

Application No: A.15-07-014  
Exhibit No.: \_\_\_\_\_  
Witness: Jason Bonnett

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.15-07-014  
(Filed July 8, 2015)

**REVISED PREPARED DIRECT TESTIMONY OF**  
**JASON BONNETT**  
**SOUTHERN CALIFORNIA GAS COMPANY**  
**AND**  
**SAN DIEGO GAS & ELECTRIC COMPANY**

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

November 19, 2015

## TABLE OF CONTENTS

I.	PURPOSE & OVERVIEW OF RATE DESIGN.....	1
A.	Overview.....	1
B.	Non-Margin Cost Allocation and Rate Design Proposals.....	1
C.	Illustrative Rates.....	2
II.	CORE RATE DESIGN.....	3
A.	Residential Rates.....	3
B.	Residential Customer Charge.....	4
1.	Residential Customer Charges Are an Accepted Cost Recovery Mechanism Throughout the United States.....	6
2.	Reducing Intra-Class Subsidies.....	8
3.	Reducing Bill Volatility.....	8
4.	Impacts on Conservation Efforts.....	9
5.	Bill Impacts of Proposed Residential Customer Charge.....	11
C.	Submeter Credits.....	12
D.	Core C&I Rates.....	13
E.	NGV Compression Cost Update.....	13
III.	NONCORE RATE DESIGN.....	15
A.	Noncore Distribution Rates.....	15
B.	Transmission Level Service Rates.....	15
IV.	OTHER PROPOSALS.....	15
A.	System Operator Gas Account.....	15
B.	Transmission Level Service Reservation Revenue Report.....	16
V.	QUALIFICATIONS.....	17

1 **REVISED PREPARED DIRECT TESTIMONY**

2 **OF JASON BONNETT**

3 **I. PURPOSE & OVERVIEW OF RATE DESIGN**

4 The purpose of my revised testimony is to present the proposed natural gas transportation  
5 rates of Southern California Gas Company (SoCalGas) and San Diego Gas & Electric Company  
6 (SDG&E) (collectively, Utilities). These rates rely upon the cost allocation of authorized base  
7 margin costs among customer classes, as shown in the prepared direct testimony of Dr.  
8 Chaudhury and Ms. Schmidt-Pines.

9 **A. Overview**

10 The SoCalGas and SDG&E rate design models take the allocated base margin provided  
11 by Dr. Chaudhury and Ms. Schmidt-Pines and incorporate the integration of transmission system  
12 costs along with the unbundling of the Backbone Transportation Service (BTS). Additionally,  
13 the SoCalGas rate design model allocates costs within the noncore market for the Transmission  
14 Level Service (TLS) rate and non-margin costs, which, for ratemaking purposes, reflect other  
15 costs incurred by the Utilities to provide basic transportation services to its customers during the  
16 forecasted cost allocation period. These non-margin costs reflect, but are not limited to,  
17 regulatory account balance amortizations, the gas-engine rate cap, and Enhanced Oil Recovery  
18 (EOR) revenue treatment. The SDG&E rate design model also incorporates non-margin costs,  
19 including regulatory account balance amortizations.

20 **B. Non-Margin Cost Allocation and Rate Design Proposals**

21 Except as noted below, the methods employed to develop and allocate non-margin costs  
22 are consistent with the methods employed to develop the SoCalGas and SDG&E's transportation  
23 rates adopted in California Public Utilities Commission (Commission) Decision (D.) 14-06-007,  
24 the most recent cost allocation proceeding decision.

1 My testimony incorporates the following non-margin cost allocation and rate design  
 2 proposals:

- 3 (1) Revise the tier differential calculation for SoCalGas and SDG&E;
- 4 (2) Increase the residential customer charge for SoCalGas;
- 5 (3) Implement a residential customer charge for SDG&E;
- 6 (4) Update the submeter credit;
- 7 (5) Update Natural Gas Vehicle (NGV) compression costs;
- 8 (6) Provide allocation method for the System Operator Gas Account; and
- 9 (7) Provide TLS Reservation Revenue Report.

10 **C. Illustrative Rates**

11 The non-margin cost allocation results are added to the results of the base margin cost  
 12 allocation to complete the transportation rate revenue requirement. The completed transportation  
 13 revenue requirement becomes the starting point for any rate design calculations.

14 Table 1 below shows the proposed changes in SoCalGas' class-average transportation  
 15 rates.

Table 1: Class Average Rates (\$/therm)				
	1/1/2015	TCAP Proposed	\$/th Change	% Change
<b>SCG:</b>				
Res	\$0.716	\$0.646	(\$0.070)	-10%
CCI CA	\$0.340	\$0.241	(\$0.099)	-29%
Gas A/C	\$0.141	\$0.095	(\$0.046)	-33%
Gas Engine	\$0.122	\$0.122	\$0.000	0%
NGV Uncompressed post-SW	\$0.130	\$0.077	(\$0.053)	-41%
Core Class Average	\$0.586	\$0.505	(\$0.081)	-14%
NCCI-D CA	\$0.070	\$0.059	(\$0.011)	-16%
EG-D Tier 1 post-SW	\$0.107	\$0.086	(\$0.021)	-19%
EG-D Tier 2 post-SW	\$0.036	\$0.031	(\$0.005)	-13%
TLS-CI CA Rate (w/ csitma & carb adders)	\$0.018	\$0.016	(\$0.002)	-11%
TLS-EG CA Rate (w/carb adder)	\$0.016	\$0.014	(\$0.002)	-12%
UBS \$1,000/yr	\$26,476	\$17,020	(\$9,456)	-36%
BTS w/BTBA \$/dth/d	\$0.158	\$0.187	\$0.029	19%
System Average Rate w/ BTS	\$0.248	\$0.231	(\$0.017)	-7%

1 The proposed rates include the regulatory account balance discussed in the testimony of  
 2 Mr. Ahmed and reflect a decrease in the natural gas transportation revenue requirement of \$188  
 3 million (approximately 7 percent).

4 Table 2 below shows the proposed changes in SDG&E’s class-average transportation  
 5 rates.

<b>Table 2: Class Average Rates (\$/therm)</b>				
	<b>1/1/2015</b>	<b>TCAP Proposed</b>	<b>\$/th Change</b>	<b>% Change</b>
<b><u>SDGE:</u></b>				
Res	\$0.921	\$0.742	(\$0.179)	-19%
CCI CA	\$0.349	\$0.165	(\$0.184)	-53%
NGV Uncompressed post-SW	\$0.132	\$0.076	(\$0.056)	-42%
Core Class Average	\$0.705	\$0.518	(\$0.187)	-27%
NCCI-D	\$0.054	\$0.017	(\$0.037)	-68%
EG-D Tier 1 post-SW	\$0.106	\$0.086	(\$0.020)	-19%
EG-D Tier 2 post-SW	\$0.036	\$0.031	(\$0.005)	-14%
TLS-CI CA Rate (w/ csitma & carb adders)	\$0.019	\$0.014	(\$0.005)	-25%
TLS-EG CA Rate (w/carb adder)	\$0.015	\$0.013	(\$0.002)	-12%
System Average Rate	\$0.305	\$0.228	(\$0.077)	-25%

6  
 7 The proposed rates include the regulatory account balance discussed in the testimony of  
 8 Ms. Niederle and reflect a decrease in the natural gas transportation revenue requirement of \$93  
 9 million (approximately 25 percent).

10 Appendix A contains a complete set of rate tables using the proposed cost allocation  
 11 method representing this proposal.

12 **II. CORE RATE DESIGN**

13 In this section, SoCalGas and SDG&E update their individual core rates. This section  
 14 describes specific changes to current rate design methods for core customers.

15 **A. Residential Rates**

16 These rates apply to three categories of residential customers: single-family, multi-  
 17 family, and small master-metered dwellings (master meters with loads less than 100,000 therms  
 18 of weather normalized usage for the past two calendar years). Current SoCalGas residential rates

1 consist of a \$0.16438 per-meter per-day customer charge and a two-tiered usage structure:  
2 baseline (BL) and non-baseline (NBL) volumetric rates. The current targeted composite tier  
3 differential between SoCalGas' BL and NBL transportation rates is 1.15 (*i.e.*, the NBL rate is 15  
4 percent higher than the composite BL rate).<sup>1</sup> The composite BL rate is equal to the sum of the  
5 customer charge revenues and BL volumetric rate revenues divided by the BL volumes;  
6 however, the rate difference between the BL and NBL is currently capped at \$0.26/therm.  
7 SoCalGas proposes to simplify the calculation by setting the tier differential between BL and  
8 NBL bundled rates (*i.e.*, transportation plus commodity) at \$0.26/ therm throughout this  
9 Triennial Cost Allocation Proceeding (TCAP) term, which is equal to the current tier differential  
10 limit. Using this methodology, the resulting bundled NBL rate is 36% higher than the resulting  
11 bundled BL rate.

12 For SDG&E, current residential rates also consist of a two-tiered usage structure: BL and  
13 NBL volumetric rates. The current tier differential between SDG&E's BL and NBL bundled  
14 rates is a factor of 1.14 (*i.e.*, the NBL rate is 14 percent higher than the BL rate). SDG&E  
15 proposes to utilize the same process as SoCalGas as discussed above. Using this methodology,  
16 the resulting bundled NBL rate is 35% higher than the resulting bundled BL rate.

#### 17 **B. Residential Customer Charge**

18 SoCalGas and SDG&E propose to implement a \$0.32876 per-meter-per-day  
19 (approximately \$10 per month) residential fixed charge. As shown in the cost allocation  
20 testimony of Dr. Chaudhury and Ms. Schmidt-Pines, the fully allocated residential marginal  
21 customer costs are \$224 per year and \$240 per year for SoCalGas and SDG&E, respectively, and  
22 cover costs that do not vary with usage. Currently, SoCalGas' residential rates consist of a  
23 \$0.16438 per-meter per-day (approximately \$5 per month) fixed charge that partially covers the

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<sup>1</sup> Cal. Pub. Util. Code § 739.7 mandates that the NBL rate must be higher than the BL rate.

1 fixed costs of services provided every month. These fixed costs include installation and  
2 maintenance of the gas service lines, meters, and regulators; meter reading; billing; maintenance  
3 of facilities; and vehicles and equipment—these are the costs of the basic facilities to transport  
4 gas to customer meters from the distribution system and provide customer service for those  
5 facilities.

6 Because these costs are largely fixed, setting a rate to recover these costs on a fixed basis  
7 appropriately reflects cost causation. The Commission has confirmed the propriety of this  
8 principle and supported the customer charge as furthering the same:

9 [A] residential customer charge is consistent with and supported by our well-  
10 established principle of marginal cost-based rates design. It would collect  
11 revenues more closely in proportion to cost causation thereby reducing subsidies,  
12 better inform customers of the system costs their consumption causes, and  
13 promote greater overall economic efficiency.<sup>2</sup>  
14

15 SoCalGas' current residential customer charge was established in D.94-12-052. In  
16 adopting this increase, the Commission explained that “utilities must charge rates that more  
17 closely approximate the marginal cost of service.”<sup>3</sup> Prior to D.94-12-052, SoCalGas' residential  
18 customer charge had not been changed for approximately 20 years.<sup>4</sup> As the Commission  
19 recognized in D.94-12-052, when the customer charge is far below customer-related costs, low-  
20 volume users are subsidized by high-volume users. This occurs because the fixed, customer-  
21 related costs that are not recovered in the customer charge must be recovered in the volumetric  
22 rate. With the inverted block rate design for the residential class, a large portion of these costs

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<sup>2</sup> D.93-06-087, mimeo., at 27.

<sup>3</sup> D.94-12-052, mimeo., at 35-36.

<sup>4</sup> D.94-12-052, mimeo., at 36 (“We believe the time has come for a revision in the customer charge as it has not been increased in 20 years.”) During the 20 years prior to D.94-12-052, the Commission declined requests by SoCalGas to increase the charge, but acknowledged the need to increase the charge at some point in the future to more closely align cost recovery with cost causation. *See* D.86-12-009, mimeo., at 54 (“[T]he customer charges now in place appear to be low in comparison to costs. . . . An imposition or raising of customer charges might be appropriate in the near future.”); *see also* D.94-12-052, mimeo., at 36 (“We have for some time been aware of the need to increase this charge.”)

