$6
15	SDG&E Transmission	\$10	12.3	\$1.2

Footnote		50% General Plant Return	% Labor	Allocated General Plant Return
3	SCG Transmission	\$13.4	8.3	\$1.2
16	SDG&E Transmission	\$1.9	12.3	\$0.2

## IX. APPENDIX C

### Selected SDG&E Tables

**Table 9**  
**SAN DIEGO GAS & ELECTRIC COMPANY**  
**2013 Utility Gas Plant in Service**  
**By FERC Account for FERC Form 2**  
**(\$000)**

As of December 31, 2013				12/31/2013	For the Year Ended 2013	
ACCOUNT	INVESTMENT	ACCUM DEP	NET BOOK VALUE	Book Value Allocator	Weighted Average Rate Base	DEPRECIATION EXPENSE
SDGE						
<b>Transmission</b>						
365.1- Land	4,649	-	4,649			
365.2- Rights-of-way	2,218	(1,267)	951			
366- Structures & Improvements	11,710	(9,625)	2,085			
367- Mains	169,757	(61,240)	108,517			
368- Compressor Station Eq	82,026	(63,027)	18,999			
369- Meas & Reg Station Eq	19,772	(15,170)	4,602			
372- Asset Retirement Costs for Transmission Plant	1,601	(1,456)	145			
<b>Total Transmission</b>	<b>291,734</b>	<b>(151,785)</b>	<b>139,949</b>	<b>16.2%</b>	<b>86,105</b>	<b>7,780</b>
<b>Distribution</b>						
374.2- Land and Land Rights	8,151	(6,287)	1,865			
374.1- Land and Land Rights	102	-	102			
375- Structures & Improvements	43	(61)	(18)			
376- Mains	581,854	(331,989)	249,865			
378- Meas & Reg Stations	17,004	(6,909)	10,095			
380- Services	246,402	(285,319)	(38,918)			
381- Meters & Regulators	146,138	(42,564)	103,574			
382- Meter Installations	88,354	(28,703)	59,651			
385- Industrial Meas & Reg Station Eq	1,517	(1,077)	440			
387.11- Other Equipment	994	(649)	345			
387- CNG Sta on SDGE Property	3,571	(3,411)	161			
388- Asset Retirement Costs for Distribution Plant	54,709	204,019	258,728			
<b>Distribution Net Plant Total</b>	<b>\$1,148,840</b>	<b>(\$502,950)</b>	<b>\$645,890</b>	<b>74.8%</b>	<b>397,391</b>	<b>23,534</b>
<b>General Plant</b>						
392- Transportation Eq	75	(100)	(26)			
394- Tools, Shop, & Garage Eq	7,976	(3,377)	4,600			
395- Laboratory Eq	283	(258)	25			
396- Power Operated Eq	162	(132)	31			
397- Communication Eq	1,965	(732)	1,233			
398- Misc Equipment	198	(74)	125			
<b>General Plant Total</b>	<b>10,659</b>	<b>(4,672)</b>	<b>5,987</b>			<b>586</b>
Common plant			\$71,889	9.0%	47,914	\$19,404
<b>Total Utility Gas Plant In Service</b>	<b>1,451,233</b>	<b>(659,408)</b>	<b>863,715</b>	<b>100.0%</b>	<b>531,411</b>	<b>51,304</b>

**IX. APPENDIX C (cont'd)**

<b>Table 13</b>	
<b>2013 SDG&amp;E Gas Transmission Expenses</b>	
	(\$000)
850- Oper Supervision & Eng (Incl Payroll Taxes)	\$3.249
851- Sys Control & Load Dispatching	\$0.715
852- Communication Sys Exp	\$0.000
853- Compr Station Labor & Exp	\$2.320
854- Gas Comp Sta Fuel-excl	\$0.000
855- Other Fuel & Power for Compr Stations	\$0.000
856- Mains Expenses	\$0.947
857- Meas & Reg Station Exp	\$0.007
858- Trans & Compression of Gas by Others	\$0.000
859- Other Expenses less Haz Mat	\$1.052
860- Rents	\$0.003
861- Maint Supervision & Eng	\$0.215
862- Maint Structure & Improvements	\$0.000
863- Maint of Mains	\$3.917
864- Maint of Compr Station Eq	\$0.775
865- Maint of Meas & Reg Station Eq	\$0.252
866- Maint Comm Equip	\$0.007
867- Maint of Other Eq	\$0.681
Total	\$14.139

Source: FERC Form 2

<b>Table 14</b>	
<b>2013 SDG&amp;E A&amp;G Expenses</b>	
	(\$000)
920- A&G Salaries (Incl Payroll Taxes)	\$0.618
921- Office Sply & Exp less Hazardous Waste	\$0.290
922- Transferred Admin Exp less Haz Waste	(\$0.178)
923- Outside Services Employed	\$1.683
924- Property Insurance	(\$0.002)
925- Injuries & Damages less Haz Waste	\$0.269
926- Employee Pensions less Haz Waste	\$1.167
928- Reg Commission Exp	\$0.196
930.1- Gen Advr Exp	\$0.000
930.2- Misc General Exp	\$0.036
931- Rents	\$0.190
932- Maint.of General Plant	\$0.156
Total A&G	\$4.424

Source: FERC Form 2

**X. APPENDIX D**

<b>SoCalGas' Backbone Pipelines</b>	
53	1221
85	1229
90	2000
103	2001
119	2005
127	2051
169	3000
174	3003
203	3006
225	3008
235	3009
245	4000
247	4002
293	5000
294	5002
300	5010
303	5012
309	5015
324	5034
335	5036
404	5041
406	5043
963	6900
1004	6901
1005	6904
1027	6905
1028	6906
1030	6907
1031	6916
1180	7039
1181	7053
1185	7200
1186	8100
1187	8105
1192	8106
1201	8107
1215	8108
1216	8109
1220	8110

<b>SoCalGas' Local Pipelines</b>		
12	1029	3004
104	1129	3005
115	1132	3007
133	1167	6000
145	1170	6001
160	1171	6902
173	1172	6903
202	1173	6911
214	1174	6912
222	1175	6913
317	1176	6914
321	1200	6915
324	1202	7000
325	1203	7025
404	1205	7038
406	1207	7042
407	1209	7043
408	1211	7044
512	1218	7049
765	1219	7051
767	1230	7052
775	1232	7054
800	1233	7055
1003	1234	7056
1010	1236	7058
1011	1240	7059
1013	1241	7067
1014	1242	8032
1015	1243	8038
1016	1244	8045
1017	2000	8112
1018	2001	
1019	2002	
1020	2003	
1021	2006	
1022	2007	
1023	3000	
1024	3001	
1025	3002	
1026	3003	