1 are recovered in the higher Tier 2 (tail-block) rate. Because high-volume users have a larger  
2 portion of their annual consumption at the higher tier rate than low-volume users, the high-  
3 volume users incur a disproportionate amount of the customer-related costs. In practical terms,  
4 this could mean that customers who live in older homes subsidize the fixed costs of gas service  
5 of customers in newer, energy-efficient homes, and customers who live in cooler environments  
6 inland subsidize customers who live in more temperate environments along the coast. Increasing  
7 the customer charge is necessary to reduce this intra-class cross-subsidy to achieve a fair and  
8 reasonable distribution of these fixed costs.

9 In the 2013 TCAP, SDG&E proposed the implementation of a residential customer  
10 charge. Although the Commission ultimately rejected the request, the issue was overshadowed  
11 by other issues in the 2013 TCAP proceeding and was omitted in the Proposed Decision. It was  
12 only when SoCalGas and SDG&E reminded the Commission of the request that the issue was  
13 addressed in the final decision.<sup>5</sup>

14 The Utilities proposes to continue on the path established in D.93-06-087 and continued  
15 in D.94-12-052 toward a cost-based customer charge. As discussed above, the fully allocated  
16 residential marginal customer costs for SoCalGas and SDG&E are \$224 and \$240, respectively.  
17 Thus, SoCalGas and SDG&E propose that the residential customer charge be updated to  
18 \$0.32876 per meter per day (approximately \$10 per month).

19 **1. Residential Customer Charges Are an Accepted Cost Recovery**  
20 **Mechanism Throughout the United States**

21 Natural gas utility customer charges are an accepted practice throughout the United  
22 States. In 2015, the American Gas Association (AGA) updated its report titled “Natural Gas  
23 Utility Rate Structure: The Customer Charge Component,” which reviewed natural gas utility

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<sup>5</sup> D.14-06-007, mimeo., at 41.



1 tariffs in all 50 states and the District of Columbia. The report shows that residential customer  
2 charges range from a high of \$45.06 per month to SDG&E's low of \$0, with the median  
3 customer charge throughout the United States being \$11.25 per month.<sup>6</sup> Currently, SDG&E is  
4 the only gas utility in the State of California, and, based on the AGA report, the United States,  
5 that does not have some sort of fixed cost recovery for natural gas use. Appendix B provides the  
6 report from the AGA showing the customer charges of the utilities throughout the United States.

7 SoCalGas and SDG&E also found three additional California gas utilities with customer  
8 charges not listed in the AGA report.<sup>7</sup> West Coast Gas Corporation has a \$3.28-per-month  
9 residential customer charge.<sup>8</sup> Alpine Natural Gas has a \$9.00-per-month residential customer  
10 charge.<sup>9</sup> Southern California Edison (SCE) has a residential monthly natural gas customer  
11 charge of \$12.51 per month.<sup>10</sup> As discussed previously, residential customer charges are an  
12 accepted and common way to recover fixed costs throughout the United States and the State of  
13 California. The Commission should approve SDG&E's request to implement a fixed cost  
14 recovery charge and SoCalGas' request to increase its residential customer charge.

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<sup>6</sup> Pacific Gas & Electric Company (PG&E) is listed as having \$0 customer charge however, the Utilities note that PG&E has a minimum bill which was adopted by the Commission in D.05-06-029. *See* PG&E Gas Schedule No. G-1 – Residential Service.

<sup>7</sup> PG&E and Southwest Gas were listed in the AGA report.

<sup>8</sup> West Coast Gas Corporation (West Coast) is a natural gas distribution utility serving the former Mather (Sacramento County) and Castle (Merced County) Air Force Bases and the federal prison at Herlong (Lassen County). In D.06-01-041, the Commission adopted a \$3.00 per-month customer charge for West Coast's residential natural gas customers. In D.08-11-010, the Commission increased this charge by 9.49% to approximately \$3.28 per month.

<sup>9</sup> Alpine Natural Gas (Alpine) is a natural gas distribution utility serving Calaveras County, California. In D.97-04-073, the Commission authorized Alpine to finance up to 100 feet of service line connection for each applicant for gas service and to recover that cost through a Customer Charge of \$9.00 per month.

<sup>10</sup> SCE provides natural gas service to Santa Catalina Island. The rates for this service include a fixed customer charge (at a per-meter per-day rate) and a per-therm energy charge. In D.09-09-034, the Commission allocated 15% rate increases to the fixed portion of the bill and 85% to the volumetric rate. SCE's fixed domestic natural gas customer charge ranges from \$0.417 per meter per day for a 175-cubic-foot per-hour meter to \$11.87 per meter per day for a 5,000 cubic-feet per-hour meter.

1                                   **2.       Reducing Intra-Class Subsidies**

2                   As discussed above, setting the customer charge closer to costs reduces intra-class  
3 subsidies. To the extent fixed customer charges are set below fixed costs, the volumetric rate is  
4 set correspondingly higher to recover these costs. Under this rate design structure, customers  
5 who use relatively small amounts of natural gas do not pay for all of the costs they impose on the  
6 system. In turn, other customers within the class must make up the difference. Establishing a  
7 customer charge closer to cost lessens this intra-class subsidy and achieves a more even and just  
8 distribution of fixed costs. Cost causation seeks to determine which customer or group of  
9 customers causes the utility to incur particular types of costs.<sup>11</sup> Here, each customer is the cause  
10 of the fixed costs unrelated to the amount of gas consumed. Thus, the proposed approach is  
11 consistent with the fundamental principle of allocating costs to customer groups based on cost  
12 causation.

13                                   **3.       Reducing Bill Volatility**

14                   Setting the residential customer charge closer to costs mitigates bill volatility between  
15 seasons by recovering some fixed costs during the low-usage summer months. Because a typical  
16 residential customer has much higher natural gas usage in the winter than in the summer, fixed  
17 cost recovery skews to the winter months and increases bill volatility. Recovery of fixed costs  
18 through a fixed customer charge reduces this volatility by lowering the volumetric rate and  
19 creating a more even series of monthly charges throughout the year. Thus, the typical residential  
20 customer’s bill will rise slightly in the summer (low-usage) months and will decrease slightly in  
21 the winter (high-usage months). Tables 3 and 4 below illustrate how a typical SoCalGas and  
22 SDG&E residential customer’s monthly bill based on an annual average of 37 and 26 therms,  
23 respectively, would be impacted.

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<sup>11</sup> See Cost Allocation testimony of Dr. Chaudhury at 3-4.

Table 3: Increase/(Decrease) in typical SoCalGas residential customers monthly bill due to increase of customer charge											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
(\$4.83)	(\$3.62)	(\$1.86)	(\$0.38)	\$0.98	\$1.39	\$2.04	\$2.30	\$2.04	\$2.13	\$0.70	(\$2.27)

Table 4: Increase/(Decrease) in typical SDG&E residential customers monthly bill due to implementation of customer charge											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
(\$7.74)	(\$6.08)	(\$3.17)	(\$0.25)	\$2.93	\$3.37	\$4.26	\$4.78	\$4.36	\$4.57	\$1.88	(\$3.30)

As shown in Tables 3 and 4 above, implementation of a customer charge results in a more even distribution of costs and reduces bill volatility.

#### 4. Impacts on Conservation Efforts

Historically, parties opposed to residential fixed charges have argued that those charges inhibit conservation efforts and energy efficiency price signals. The Commission has in the past noted the importance of energy conservation but has also noted that conservation should not be promoted by suspending movement toward cost-based rates and ignoring principles of cost allocation.

In PG&E's 1993 General Rate Case, TURN asserted that a customer charge would undermine the Commission's promotion of energy efficiency investments through the residential rebate programs.<sup>12</sup> Although the Commission did not adopt the proposed customer charge, the Commission dismissed TURN's conservation argument and found:

Our fundamental approach to cost-based ratemaking is premised on economic theory which holds that the optimum allocation of resources is yielded by marginal cost pricing. In effect, TURN asks us to suspend movement towards marginal cost-based pricing by holding the customer charge at zero and keeping the energy charges at levels above what they should otherwise be in order to promote DSM program goals. We find insufficient basis for doing so. . . Economically efficient reductions in energy rates to levels that are closer to their EPMC basis may indeed affect the cost-benefit ratios underlying various rebate programs, but we do not see that as a reason to retreat from such cost-based rates. Nor, as indicated, do we believe that it inappropriately undermines DSM goals to set cost-based prices. Indeed, TURN's approach using the artifice of high energy rates to make rebate programs more valuable than they would be under more

<sup>12</sup> D.93-06-087, mimeo., at 42.

1 economically efficient rates would require that we elevate a specific DSM  
2 program goal above economic efficiency goals of rate design.<sup>13</sup>

3  
4 As previously discussed, in SoCalGas' 1993 Biennial Cost Allocation Proceeding the  
5 Commission approved SoCalGas' proposal to increase its residential customer charge despite  
6 TURN's opposition based on conservation concerns.<sup>14</sup> The Commission acknowledged TURN's  
7 concern, but approved the increase as a way to move toward cost-based rates and lower intra-  
8 class subsidies, recognizing that "utilities must charge rates that more closely approximate the  
9 marginal cost of service."<sup>15</sup>

10 In SCE's 1995 General Rate Case, SCE proposed replacing its electric minimum bill with  
11 a \$5.00 per-month residential customer charge.<sup>16</sup> TURN opposed this change and argued that the  
12 residential customer charge would reduce customer incentives to conserve energy. The  
13 Commission noted that TURN had made similar arguments in PG&E's 1993 General Rate Case  
14 discussed above and again rejected TURN's argument, finding, "It is not reasonable to retreat  
15 from cost-based rates just because economically efficient reductions in energy rates may affect  
16 the cost-benefit ratios underlying various DSM rebate programs."<sup>17</sup>

17 In PG&E's 2011 General Rate Case, PG&E proposed to implement an electric residential  
18 customer charge, and TURN asserted that the Commission's rejection of the proposed electric  
19 residential customer charge should be precedential. The Commission, throughout the decision  
20 and the concurrence, reiterated its desire to bring rates incrementally closer to their true cost of  
21 service<sup>18</sup> and the appeal of a customer charge in achieving this. Despite signaling support for

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<sup>13</sup> D.93-06-087, mimeo., at 42-43.

<sup>14</sup> D.94-12-052, mimeo., at 36.

<sup>15</sup> D.94-12-052, mimeo., at 36.

<sup>16</sup> See D.96-04-050, mimeo., at 107

<sup>17</sup> D.96-04-050, mimeo., at 192, Finding of Fact 46.

<sup>18</sup> See D.11-05-047, mimeo., at 35 ("...the reduction in the Tier 4 rate adopted herein is an important step forward in addressing the disparities in billing impacts between CARE and non-CARE customers as we

1 the ratemaking principles underlying a customer charge, the Commission ultimately rejected the  
2 proposal based on legal restrictions applicable on to electric utilities<sup>19</sup> and a determination that  
3 PG&E’s particular customer charge—not every customer charge—would unacceptably impact  
4 rates and conservation signals.<sup>20</sup>

5 As shown above, economically efficient decision-making is best when customers are able  
6 to make choices based on the actual costs that are associated with the services they receive. The  
7 rate design proposed by SoCalGas and SDG&E herein would provide customers with more  
8 accurate information regarding the services they receive, enabling them to make better-informed  
9 decisions regarding their natural gas use.

### 10 **5. Bill Impacts of Proposed Residential Customer Charge**

11 As discussed above, SoCalGas’ and SDG&E’s proposed residential customer charges are  
12 consistent with Commission policy.<sup>21</sup> Both SoCalGas’ and SDG&E’s proposals are designed to  
13 allocate costs to the customers imposing them.

14 In the 2013 TCAP (A.11-11-002), there was discussion concerning the bill impact of  
15 SDG&E’s residential customer charge proposal on California Alternate Rate for Energy (CARE)  
16 customers and residential customers that did not leave the BL tier. Thus, to maintain  
17 consistency, the Utilities include the same analysis here. The Utilities’ analysis shows that  
18 CARE and low-usage baseline-only customers would experience limited impact from the

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move rates incrementally closer to the cost of service. This continues the progress that we started with  
the elimination of Tier 5 in D.10-05-051. We will continue to monitor billing impacts for Kern County  
residents in future GRC’s in an effort to sustain an appropriate and balanced rate design.”); *see also* D.11-  
05-047, Concurrence of Commissioner Timothy Alan Simon, mimeo., at 1 (“I support this Decision that  
navigates challenging terrain to reach a rate design that achieves balance, equity, and progress toward our  
long term policy goal of moving electricity rates closer to the true cost of services.”)

<sup>19</sup> D.11-05-047, mimeo., at 24 (referencing California Public Utilities Code 739.1(b)(2) and 739.9(a)).

<sup>20</sup> D.11-05-047, mimeo., at 24.

<sup>21</sup> *See* D.99-06-058, mimeo., at 7 (“Our policy has consistently been that costs should be allocated to those  
customers who impose them.”).

1 adoption of SoCalGas' and SDG&E's residential customer charge. Table 5 below lists the bill  
 2 impact for various customer groups

<b>Table 5: Bill Impact of Proposed Residential Customer Charge (\$/month)</b>					
	<b>1/1/2015</b>	<b>TCAP Proposed w/o cust. chg.</b>	<b>TCAP Proposed w/ cust. chg.</b>	<b>\$ Change</b>	<b>% Change</b>
	<b>A</b>	<b>B</b>	<b>C</b>	<b>D=(C-B)</b>	<b>E=(D/B)</b>
<b><u>SCG:</u></b>					
Residential Class Average	\$41.54	\$39.89	\$39.78	(\$0.12)	-0.29%
Residential CARE	\$26.77	\$25.70	\$26.38	\$0.68	2.66%
Residential Baseline Only	\$33.02	\$31.69	\$32.56	\$0.87	2.74%
<b><u>SDG&amp;E:</u></b>					
Residential Class Average	\$34.28	\$29.87	\$30.34	\$0.47	1.57%
Residential CARE	\$23.88	\$20.74	\$21.93	\$1.19	5.72%
Residential Baseline Only	\$32.45	\$28.11	\$28.96	\$0.85	3.04%

3 As Table 5 shows, the bill increases resulting from SoCalGas and SDG&E's proposal are  
 4 not inequitable, especially when the rate increases are attempts to reduce intra-class subsidies by  
 5 moving toward cost-based rates. These are not frivolous increases but increases necessitated by  
 6 past rate inequity in which high-usage customers subsidized low-usage customers because of a  
 7 volumetric rate that included a majority of SoCalGas' and all of SDG&E's fixed costs. The  
 8 implementation of a residential customer charge helps alleviate these flaws by collecting a  
 9 portion of a residential customer's fixed costs as a fixed charge.

10 **C. Submeter Credits**

11 Submeter credits apply to customers with a master meter that provides service to  
 12 residential sub-units (e.g., multi-family dwelling units and mobile home parks). D.04-04-043  
 13 established a method for calculating submeter credits. In that decision, certain categories of  
 14 costs were defined as "Utility Avoided Costs," which are costs for which the owner of a master  
 15 meter is reimbursed through the discount provided by the utility (to the extent these costs do not  
 16 exceed the average costs the utility would have incurred in providing direct service). In this

1 proceeding, the Utilities propose to update their submeter credits in compliance with the  
2 methodology set forth in D.04-04-043 and as was used most recently to update the submeter  
3 credits in the 2013 TCAP approved by D.14-06-007. Currently, SoCalGas' submeter credit is set  
4 at \$0.23573 /meter/day and SoCalGas proposes to set it at \$0.27386/meter/day for this TCAP  
5 term.

6 SDG&E's submeter credits are currently set at \$0.29392/meter/day for multi-family (GS)  
7 customers and \$0.36460/meter/day for mobilehome (GT) customers. SDG&E proposes to set  
8 them at \$0.38268/meter/day and \$0.40932/meter/day, respectively, for this TCAP term.

#### 9 **D. Core C&I Rates**

10 SoCalGas and SDG&E each have a single tariff serving its core commercial and  
11 industrial (C&I) customers, Schedule G-10 for SoCalGas and Schedule GN-3 for SDG&E.  
12 Presently, the G-10 rate design consists of a \$15 customer charge and three tiers of declining  
13 block volumetric rates, while the GN-3 rate design consists of a \$10 customer charge and three  
14 tiers of declining block volumetric rates.

15 In D.14-06-007, the Commission approved the current procedure for determining the rate  
16 structure for the different tiers within SoCalGas' G-10 rate design and SDG&E's GN-3 rate  
17 design. Neither SoCalGas nor SDG&E proposes any changes to the current methodology.

#### 18 **E. NGV Compression Cost Update**

19 A compression surcharge or Compression Rate Adder is intended to cover the cost of  
20 providing compressed natural gas (CNG) to motor vehicles fueling at public access CNG vehicle  
21 refueling stations owned and operated by the utility. The Compression Rate Adder is charged to  
22 customers on a volumetric or dollar-per-therm basis in addition to the Uncompressed  
23 Commodity Charge, which is based on the prevailing cost of the natural gas commodity and  
24 delivery charge. The Compression Rate Adder is meant to reflect the capital and operating costs

1 of compressing the natural gas and providing public access to CNG fuel to operate NGVs.  
2 Additional state fuel tax, federal excise tax, and utility user taxes, which can vary by location, are  
3 also charged to customers. Currently there is an approved rate that prevails across both  
4 Companies for the Compression Rate Adder, so the Compression Rate Adders for SoCalGas and  
5 SDG&E are nearly identical, with only a small difference deriving from differences in the  
6 Franchise Fees and Uncollectibles Accounts Expense (FF&U) for SoCalGas and SDG&E.

7 The goal of this cost allocation methodology is to determine the volumetric based prices for  
8 the NGV Compression Rate Adder that reflect the Companies' reasonable and fair cost of  
9 providing that service to both the Companies' private fleet of NGVs, as well as to non-Company  
10 owned NGVs, *i.e.*, public customers, so that private NGV compression customers do not subsidize  
11 the public NGV compression users and vice versa.<sup>22</sup>

12 The NGV Compression Rate Adder has been updated to reflect current costs and  
13 proposed allocations of those costs. These costs are composed of a capital related revenue  
14 requirement related to public-access refueling equipment, including return on ratebase, and a  
15 "fully-loaded" revenue requirement related to operations and maintenance expenses. The  
16 combined SoCalGas and SDG&E embedded cost compression revenue requirements are divided  
17 by the combined demand forecast for compressed NGV volumes as presented in the direct  
18 testimony of Ms. Payan. The resulting Sempra-wide NGV Compression Rate Adder proposed  
19 for this TCAP term is \$1.03134 per therm and \$1.03712 per therm for SoCalGas and SDG&E,  
20 respectively.

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<sup>22</sup> See Cal. Pub. Util. Code § 740.3(c).



1 **III. NONCORE RATE DESIGN**

2 **A. Noncore Distribution Rates**

3 The Utilities' current service for noncore C&I and electric generation (EG) customers  
4 with distribution-level service is provided under Schedules GT-F and GT-I for SoCalGas and  
5 Schedules GTNC and EG for SDG&E. The current noncore C&I rate design consists of a single  
6 customer charge of \$350 per month for both utilities and four tiers of declining block volumetric  
7 rates for SoCalGas and a single flat rate for SDG&E. For EG customers, there is a single \$50  
8 customer charge for tier 1 customers and two tiers of declining block volumetric rates. Neither  
9 SoCalGas nor SDG&E proposes any changes to the current methodology.

10 **B. Transmission Level Service Rates**

11 The Utilities' current service for TLS customers is provided under Schedule GT-TLS for  
12 SoCalGas and Schedule TLS for SDG&E. The current rate design consists of a class-average  
13 volumetric rate option and a reservation rate option for customers served off of the transmission  
14 system. Neither SoCalGas nor SDG&E proposes any changes to the current methodology.

15 **IV. OTHER PROPOSALS**

16 **A. System Operator Gas Account**

17 As discussed in the testimony of Mr. Ahmed, the System Operator Gas Account (SOGA)  
18 was established to allow SoCalGas' Operational Hub to buy and sell gas in support of the cash-  
19 out activity related to its California Producer Operational Balancing Agreements (CPOBA) and  
20 resolution of pipeline Operational Balancing Agreements (OBA). The purpose of my testimony  
21 is to propose an allocation methodology for recovery of SOGA costs in rates. Since the SOGA is  
22 designed to record cost and revenue transactions resulting from operational imbalance and cash-  
23 out provisions associated with the CPOBA and the administration of pipeline OBA, SoCalGas  
24 proposes that the SOGA be allocated similarly to other system-related regulatory accounts (e.g.,

1 System Reliability Memorandum Account), and be allocated based on an Equal Cent Per Therm  
2 (ECPT) basis.

3 **B. Transmission Level Service Reservation Revenue Report**

4 Pursuant to D.14-06-007, SoCalGas is required to include in this TCAP filing “data on  
5 actual revenues from service provided under the TLS Reservation Rate Option and actual  
6 volumes of service provided under that Option.”<sup>23</sup> SoCalGas presents the following table in  
7 compliance with the Commission’s decision.

8

<b>Table 6: TLS Reservation Revenue Report</b>	
<b>Intrastate Transmission Level Service Transportation Revenues and Volumes</b>	
<b>Time Period: 01/2013 (TCAP 2013 start) to 03/2015 (for SoCalGas and SDGE)</b>	
Reservation Service Transmission Revenue (\$000)	\$96,106
Volumes (Mth)	4,772,994

9  
10 This concludes my revised prepared direct testimony.  
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22

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<sup>23</sup> See Attachment III, Section II.B.3.c.

1 **V. QUALIFICATIONS**

2 My name is Jason Bonnett. My business address is 8330 Century Park Court, San Diego,  
3 California, 92123. I am employed by SDG&E as a Principal Regulatory Economic Advisor in  
4 the CPUC/FERC Gas Regulatory Affairs Department of SoCalGas and SDG&E.

5 I hold a Bachelor of Science degree in Business Administration from Minnesota State  
6 University - Mankato, a Juris Doctorate from Hamline University School of Law, and a Master  
7 of Arts in Public Administration from Hamline University. I have been employed by SDG&E  
8 since 2007.

9 Prior to joining SDG&E, I was employed by the Minnesota Department of Commerce,  
10 Energy Division, as a Public Utilities Rates Analyst from May 1998 through July 2007. I have  
11 previously testified before the Commission.

# **Appendix A**

**TABLE 1**  
**Natural Gas Transportation Rates**  
**Southern California Gas Company**  
**TCAP Phase II Rates**

		TCAP Phase II Application								
		Present Rates			Proposed Rates			Changes		
		Jan-1-15	Average	Jan-1-15	Jan-1-17	Proposed	Jan-1-17	Revenue	Rate	% Rate
		Volumes	Rate	Revenues	Volumes	Rate	Revenues	Change	Change	change
		Mth	\$/therm	\$000's	Mth	\$/therm	\$000's	\$000's	\$/therm	%
		A	B	C	D	E	F	G	H	I
1	<b>CORE</b>									
2	Residential	2,337,534	\$0.71570	\$1,672,983	2,435,160	\$0.64612	\$1,573,398	(\$99,585)	(\$0.06959)	-9.7%
3	Commercial & Industrial	984,102	\$0.33979	\$334,392	1,023,186	\$0.24133	\$246,928	(\$87,464)	(\$0.09846)	-29.0%
4										
5	NGV - Pre SempraWide	117,220	\$0.13363	\$15,665	157,095	\$0.09874	\$15,512	(\$153)	(\$0.03489)	-26.1%
6	SempraWide Adjustment	117,220	\$0.00867	\$1,016	157,095	(\$0.00715)	(\$1,124)	(\$2,140)	(\$0.01582)	-182.5%
7	NGV - Post SempraWide	117,220	\$0.14230	\$16,681	157,095	\$0.09159	\$14,388	(\$2,293)	(\$0.05071)	-35.6%
8										
9	Gas A/C	825	\$0.14108	\$116	772	\$0.09483	\$73	(\$43)	(\$0.04625)	-32.8%
10	Gas Engine	16,774	\$0.12163	\$2,040	20,699	\$0.12163	\$2,518	\$477	\$0.00000	0.0%
11	<b>Total Core</b>	<b>3,456,455</b>	<b>\$0.58621</b>	<b>\$2,026,212</b>	<b>3,636,911</b>	<b>\$0.50518</b>	<b>\$1,837,305</b>	<b>(\$188,907)</b>	<b>(\$0.08103)</b>	<b>-13.8%</b>
12										
13	<b>NONCORE COMMERCIAL &amp; INDUSTRIAL</b>									
14	Distribution Level Service	893,164	\$0.06968	\$62,239	865,102	\$0.05878	\$50,848	(\$11,391)	(\$0.01091)	-15.7%
15	Transmission Level Service (2)	654,456	\$0.01804	\$11,806	660,238	\$0.01601	\$10,570	(\$1,236)	(\$0.00203)	-11.3%
16	<b>Total Noncore C&amp;I</b>	<b>1,547,620</b>	<b>\$0.04784</b>	<b>\$74,045</b>	<b>1,525,339</b>	<b>\$0.04027</b>	<b>\$61,418</b>	<b>(\$12,627)</b>	<b>(\$0.00758)</b>	<b>-15.8%</b>
17										
18	<b>NONCORE ELECTRIC GENERATION</b>									
19	Distribution Level Service									
20	Pre Sempra Wide	333,969	\$0.05403	\$18,044	285,096	\$0.05869	\$16,731	(\$1,313)	\$0.00466	8.6%
21	Sempra Wide Adjustment	333,969	(\$0.00910)	(\$3,041)	285,096	(\$0.01310)	(\$3,736)	(\$695)	(\$0.00400)	43.9%
22	Distribution Post Sempra Wide	333,969	\$0.04492	\$15,003	285,096	\$0.04558	\$12,995	(\$2,008)	\$0.00066	1.5%
23	Transmission Level Service (2)	2,641,080	\$0.01487	\$39,270	2,392,699	\$0.01333	\$31,887	(\$7,382)	(\$0.00154)	-10.4%
24	<b>Total Electric Generation</b>	<b>2,975,049</b>	<b>\$0.01824</b>	<b>\$54,273</b>	<b>2,677,795</b>	<b>\$0.01676</b>	<b>\$44,883</b>	<b>(\$9,390)</b>	<b>(\$0.00148)</b>	<b>-8.1%</b>
25										
26	<b>TOTAL RETAIL NONCORE</b>	<b>4,522,669</b>	<b>\$0.02837</b>	<b>\$128,318</b>	<b>4,203,134</b>	<b>\$0.02529</b>	<b>\$106,301</b>	<b>(\$22,017)</b>	<b>(\$0.00308)</b>	<b>-10.9%</b>
27										
28	<b>WHOLESALE</b>									
29	Wholesale Long Beach (2)	92,897	\$0.01453	\$1,350	73,520	\$0.01311	\$964	(\$386)	(\$0.00143)	-9.8%
30	Wholesale SWG (2)	67,209	\$0.01453	\$977	65,367	\$0.01311	\$857	(\$120)	(\$0.00143)	-9.8%
31	Wholesale Vernon (2)	87,906	\$0.01453	\$1,278	95,137	\$0.01311	\$1,247	(\$30)	(\$0.00143)	-9.8%
32	International (2)	69,979	\$0.01453	\$1,017	91,378	\$0.01311	\$1,198	\$181	(\$0.00143)	-9.8%
33	Total Wholesale & International	317,990	\$0.01453	\$4,622	325,403	\$0.01311	\$4,266	(\$356)	(\$0.00143)	-9.8%
34	SDGE Wholesale	1,247,558	\$0.01258	\$15,692	1,251,556	\$0.01396	\$17,469	\$1,778	\$0.00138	11.0%
35	<b>Total Wholesale Incl SDGE</b>	<b>1,565,548</b>	<b>\$0.01298</b>	<b>\$20,313</b>	<b>1,576,959</b>	<b>\$0.01378</b>	<b>\$21,735</b>	<b>\$1,422</b>	<b>\$0.00081</b>	<b>6.2%</b>
36										
37	<b>TOTAL NONCORE</b>	<b>6,088,217</b>	<b>\$0.02441</b>	<b>\$148,631</b>	<b>5,780,093</b>	<b>\$0.02215</b>	<b>\$128,036</b>	<b>(\$20,595)</b>	<b>(\$0.00226)</b>	<b>-9.3%</b>
38										
39	Unbundled Storage (4)			\$26,476			\$17,020	(\$9,456)		
40	System Total (w/o BTS)	9,544,672	\$0.23063	\$2,201,319	9,417,004	\$0.21051	\$1,982,361	(\$218,958)	(\$0.02012)	-8.7%
41	Backbone Trans. Service BTS (3)	2,809	\$0.15777	\$161,782	2,818	\$0.18703	\$192,350	\$30,567	\$0.02926	18.5%
42	<b>SYSTEM TOTALw/BTS</b>	<b>9,544,672</b>	<b>\$0.24758</b>	<b>\$2,363,102</b>	<b>9,417,004</b>	<b>\$0.23093</b>	<b>\$2,174,711</b>	<b>(\$188,391)</b>	<b>(\$0.01665)</b>	<b>-6.7%</b>
43										
44	EOR Revenues	203,920	\$0.03081	\$6,283	231,570	\$0.03241	\$7,505	\$1,221	\$0.00160	5.2%
45	<b>Total Throughput w/EOR Mth/yr</b>	<b>9,748,592</b>			<b>9,648,574</b>					

- 1) These rates are for Natural Gas Transportation Service from "Citygate to Meter". The BTS rate is for service from Receipt Point to Citygate.
- 2) These Transmission Level Service "TLS" amounts represent the average transmission rate, see Table 7 or detail list of TLS rates.
- 3) BTS charge (\$/dth/day) is proposed as a separate rate. Core will pay through procurement rate, noncore as a separate charge.
- 4) Unbundles Storage costs are not part of the Core Storage or Load Balancing functions (those are included in transport rates).

**TABLE 2**  
**Residential Transportation Rates**  
**Southern California Gas Company**  
**TCAP Phase II Rates**  
TCAP Phase II Application

	Present Rates			Proposed Rates			Changes		
	Jan-1-15	Average	Jan-1-15	Jan-1-17	Rate	Jan-1-17	Revenue	Rate	% Rate
	Volumes	Rate	Revenue	Volumes	Rate	Revenue	Change	Change	change
	Mth	\$/th	\$000's	Mth	\$/th	\$000's	\$000's	\$/th	%
	A	B	C	D	E	F	G	H	I
1 <b>RESIDENTIAL SERVICE</b>									
2 Customer Charge									
3 Single Family	3,663,383	\$5.00	\$219,803	3,750,414	\$10.00	\$450,050	\$230,247	\$5.00000	100.0%
4 Multi-Family	1,674,287	\$5.00	\$100,457	1,743,024	\$10.00	\$209,163	\$108,706	\$5.00000	100.0%
5 Small Master Meter	122,347	\$5.00	\$7,341	124,314	\$10.00	\$14,918	\$7,577	\$5.00000	100.0%
6 Submeter Credit-\$/unit/day	147,568	(\$0.23573)	(\$12,697)	148,373	(\$0.27386)	(\$14,831)	(\$2,135)	(\$0.03814)	16.2%
7 <b>Volumetric Transportation Rate Excludes CSITMA and CAT:</b>									
8 Baseline Rate	1,583,823	\$0.49782	\$788,461	1,839,570	\$0.31211	\$574,155	(\$214,306)	(\$0.18571)	-37.3%
9 Non-Baseline Rate	743,221	\$0.75782	\$563,229	584,298	\$0.57211	\$334,285	(\$228,944)	(\$0.18571)	-24.5%
10	2,327,044	\$0.71618	\$1,666,594	2,423,869	\$0.64679	\$1,567,739	(\$98,855)	(\$0.06939)	-9.7%
11 NBL/BL Ratio:									
12 Gas Rate \$/th		\$0.42840			\$0.40277			(\$0.02564)	-6.0%
13 NBL/BL rate ratio		1.05			1.36				
14 NBL- BL rate difference \$/th		\$0.26000			\$0.26000			\$0.00000	0.0%
15									
16 Large Master Meter Rate (Excludes Rate Adders for CAT):									
17 Customer Charge	55	\$373.78	\$248	57	\$411.17	\$280	\$32	\$37.39	10.0%
18 Baseline Rate	7,802	\$0.17921	\$1,398	9,428	\$0.10851	\$1,023	(\$375)	(\$0.07071)	-39.5%
19 Non-Baseline Rate	2,688	\$0.27281	\$733	1,863	\$0.19890	\$370	(\$363)	(\$0.07392)	-27.1%
20	10,490	\$0.22688	\$2,380	11,291	\$0.14824	\$1,674	(\$706)	(\$0.07864)	-34.7%
21									
22 <b>Residential Rates Includes CSITMA, Excludes CAT:</b>									
23 CSITMA Adder to Volumetric Rate	1,671,915	\$0.00244	\$4,082	1,800,739	\$0.00221	\$3,988	(\$94)	(\$0.00023)	-9.3%
24 Residential:									
25 Customer Charge		\$5.00			\$10.00			\$5.00000	100.0%
26 Baseline \$/therm		\$0.50026			\$0.31433			(\$0.18593)	-37.2%
27 Non-Baseline \$/therm		\$0.76026			\$0.57433			(\$0.18593)	-24.5%
28 Average NonCARE Rate \$/therm		\$0.71863			\$0.64901			(\$0.06962)	-9.7%
29 Large Master Meter:									
30 Customer Charge		\$373.78			\$411.17			\$37.39	10.0%
31 BaseLine Rate		\$0.18166			\$0.11072			(\$0.07093)	-39.0%
32 NonBaseLine Rate		\$0.27525			\$0.20111			(\$0.07414)	-26.9%
33 Average NonCARE Rate \$/therm		\$0.22932			\$0.15045			(\$0.07886)	-34.4%
34 <b>Residential Rates Includes CSITMA &amp; CAT:</b>									
35 CAT Adder to Volumetric Rate	8,732	(\$0.00831)	(\$73)	49,671	(\$0.00003)	(\$2)	\$71	\$0.00828	-100%
36 Residential:									
37 Customer Charge		\$5.00			\$5.00			\$0.00000	0.0%
38 BaseLine Rate		\$0.49195			\$0.31430			(\$0.17766)	-36.1%
39 NonBaseLine Rate		\$0.75195			\$0.57430			(\$0.17766)	-23.6%
40 Large Master Meter:									
41 Customer Charge		\$373.78			\$411.17			\$37.38634	10.0%
42 BaseLine Rate		\$0.17335			\$0.11069			(\$0.06266)	-36.1%
43 NonBaseLine Rate		\$0.26694			\$0.20107			(\$0.06587)	-24.7%
44 <b>Other Adjustments :</b>									
45 TCA for CSITMA exempt customers		(\$0.00244)			(\$0.00221)			\$0.00023	-9.3%
46									
47 <b>TOTAL RESIDENTIAL</b>	<b>2,337,534</b>	<b>\$0.71570</b>	<b>\$1,672,983</b>	<b>2,435,160</b>	<b>\$0.64612</b>	<b>\$1,573,398</b>	<b>(\$99,585)</b>	<b>(\$0.06959)</b>	<b>-9.7%</b>

See footnotes Table 1

**TABLE 3**  
**Core Nonresidential Transportation Rates**  
**Southern California Gas Company**  
**TCAP Phase II Rates**  
TCAP Phase II Application

	Present Rates			Proposed Rates			Changes			
	Jan-1-15 Average Volumes Mth	Rate \$/th	Jan-1-15 Revenue \$000's	Jan-1-17 Volumes Mth	Rate \$/th	Jan-1-17 Revenue \$000's	Revenue Change \$000's	Rate Change \$/th	% Rate change %	
	A	B	C	D	E	F	G	H	I	
1										
2	<b>CORE COMMERCIAL &amp; INDUSTRIAL</b>									
3	Customer Charge 1	147,208	\$15.00	\$26,497	146,202	\$15.00	\$26,316	(\$181)	\$0.00	0.0%
4	Customer Charge 2	60,603	\$15.00	\$10,909	61,115	\$15.00	\$11,001	\$92	\$0.00	0.0%
5	<b>Volumetric Transportation Rate Excludes CSITMA &amp; CAT:</b>									
6	Tier 1 = 250th/mo	223,928	\$0.54382	\$121,776	203,321	\$0.42415	\$86,238	(\$35,537)	(\$0.11967)	-22.0%
7	Tier 2 = next 4167 th/mo	495,650	\$0.28796	\$142,725	453,170	\$0.21152	\$95,856	(\$46,869)	(\$0.07643)	-26.5%
8	Tier 3 = over 4167 th/mo	264,524	\$0.11640	\$30,792	366,694	\$0.06896	\$25,288	(\$5,504)	(\$0.04744)	-40.8%
9		984,102	\$0.33807	\$332,699	1,023,186	\$0.23915	\$244,699	(\$87,999)	(\$0.09892)	-29.3%
10										
11	<b>Volumetric Transportation Rate Includes CSITMA, Excludes CAT:</b>									
12	CSITMA Adder to Volumetric Rate	980,381	\$0.00244	\$2,393	1,008,238	\$0.00221	\$2,233	(\$161)	(\$0.00023)	-9.3%
13	Tier 1 = 250th/mo		\$0.54626			\$0.42636			(\$0.11989)	-21.9%
14	Tier 2 = next 4167 th/mo		\$0.29040			\$0.21374			(\$0.07666)	-26.4%
15	Tier 3 = over 4167 th/mo		\$0.11885			\$0.07118			(\$0.04767)	-40.1%
16			\$0.34051			\$0.24137			(\$0.09915)	
17	<b>Volumetric Transportation Rate Includes CSITMA &amp; CAT:</b>									
18	CAT Adder to Volumetric Rate	84,283	(\$0.00831)	(\$700)	137,753	(\$0.00003)	(\$4)	\$696	\$0.00828	-100%
19	Tier 1 = 250th/mo		\$0.53795			\$0.42633			(\$0.11162)	-20.7%
20	Tier 2 = next 4167 th/mo		\$0.28209			\$0.21371			(\$0.06838)	-24.2%
21	Tier 3 = over 4167 th/mo		\$0.11054			\$0.07114			(\$0.03939)	-35.6%
22			\$0.33221			\$0.24134			(\$0.09087)	-27.4%
23	<b>Other Adjustments :</b>									
24	TCA for CSITMA exempt customers		(\$0.00244)			(\$0.00221)			\$0.00023	-9.3%
25										
26	<b>TOTAL CORE C&amp;I</b>	<b>984,102</b>	<b>\$0.33979</b>	<b>\$334,392</b>	<b>1,023,186</b>	<b>\$0.24133</b>	<b>\$246,928</b>	<b>(\$87,464)</b>	<b>(\$0.09846)</b>	<b>-29.0%</b>
27										
28	<b>NATURAL GAS VEHICLES (a sempra-wide rate)</b>									
29	Customer Charge, P-1	229	\$13.00	\$36	229	\$13.00	\$36	\$0	\$0.00000	0.0%
30	Customer Charge, P-2A	83	\$65.00	\$64	130	\$65.00	\$101	\$37	\$0.00000	0.0%
31	Uncompressed Rate Excludes CSITMA & CAT	117,220	\$0.12748	\$14,943	157,095	\$0.07472	\$11,739	(\$3,204)	(\$0.05275)	-41.4%
32	Total Uncompressed NGV	117,220	\$0.12833	\$15,043	157,095	\$0.07560	\$11,876	(\$3,167)	(\$0.05274)	-41.1%
33	Compressed Rate Adder	1,287	\$1.05002	\$1,351	2,099	\$1.03134	\$2,164	\$813	(\$0.01869)	-1.8%
34										
35	<b>Uncompressed Rate Includes CSITMA, Excludes CAT</b>									
36	CSITMA Adder to Volumetric Rate	117,175	\$0.00244	\$286	157,073	\$0.00221	\$348	\$62	(\$0.00023)	-9.3%
37	Uncompressed Rate \$/therm		\$0.12992			\$0.07694			(\$0.05298)	-40.8%
38	<b>Other Adjustments :</b>									
39	TCA for CSITMA exempt customers		(\$0.00244)			(\$0.00221)			\$0.00023	-9.3%
40										
41	<b>TOTAL NGV SERVICE</b>	<b>117,220</b>	<b>\$0.14230</b>	<b>\$16,681</b>	<b>157,095</b>	<b>\$0.09159</b>	<b>\$14,388</b>	<b>(\$2,293)</b>	<b>(\$0.05071)</b>	<b>-35.6%</b>
42										
43	<b>RESIDENTIAL NATURAL GAS VEHICLES (optional rate)</b>									
44	Customer Charge	5,460	\$10.00	\$655	5,618	\$10.00	\$674	\$19	\$0.00000	0.0%
45	Uncompressed Rate Excludes CSITMA & CA	5,346	\$0.19467	\$1,041	4,540	\$0.17767	\$807	(\$234)	(\$0.01701)	-8.7%
46		5,346	\$0.31722	\$1,696	4,540	\$0.32616	\$1,481	(\$215)	\$0.00893	2.8%
47	<b>Uncompressed Rate Includes CSITMA, Excludes CAT</b>									
48	CSITMA Adder to Volumetric Rate		\$0.00244			\$0.00221			(\$0.00023)	-9.3%
49	Uncompressed Rate \$/therm		\$0.19711			\$0.17988			(\$0.01723)	-8.7%
50										
51	<b>Uncompressed Rate Includes CSITMA &amp; CAT</b>									
52	CAT Adder to Volumetric Rate	0	(\$0.00831)	\$0	0	(\$0.00003)	\$0	\$0	\$0.00828	-99.6%
53	Uncompressed Rate		\$0.18880			\$0.17984			(\$0.00896)	-4.7%
54	<b>Other Adjustments :</b>									
55	TCA for CSITMA exempt customers		(\$0.00244)			(\$0.00221)			\$0.00023	-9.3%
56										
57	<b>TOTAL RESIDENTIAL NATURAL GAS VEHIC</b>	<b>5,346</b>	<b>\$0.31722</b>	<b>\$1,696</b>	<b>4,540</b>	<b>\$0.32616</b>	<b>\$1,481</b>	<b>(\$215)</b>	<b>\$0.00893</b>	<b>2.8%</b>





**TABLE 5**  
**Noncore Commercial & Industrial Rates**  
**Southern California Gas Company**  
**TCAP Phase II Rates**  
TCAP Phase II Application

	Present Rates			Proposed Rates			Changes			
	Jan-1-15	Average	Jan-1-15	Jan-1-17		Jan-1-17	Revenue	Rate	% Rate	
	Volumes	Rate	Revenue	Volumes	Rate	Revenue	Change	Change	change	
	Mth	\$/th	\$000's	Mth	\$/th	\$000's	\$000's	\$/th	%	
	A	B	C	D	E	F	G	H	I	
1	<b>NonCore Commercial &amp; Industrial Distribution Level</b>									
2	Customer Charge	602	\$350.00	\$2,530	584	\$350.00	\$2,452	(\$79)	\$0.00000	0.0%
3										
4	<b>Volumetric Rates Includes CARB fee, Excludes CSITMA</b>									
5	Tier 1 = 250kth/yr	133,045	\$0.14882	\$19,800	121,573	\$0.12784	\$15,542	(\$4,257)	(\$0.02098)	-14.1%
6	Tier 2 = 250k to 1000k	217,578	\$0.09108	\$19,818	205,061	\$0.07792	\$15,978	(\$3,840)	(\$0.01317)	-14.5%
7	Tier 3 = 1 to 2 million th/yr	109,379	\$0.05415	\$5,923	109,960	\$0.04598	\$5,056	(\$867)	(\$0.00817)	-15.1%
8	Tier 4 = over 2 million th/yr	433,162	\$0.02776	\$12,024	428,508	\$0.02316	\$9,924	(\$2,100)	(\$0.00460)	-16.6%
9	Volumetric totals (excl itics)	893,164	\$0.06445	\$57,564	865,102	\$0.05375	\$46,500	(\$11,064)	(\$0.01070)	-16.6%
10										
11	<b>Volumetric Rates Includes CARB Fee &amp; CSITMA</b>									
12	CSITMA Adder to Volumetric Rate		\$0.00244	\$2,145		\$0.00221	\$1,897	(\$248)	(\$0.00023)	-9.3%
13	Tier 1 = 250kth/yr		\$0.15126			\$0.13006		(\$0.02120)		-14.0%
14	Tier 2 = 250k to 1000k		\$0.09352			\$0.08013		(\$0.01339)		-14.3%
15	Tier 3 = 1 to 2 million th/yr		\$0.05659			\$0.04819		(\$0.00840)		-14.8%
16	Tier 4 = over 2 million th/yr		\$0.03020			\$0.02537		(\$0.00483)		-16.0%
17	<b>Other Adjustments :</b>									
18	TCA for CSITMA exempt customers		(\$0.00244)			(\$0.00221)		\$0.00023		-9.3%
19	CARB Fee Credit \$/th		(\$0.00110)			(\$0.00071)		\$0.00040		-35.9%
20	<b>NCCI - DISTRIBUTION LEVEL</b>	893,164	\$0.06968	\$62,239	865,102	\$0.05878	\$50,848	(\$11,391)	(\$0.01091)	-15.7%
21										
22	<b>NCCI-TRANSMISSION LEVEL Incl CARB Fee</b>	10,674	\$0.01564	\$167	6,438	\$0.01382	\$89	(\$78)	(\$0.00182)	-11.6%
23	<b>NCCI-TRANSMISSION LEVEL Incl CARB Fee</b>	643,782	\$0.01808	\$11,639	653,799	\$0.01603	\$10,481	(\$1,158)	(\$0.00205)	-11.3%
24	<b>NCCI-TRANSMISSION LEVEL (2)</b>	654,456	\$0.01804	\$11,806	660,238	\$0.01601	\$10,570	(\$1,236)	(\$0.00203)	-11.3%
25										
26	<b>TOTAL NONCORE C&amp;I</b>	<b>1,547,620</b>	<b>\$0.04784</b>	<b>\$74,045</b>	<b>1,525,339</b>	<b>\$0.04027</b>	<b>\$61,418</b>	<b>(\$12,627)</b>	<b>(\$0.00758)</b>	<b>-15.8%</b>

**TABLE 6**  
**Noncore Electric Generation Rates and Enhanced Oil Recovery Rates**  
**Southern California Gas Company**

**TCAP Phase II Rates**  
TCAP Phase II Application

	Present Rates			Proposed Rates			Changes			
	Jan-1-15	Average	Jan-1-15	Jan-1-17		Jan-1-17	Revenue	Rate	% Rate	
	Volumes	Rate	Revenue	Volumes	Rate	Revenue	Change	Change	change	
	Mth	\$/th	\$000's	Mth	\$/th	\$000's	\$000's	\$/th	%	
	A	B	C	D	E	F	G	H	I	
1										
2	<b>ELECTRIC GENERATION</b>									
3										
4										
5	<b>Small EG Distribution Level Service (a Sempra-Wide rate) Excludes CARB fee &amp; CSITMA:</b>									
6	Customer Charge	147	\$50.00	\$88	201	\$50.00	\$121	\$32	\$0.00000	0.0%
7	Volumetric Rate	42,850	\$0.10380	\$4,448	77,207	\$0.08413	\$6,495	\$2,048	(\$0.01967)	-18.9%
8	Small EG Distribution Level Service	42,850	\$0.10586	\$4,536	77,207	\$0.08569	\$6,616	\$2,080	(\$0.02016)	-19.0%
9										
10	<b>Large EG Distribution Level Service (a Sempra-Wide rate) Excludes CARB Fee &amp; CSITMA</b>									
11	Customer Charge	34	\$0.00	\$0	28	\$0.00	\$0	\$0	\$0.00000	
12	Volumetric Rate	291,119	\$0.03506	\$10,208	207,889	\$0.03068	\$6,378	(\$3,830)	(\$0.00438)	-12.5%
13	Large EG Distribution Level Service	291,119	\$0.03506	\$10,208	207,889	\$0.03068	\$6,378	(\$3,830)	(\$0.00438)	-12.5%
14										
15	EG Distribution excl CARB fee & CSITMA	333,969	\$0.04415	\$14,744	285,096	\$0.04558	\$12,994	(\$1,750)	\$0.00143	3.2%
16										
17	<b>Volumetric Rates Includes CARB fee, Excludes CSITMA</b>									
18	CARB Cost Adder	235,121	\$0.00110	\$260	1,838	\$0.00071	\$1	(\$258)	(\$0.00040)	-35.9%
19	EG-Distribution Tier 1 w/CARB fee		\$0.10490			\$0.08484			(\$0.02006)	-19.1%
20	EG-Distribution Tier 2 w/CARB Fee		\$0.03617			\$0.03139			(\$0.00478)	-13.2%
21	Total - EG Distribution Level	333,969	\$0.04492	\$15,003	285,096	\$0.04558	\$12,995	(\$2,008)	\$0.00066	1.5%
22	CARB Fee Credit \$/th		(\$0.00110)			(\$0.00071)			\$0.00040	-35.9%
23										
24	EG Transmission Level Service Excl CARB fee	1,839,870	\$0.01453	\$26,741	1,655,460	\$0.01311	\$21,701	(\$5,039)	(\$0.00143)	-9.8%
25	EG Transmission Level Service Incl CARB Fee,	801,210	\$0.01564	\$12,529	737,239	\$0.01382	\$10,186	(\$2,343)	(\$0.00182)	-11.6%
26	EG Transmission Level (2)	2,641,080	\$0.01487	\$39,270	2,392,699	\$0.01333	\$31,887	(\$7,382)	(\$0.00154)	-10.4%
27										
28	<b>TOTAL ELECTRIC GENERATION</b>	<b>2,975,049</b>	<b>\$0.01824</b>	<b>\$54,273</b>	<b>2,677,795</b>	<b>\$0.01676</b>	<b>\$44,883</b>	<b>(\$9,390)</b>	<b>(\$0.00148)</b>	<b>-8.1%</b>
29										
30	<b>EOR Rates &amp; Revenue Excludes CARB Fee &amp; CSITMA:</b>									
31	Distribution Level EOR:									
32	Customer Charge	23	\$500.00	\$138	17	\$500.00	\$102	(\$36)	\$0.00000	0.0%
33	Volumetric Rate Excl CARB Fee & CSITMA	109,229	\$0.04366	\$4,769	137,620	\$0.04484	\$6,171	\$1,402	\$0.00118	2.7%
34										
35	<b>Volumetric Rates Includes CARB Fee, Excludes CSITMA</b>									
36	CARB Fee		\$0.00110			\$0.00071				
37	Volumetric Rate Incl CARB fee & Excl CSITMA		\$0.04476			\$0.04555			\$0.00078	1.8%
38	Distribution Level EOR	109,229	\$0.04492	\$4,907	137,620	\$0.04558	\$6,273	\$1,366	\$0.00066	1.5%
39	CARB Fee Credit \$/th		(\$0.00110)			(\$0.00071)			\$0.00040	-35.9%
40										
41	Transmission Level EOR Excludes CARB fee	94,691	\$0.01453	\$1,376	93,950	\$0.01311	\$1,232	(\$145)	(\$0.00143)	-9.8%
42	<b>Total EOR</b>	<b>203,920</b>	<b>\$0.03081</b>	<b>\$6,283</b>	<b>231,570</b>	<b>\$0.03241</b>	<b>\$7,505</b>	<b>\$1,221</b>	<b>\$0.00160</b>	<b>5.2%</b>

1) CSITMA - Noncore C&I D Tariff rate includes CSITMA. Customers exempt, including Constitutionally Exempt, receive Transportation Charge Adj. (TCA).

EG Tariff Rate excludes CSITMA, since EG customers are exempt.

2) CARB Fee - EG-D and NCCI-D rates include CARB Fee.

3) EOR customers tariff includes CARB Fee and excludes CSITMA; since EOR customers are exempt from CSITMA and get a credit for CARB Fee.

See footnotes Table 1

**TABLE 7**  
**Transmission Level Service Transportation Rates**  
**Southern California Gas Company**  
**TCAP Phase II Rates**

TCAP Phase II Application									
	Present Rates			Proposed Rates			Changes		
	Jan-1-15 Volumes Mth A	Average Rate \$/th B	Jan-1-15 BCAP Vols \$000's C	Jan-1-17 Volumes Mth, Mdth D	Rate \$/th E	Jan-1-17 Revenue \$000's F	Revenue Change \$000's G	Rate Change \$/th H	% Rate change % I
	1	<b>Rate Excluding CSITMA &amp; CARB Fee:</b>							
2	Reservation Service Option (RS):								
3		\$0.00597			\$0.00651		\$0.00055	9.2%	
4		\$0.00650			\$0.00327		(\$0.00323)	-49.7%	
5	Class Average Volumetric Rate (CA)								
6		\$0.00803			\$0.00985		\$0.00182	22.6%	
7		\$0.00650			\$0.00327		(\$0.00323)	-49.7%	
8	Class Average Volumetric Rate (CA) \$/th								
9		\$0.01453			\$0.01312		(\$0.00142)	-9.7%	
10	115% CA (for NonBypass Volumetric NV) \$/th								
11		\$0.01671			\$0.01508		(\$0.00163)	-9.7%	
12	135% CA (for Bypass Volumetric BV) \$/th								
13		\$0.01962			\$0.01771		(\$0.00191)	-9.7%	
14	<b>Total Transmission Level Service (NCCI, EOR,</b>	3,295,536	\$0.01453	\$47,897	3,052,937	\$0.01311	\$40,020	(\$7,877)	(\$0.00143) -9.8%
15	<b>C&amp;I Rate Including CSITMA &amp; CARB Fee:</b>								
16	CSITMA Adder to Usage Charge								
17	643,782	\$0.00244	\$1,572	653,799	\$0.00221	\$1,448	(\$124)	(\$0.00023)	
18	CARB Fee Adder								
19	1,455,666	\$0.00110	\$1,607	1,397,477	\$0.00071	\$989		(\$0.00040)	
20	Reservation Service Option (RS):								
21		\$0.00597			\$0.00651		\$0	\$0.00055 9.2%	
22		\$0.01004			\$0.00619		\$0	(\$0.00385) -38.4%	
23	Class Average Volumetric Rate (CA)								
24		\$0.00803			\$0.00985		\$0	\$0.00182 22.6%	
25		\$0.01004			\$0.00619		\$0	(\$0.00385) -38.4%	
26	Class Average Volumetric Rate (CA) \$/th								
27		\$0.01808			\$0.01604		\$0	(\$0.00204) -11.3%	
28	115% CA (for NonBypass Volumetric NV) \$/th								
29		\$0.02026			\$0.01801		\$0	(\$0.00225) -11.1%	
30	135% CA (for Bypass Volumetric BV) \$/th								
31		\$0.02316			\$0.02063		\$0	(\$0.00253) -10.9%	
32	<b>Other Adjustments :</b>								
33	Transportation Charge Adj. (TCA) for CSITMA exempt custor (\$0.00244)								
34		(\$0.00244)			(\$0.00221)			\$0.00023	
35	California Air Resources Board (CARB) Fee Credit \$/th (\$0.00110)								
36		(\$0.00110)			(\$0.00071)			\$0.00040	
37	<b>Total Transmission Level Service Includes C</b>	3,295,536	\$0.01550	\$51,076	3,052,937	\$0.01391	\$42,458	(\$8,618)	(\$0.00159) -10.3%
38	<b>EG &amp; EOR Rate Including CARB, excluding CSITMA:</b>								
39	CARB Fee Adder								
40		\$0.00110			\$0.00071			(\$0.00040)	
41	Reservation Service Option (RS):								
42		\$0.00597			\$0.00651		\$0	\$0.00055 9.2%	
43		\$0.00760			\$0.00397		\$0	(\$0.00363) -47.7%	
44	Class Average Volumetric Rate (CA)								
45		\$0.00803			\$0.00985		\$0	\$0.00182 22.6%	
46		\$0.00760			\$0.00397		\$0	(\$0.00363) -47.7%	
47	Class Average Volumetric Rate (CA) \$/th								
48		\$0.01564			\$0.01382		\$0	(\$0.00181) -11.6%	
49	115% CA (for NonBypass Volumetric NV) \$/th								
50		\$0.01782			\$0.01579		\$0	(\$0.00202) -11.4%	
51	135% CA (for Bypass Volumetric BV) \$/th								
52		\$0.02072			\$0.01842		\$0	(\$0.00231) -11.1%	
53	<b>Other Adjustments :</b>								
54	California Air Resources Board (CARB) Fee Credit \$/th (\$0.00110)								
55		(\$0.00110)			(\$0.00071)			\$0.00040 -35.9%	
56	<b>Rate Excluding CSITMA, CARB Fee, &amp; Uncollectibles (applicable to Wholesale &amp; International):</b>								
57	Reservation Service Option (RS):								
58		\$0.00595			\$0.00650		\$0.00055	9.2%	
59		\$0.00648			\$0.00326		(\$0.00322)	-49.7%	
60	Class Average Volumetric Rate (CA)								
61		\$0.00801			\$0.00982		\$0.00181	22.6%	
62		\$0.00648			\$0.00326		(\$0.00322)	-49.7%	
63	Class Average Volumetric Rate (CA) \$/th								
64		\$0.01449			\$0.01308		(\$0.00141)	-9.7%	
65	115% CA (for NonBypass Volumetric NV) \$/th								
66		\$0.01667			\$0.01504		(\$0.00162)	-9.7%	
67	135% CA (for Bypass Volumetric BV) \$/th								
68		\$0.01956			\$0.01766		(\$0.00191)	-9.7%	
69	<b>Total Transmission Level Service (WS &amp; Int'l)</b>	317,990	\$0.01453	\$4,622	325,403	\$0.01311	\$4,266	(\$356)	(\$0.00143) -9.8%
70	<b>Average Transmission Level Service</b>								
71		3,613,526	\$0.01541	\$55,698	3,378,340	\$0.01383	\$46,723	(\$8,974)	(\$0.00158) -10.3%

**TABLE 8**  
**Backbone Transmission Service and Storage Rates**  
**Southern California Gas Company**  
**TCAP Phase II Rates**

TCAP Phase II Application											
	Present Rates			Proposed Rates			Changes				
	Jan-1-15	Average	Jan-1-15	Jan-1-17	Rate	Jan-1-17	Revenue	Rate	% Rate		
	Volumes	Rate	BCAP Vols	Volumes	Rate	Revenue	Change	Change	change		
	Mth	\$/th	\$000's	Mth, Mdth	\$/th	\$000's	\$000's	\$/th	%		
	A	B	C	D	E	F	G	H	I		
1	<b>Backbone Transmission Service BTS</b>										
2	BTS SFV Reservation Charge	\$/dth/day	2,809	\$0.15777	\$161,782	2,818	\$0.18703	\$192,350	\$30,567	\$0.02926	18.5%
3	BTS MFV Reservation Charge	\$/dth/day		\$0.12622			\$0.14963				
4	BTS MFV Volumetric Charge	\$/dth		\$0.03155			\$0.03741				
5	BTS Interruptible Volumetric Charge	\$/dth		\$0.15777			\$0.18703		\$0.02926	18.5%	
6											
7											
8	<b>Storage Rates: (incl. HRSMA)</b>										
9	Core	\$000		\$52,836		\$0	(\$52,836)				
10	Load Balancing	\$000		\$10,260		\$0	(\$10,260)				
11	Unbundled Storage	\$000		\$26,476		\$0	(\$26,476)				
12				\$89,571				\$0	(\$89,571)		

See footnotes Table 1

- 1) CSITMA - NCCI and EG TLS Tariff rates include CSITMA. Customers exempt (Constitutional Exempt and EG) receive Transportation Charge Adjustment TCA.
- 2) CARB - TLS NCCI, EOR and EG Tariff rates include CSITMA. TLS NCCI, EOR and EG customers exempt as they pay CARB fees directly receive credit.
- 3) Wholesale Customers exclude CSITMA and CARB since these customers are exempt.

**TABLE 1**  
**Natural Gas Transportation Rate Revenues**  
**San Diego Gas & Electric**  
**TCAP Phase II Rates**

TCAP Phase II Application										
	At Present Rates			At Proposed Rates			Changes			Rate change %
	Jan-1-15 Volumes mtherms A	Average Rate \$/therm B	Jan-1-15 Revenues \$000's C	Jan-1-17 Volumes mtherms D	Average Rate \$/therm E	Jan-1-17 Revenues \$000's F	Revenues \$000's G	Rates \$/therm H	Rate change %	
1	<b>CORE</b>									
2	Residential	321,869	\$0.92062	\$296,319	319,982	\$0.74199	\$237,425	(\$58,894)	(\$0.17862)	-19.4%
3	Commercial & Industrial	177,578	\$0.34893	\$61,962	182,660	\$0.16496	\$30,132	(\$31,831)	(\$0.18397)	-52.7%
4										
5	NGV - Pre SempraWide	11,417	\$0.24253	\$2,769	18,501	\$0.05728	\$1,060	(\$1,709)	(\$0.18524)	-76.4%
6	SempraWide Adjustment	11,417	(\$0.08949)	(\$1,022)	18,501	\$0.06109	\$1,130	\$2,152	\$0.15057	-168.3%
7	NGV Post SempraWide	11,417	\$0.15304	\$1,747	18,501	\$0.11837	\$2,190	\$443	(\$0.03467)	-22.7%
8										
9	Total CORE	510,864	\$0.70474	\$360,028	521,144	\$0.51761	\$269,747	(\$90,282)	(\$0.18714)	-26.6%
10	<b>NONCORE COMMERCIAL &amp; INDUSTRIAL</b>									
11										
12	Distribution Level Service	25,161	\$0.05420	\$1,364	27,807	\$0.01663	\$462	(\$901)	(\$0.03757)	-69.3%
13	Transmission Level Service (2)	13,582	\$0.01901	\$258	17,168	\$0.01418	\$243	(\$15)	(\$0.00483)	-25.4%
14	Total Noncore C&I	38,743	\$0.04186	\$1,622	44,975	\$0.01570	\$706	(\$916)	(\$0.02617)	-62.5%
15	<b>NONCORE ELECTRIC GENERATION</b>									
16										
17	Distribution Level Service									
18	Pre Sempra Wide	103,761	\$0.01729	\$1,794	95,807	\$0.00267	\$255	(\$1,539)	(\$0.01462)	-84.6%
19	Sempra Wide Adjustment	103,761	\$0.02947	\$3,058	95,807	\$0.03921	\$3,757	\$699	\$0.00975	33.1%
20	Distribution Level post SW	103,761	\$0.04676	\$4,852	95,807	\$0.04188	\$4,012	(\$839)	(\$0.00488)	-10.4%
21	Transmission Level Service (2)	577,118	\$0.01461	\$8,431	574,075	\$0.01310	\$7,521	(\$910)	(\$0.00151)	-10.3%
22	Total Electric Generation	680,879	\$0.01951	\$13,283	669,882	\$0.01722	\$11,534	(\$1,749)	(\$0.00229)	-11.7%
23										
24	<b>TOTAL NONCORE</b>	719,622	\$0.02071	\$14,904	714,857	\$0.01712	\$12,239	(\$2,665)	(\$0.00359)	-17.3%
25										
26	<b>SYSTEM TOTAL</b>	<b>1,230,486</b>	<b>\$0.30470</b>	<b>\$374,933</b>	<b>1,236,000</b>	<b>\$0.22814</b>	<b>\$281,986</b>	<b>(\$92,947)</b>	<b>(\$0.07656)</b>	<b>-25.1%</b>

- 1) These rates are for Natural Gas Transportation Service from "Citygate to Meter". The BTS rate is for service from Receipt Point to Citygate. BTS is a SoCalGas tariff and service is purchased from SoCalGas.
- 2) Average transmission level service rate is shown here, see Rate Table 6 for detail list of TLS rates.
- 3) All rates include Franchise Fees & Uncollectible charges

**TABLE 2**  
**Core Gas Transportation Rates**  
**San Diego Gas & Electric**  
**January, 2015 Rates**

TCAP Phase II Application

	At Present Rates			At Proposed Rates			Changes		
	Jan-1-15 Volumes mtherms	Average Rate \$/therm	Jan-1-15 Revenues \$000's	Jan-1-17 Volumes mtherms	Average Rate \$/therm	Jan-1-17 Revenues \$000's	Revenues \$000's	Rates \$/therm	Rate change %
	A	B	C	D	E	F	G	H	I
<b>1 RESIDENTIAL RATES Schedule GR,GM</b>									
<b>2 Rates Excluding CSITMA &amp; CAT</b>									
<b>3 Customer Charge \$/month</b>	848,086	\$0.00	\$0	884,624	\$10.00	\$106,155	\$106,155	\$10.00	
<b>4</b>									
<b>5 Baseline \$/therm</b>	217,220	\$0.86716	\$188,364	215,947	\$0.33753	\$72,888	(\$115,476)	(\$0.52963)	-61.1%
<b>6 Non-Baseline \$/therm</b>	104,649	\$1.05344	\$110,241	104,035	\$0.59753	\$62,164	(\$48,077)	(\$0.45591)	-43.3%
<b>7 Average Rate \$/therm</b>	321,869	\$0.92772	\$298,605	319,982	\$0.42206	\$241,207	(\$57,398)	(\$0.50566)	-54.5%
<b>8 NBL/BL Ratio</b>									
<b>9 NBL/BL rate ratio</b>		1.14			1.35				
<b>10 NBL- BL rate difference \$/th</b>					\$0.26000				
<b>11</b>									
<b>12 Rates Including CSITMA, Excluding CAT</b>									
<b>13 CSITMA Adder to Volumetric Rate</b>	256,575	\$0.00407	\$1,045	258,048	\$0.00112	\$288	(\$758)	(\$0.00296)	-72.6%
<b>14 Baseline \$/therm</b>		\$0.87123			\$0.33864			(\$0.53259)	-61.1%
<b>15 Non-Baseline \$/therm</b>		\$1.05751			\$0.59864			(\$0.45887)	-43.4%
<b>16 Average NonCARE Rate \$/therm</b>		\$0.93180			\$0.42318			(\$0.50862)	-54.6%
<b>17</b>									
<b>18 Sub Meter Credit Schedule GS,GT</b>									
<b>19 GS Unit Discount \$/day</b>	6,004	(\$0.29392)	(\$644)	5,870	(\$0.38268)	(\$820)	(\$176)	(\$0.08877)	30.2%
<b>20 GT Unit Discount \$/day</b>	27,745	(\$0.36460)	(\$3,692)	27,189	(\$0.40932)	(\$4,062)	(\$370)	(\$0.04471)	12.3%
<b>21</b>									
<b>22 Schedule GL-1</b>									
<b>23 LNG Facility Charge, domestic use \$/mc</b>	289	\$14.79	\$51	321	\$14.79	\$57		\$0.00000	0.0%
<b>24 LNG Facility Charge, non-domestic \$/mth/mbtu</b>		\$0.05480			\$0.05480			\$0.00000	0.0%
<b>25 LNG Volumetric Surcharge \$/th</b>	100	\$0.16571	\$16	74	\$0.16571	\$12		\$0.00000	0.0%
<b>26</b>			\$68			\$69			
<b>27 Volumetric Rates Including CSITMA &amp; CAT</b>									
<b>28 CAT Adder to Volumetric Rate</b>	247	\$0.00000	\$0	2,764	\$0.00000	\$0	\$0	\$0.00000	
<b>29 Baseline \$/therm</b>		\$0.87123			\$0.33864			(\$0.53259)	-61.1%
<b>30 Non-Baseline \$/therm</b>		\$1.05751			\$0.59864			(\$0.45887)	-43.4%
<b>31 Average Rate \$/therm</b>		\$0.93180			\$0.42318			(\$0.50862)	-54.6%
<b>32</b>									
<b>33 Other Adjustments :</b>									
<b>34 Employee Discount</b>			(\$412)			(\$349)	\$63		
<b>35 SDFFD</b>			\$1,349			\$1,092	(\$257)		
<b>36</b>									
<b>37 Credit for CSITMA Exempt Cutomers:</b>		(\$0.00407)			(\$0.00112)			\$0.00296	-72.6%
<b>38</b>									
<b>39</b>									
<b>40 Total Residential</b>	<b>321,869</b>	<b>\$0.92062</b>	<b>\$296,319</b>	<b>319,982</b>	<b>\$0.74199</b>	<b>\$237,425</b>	<b>(\$58,894)</b>	<b>(\$0.17862)</b>	<b>-19.4%</b>

See footnotes Table 1

**TABLE 3**  
**Natural Gas Transportation Rate Revenues**  
**San Diego Gas & Electric**  
**TCAP Phase II Rates**  
TCAP Phase II Application

	At Present Rates			At Proposed Rates			Changes		
	Jan-1-15 Volumes mtherms A	Average Rate \$/therm B	Jan-1-15 Revenues \$000's C	Jan-1-17 Volumes mtherms D	Average Rate \$/therm E	Jan-1-17 Revenues \$000's F	Revenues \$000's G	Rates \$/therm H	Rate change % I
1 <b>Other Core Rates \$/therm</b>									
2 Schedule GPC - Procurement Price		\$0.42840			\$0.40492			(\$0.02348)	-5.5%
3									
4 <b>CORE COMMERCIAL &amp; INDUSTRIAL RATES Schedule GN-3</b>									
5 Customer Charge \$/month	29,865	\$10.00	\$3,584	30,265	\$10.00	\$3,632	\$48	\$0.00000	0.0%
6									
7 <b>Rates Excluding CSITMA &amp; CAT</b>									
8 Tier 1 = 0 to 1,000 therms/month	79,475	\$0.41947	\$33,337	82,658	\$0.21448	\$17,729	(\$15,609)	(\$0.20499)	-48.9%
9 Tier 2 = 1,001 to 21,000 therms/month	82,322	\$0.25230	\$20,770	84,219	\$0.08958	\$7,544	(\$13,225)	(\$0.16272)	-64.5%
10 Tier 3 = over 21,000 therms/month	15,781	\$0.20507	\$3,236	15,783	\$0.05429	\$857	(\$2,379)	(\$0.15078)	-73.5%
11									
12 <b>Rates Including CSITMA, Excluding CAT</b>									
13 CSITMA Adder to Volumetric Rate	169,353	\$0.00407	\$690	182,649	\$0.00112	\$204	(\$486)	(\$0.00296)	-72.6%
14 Tier 1 = 0 to 1,000 therms/month		\$0.42354			\$0.21560			(\$0.20795)	-49.1%
15 Tier 2 = 1,001 to 21,000 therms/month		\$0.25637			\$0.09069			(\$0.16568)	-64.6%
16 Tier 3 = over 21,000 therms/month		\$0.20915			\$0.05541			(\$0.15374)	-73.5%
17									
18 <b>Rates Including CSITMA &amp; CAT</b>									
19 CAT Adder to Volumetric Rate	23,606	\$0.00000	\$0	35,463	\$0.00000	\$0	\$0	\$0.00000	
20 Tier 1 = 0 to 1,000 therms/month		\$0.42354			\$0.21560			(\$0.20795)	-49.1%
21 Tier 2 = 1,001 to 21,000 therms/month		\$0.25637			\$0.09069			(\$0.16568)	-64.6%
22 Tier 3 = over 21,000 therms/month		\$0.20915			\$0.05541			(\$0.15374)	-73.5%
23									
24 <b>Other Adjustments :</b>									
25 Adjustment for SDDFD			\$346			\$167	(\$179)		
26 Credit for CSITMA Exempt Cutomers:		(\$0.00407)			(\$0.00112)			\$0.00296	-72.6%
27									
28 <b>Total Core C&amp;I</b>	<b>177,578</b>	<b>\$0.34893</b>	<b>\$61,962</b>	<b>182,660</b>	<b>\$0.16496</b>	<b>\$30,132</b>	<b>(\$31,831)</b>	<b>(\$0.18397)</b>	<b>-52.7%</b>

1) CSITMA - Tariff rate includes CSITMA, exempt customers (including CARE participants and Constitutionally Exempt) receive Credit for CSITMA.  
CARE participants receive 20% CARE discount (Tariff rate less Credit for CSITMA Exempt Customers)\*20%

See footnotes Table 1

**TABLE 4**  
**Other Core Gas Transportation Rates**  
**San Diego Gas & Electric**  
**TCAP Phase II Rates**

TCAP Phase II Application

	At Present Rates			At Proposed Rates			Changes		
	Jan-1-15 Volumes mtherms	Average Rate \$/therm	Jan-1-15 Revenues \$000's	Jan-1-17 Volumes mtherms	Average Rate \$/therm	Jan-1-17 Revenues \$000's	Revenues \$000's	Rates \$/therm	Rate change %
	A	B	C	D	E	F	G	H	I
1 <b>NATURAL GAS VEHICLE RATES G-NG</b>	Sempra-Wide NGV Rates			Sempra-Wide NGV Rates					
2 Customer Charge									
3 P1 \$/month	24	\$13.00	\$4	28	\$13.00	\$4	\$1	\$0.00	0.0%
4 P2A \$/month	10	\$65.00	\$8	10	\$65.00	\$8	\$0	\$0.00	0.0%
5									
6 <b>Uncompressed Rate Excl CSITMA &amp; C</b>	11,417	\$0.12819	\$1,464	18,501	\$0.07514	\$1,390	(\$73)	(\$0.05305)	-41.4%
7 Compressor Adder \$/therm Excludes CS	209	\$1.05591	\$220	744	\$1.03712	\$772	\$552	(\$0.01879)	-1.8%
8 Combined transport & compressor adder \$/th		\$1.18410			\$1.11226			(\$0.07184)	-6.1%
9									
10 <b>Volumetric Rates Includes CSITMA, Excludes CAT</b>									
11 CSITMA Adder to Volumetric Rate	11,399	\$0.00407	\$46	11,409	\$0.00112	\$13	(\$34)	(\$0.00296)	-72.6%
12 Uncompressed Rate \$/therm		\$0.13227			\$0.07626		\$0	(\$0.05601)	-42.3%
13 Combined transport & compressor adder \$/th		\$1.18818			\$1.11338			(\$0.07480)	-6.3%
14									
15 <b>Volumetric Rates Includes CSITMA &amp; CAT</b>									
16 CAT Adder to Volumetric Rate		\$0.00000			\$0.00000				
17 Uncompressed Rate \$/therm		\$0.13227			\$0.07626		\$0	(\$0.05601)	-42.3%
18 Combined transport & compressor adder \$/th		\$1.18818			\$1.11338			(\$0.07480)	-6.3%
19 <b>Other Adjustments :</b>									
20 Adjustment for SDDFD 0.491%			\$6			\$3	(\$3)		
21 Credit for CSITMA Exempt Cutomers \$/th		(\$0.00407)			(\$0.00112)			\$0.00296	-72.6%
22									
23									
24 <b>Total NGV</b>	<b>11,417</b>	<b>\$0.15304</b>	<b>\$1,747</b>	<b>18,501</b>	<b>\$0.11837</b>	<b>\$2,190</b>	<b>\$443</b>	<b>(\$0.03467)</b>	<b>-22.7%</b>
25									
26 <b>RESIDENTIAL NATURAL GAS VEHICLES (optional rate)</b>									
27 Customer Charge	848	\$5.00	\$51	885	\$5.00	\$53	\$2	\$0.00	0.0%
28 <b>Uncompressed Rate w/o CSITMA &amp; CA</b>	929	\$0.28739	\$267	969	\$0.21144	\$205	(\$62)	(\$0.07595)	-26.4%
29	929	\$0.34215	\$318	969	\$0.26620	\$258	(\$60)	(\$0.07595)	-22.2%
30									
31 <b>Volumetric Rates Including CSITMA, Excluding CAT</b>									
32 CSITMA Adder to Volumetric Rate		\$0.00407			\$0.00112			(\$0.00296)	-72.6%
33 Uncompressed Rate \$/therm		\$0.29146			\$0.21256			(\$0.07891)	-27.1%
34									
35 <b>Volumetric Rates Includes CSITMA &amp; CAT</b>									
36 CAT Adder to Volumetric Rate	0	\$0.00000	\$0	0	\$0.00000	\$0	\$0	\$0.00000	
37 Uncompressed Rate \$/therm		\$0.29146			\$0.21256		\$0	(\$0.07891)	-27.1%
38									
39 <b>Other Adjustments :</b>									
40 Adjustment for SDDFD			\$0			\$0	\$0		
41 Credit for CSITMA Exempt Cutomers \$/th		(\$0.00407)			(\$0.00112)			\$0.00296	-72.6%
42									
43 <b>Total Res NGV</b>	<b>929</b>	<b>\$0.34215</b>	<b>\$318</b>	<b>969</b>	<b>\$0.26620</b>	<b>\$258</b>	<b>(\$60)</b>	<b>(\$0.07595)</b>	<b>-22.2%</b>

1) CSITMA - Tariff rate includes CSITMA, exempt customers (including CARE participants and Constitutionally Exempt) receive Credit for CSITMA.



**TABLE 5**  
**NonCore Gas Transportation Rates**  
**San Diego Gas & Electric**  
**TCAP Phase II Rates**

TCAP Phase II Application

	At Present Rates			At Proposed Rates			Changes		
	Jan-1-15 Volumes mtherms	Average Rate \$/therm	Jan-1-15 Revenues \$000's	Jan-1-17 Volumes mtherms	Average Rate \$/therm	Jan-1-17 Revenues \$000's	Revenues \$000's	Rates \$/therm	Rate change %
	A	B	C	D	E	F	G	H	I
<b>NonCore Commercial &amp; Industrial Distribution Level</b>									
Customer Charges \$/month	54	\$350.00	\$228	42	\$350.00	\$177	(\$51)	\$0.00	0.0%
<b>Volumetric Charges Incl CARB Fee, Excl CSITMA</b>									
Volumetric Rates \$/therm	25,161	\$0.04161	\$1,047	27,807	\$0.00925	\$257	(\$790)	(\$0.03236)	-77.8%
CSITMA Adder to Volumetric Rate	21,818	\$0.00407	\$89	25,154	\$0.00112	\$28	(\$61)	(\$0.00296)	-72.6%
<b>Volumetric Charges Incl CARB Fee, Incl CSITMA</b>									
Volumetric Rates \$/therm		\$0.04568			\$0.01036			(\$0.03532)	-77.3%
<b>Other Adjustments :</b>									
SDDFD 0.727%									
Credit for CSITMA Exempt Customers \$/th		(\$0.00407)			(\$0.00112)			\$0.00296	-72.6%
Credit for CARB Fee Exempt Customers \$/th		(\$0.00041)			\$0.00004				
<b>NCCI-Distribution Total</b>	<b>25,161</b>	<b>\$0.05420</b>	<b>\$1,364</b>	<b>27,807</b>	<b>\$0.01663</b>	<b>\$462</b>	<b>(\$901)</b>	<b>(\$0.03757)</b>	<b>-69.3%</b>
<b>NCCI-Transmission Total (1)</b>	<b>13,582</b>	<b>\$0.01901</b>	<b>\$258</b>	<b>17,168</b>	<b>\$0.01418</b>	<b>\$243</b>	<b>(\$15)</b>	<b>(\$0.00483)</b>	<b>-25.4%</b>
<b>Total NonCore C&amp;I</b>	<b>38,743</b>	<b>\$0.04186</b>	<b>\$1,622</b>	<b>44,975</b>	<b>\$0.01570</b>	<b>\$706</b>	<b>(\$916)</b>	<b>(\$0.02617)</b>	<b>-62.5%</b>
<b>ELECTRIC GENERATION</b>									
<b>Small EG Distribution Level Service (a Sempra-Wide rate) Excludes CARB Fee &amp; CSITMA</b>									
Customer Charge, \$/month	40	\$50.00	\$24	46	\$50.00	\$28	\$4	\$0.00	0.0%
Volumetric Rate \$/therm	16,347	\$0.10438	\$1,706	19,210	\$0.08460	\$1,625	(\$81)	(\$0.02)	-18.9%
Small EG Distribution Level Service	16,347	\$0.10584	\$1,730	19,210	\$0.08604	\$1,653	(\$77)	(\$0.01980)	-18.7%
<b>Large EG Distribution Level Service (a Sempra-Wide rate) Excludes CARB Fee, CSITMA</b>									
Customer Charge, \$/month		\$0.00			\$0.00			\$0.00	
Volumetric Rate (Incl ITCS) \$/th	87,414	\$0.03526	\$3,082	76,596	\$0.03085	\$2,363	(\$719)	(\$0.00)	-12.5%
EG Distribution excl CARB Fee, CSITMA	103,761	\$0.04638	\$4,812	95,807	\$0.04192	\$4,016	(\$796)	(\$0.00)	-9.6%
<b>Volumetric Rates Including CARB Fee, Excluding CSITMA:</b>									
Carb Fee Cost Adder - Small	14,770	\$0.00041	\$6	17,633	(\$0.00004)	(\$1)	(\$7)	(\$0.00045)	
CARB Fee Cost Adder - Large	81,853	\$0.00041	\$33	71,035	(\$0.00004)	(\$3)			
EG-Distribution Tier 1 Incl CARB fee, Excl CSITMA		\$0.10478			\$0.08456			(\$0.02022)	-19.3%
EG-Distribution Tier 2 Incl CARB Fee, Excl CSITMA		\$0.03567			\$0.03081			(\$0.00486)	-13.6%
Total - EG Distribution Level	103,761	\$0.04676	\$4,852	95,807	\$0.04188	\$4,012	(\$839)	(\$0.00488)	-10.4%
Credit for CARB Fee Exempt Customers \$/th		(\$0.00041)			\$0.00004				
<b>EG Transmission Level Service Excl CARB Fee, Excl CSITMA</b>									
EG Transmission Level Service Excl CARB Fee, Excl CSITMA	471,084	\$0.01453	\$6,847	471,084	\$0.01311	\$6,175			
EG Transmission Level Service Incl CARB Fee, Excl CSITMA	106,034	\$0.01494	\$1,584	102,991	\$0.01307	\$1,346	(\$238)	(\$0.00)	-12.5%
EG Transmission Level Service - Average	577,118	\$0.01461	\$8,431	574,075	\$0.01310	\$7,521			
<b>TOTAL ELECTRIC GENERATION</b>	<b>680,879</b>	<b>\$0.01951</b>	<b>\$13,283</b>	<b>669,882</b>	<b>\$0.01722</b>	<b>\$11,534</b>	<b>(\$1,749)</b>	<b>(\$0.00229)</b>	<b>-11.7%</b>

1) CSITMA - Tariff rate includes CSITMA, exempt customers (including CARE participants and Constitutionally Exempt) receive Credit for CSITMA.

Schedule EG Tariff Rate excludes CSITMA, since EG customers are exempt.

2) EFMA - GTNC and EG Tariff rates includes EFMA. Those EG and GTNC customers that are exempt will receive EFMA credit.

See footnotes Table 1

**TABLE 6**  
**Transmission Level Service Gas Transportation Rates**  
**San Diego Gas & Electric**  
**TCAP Phase II Rates**

TCAP Phase II Application

	At Present Rates			At Proposed Rates			Changes		
	Jan-1-15 Volumes mtherms	Average Rate \$/therm	Jan-1-15 Revenues \$000's	Jan-1-17 Volumes mtherms	Average Rate \$/therm	Jan-1-17 Revenues \$000's	Revenues \$000's	Rates \$/therm	Rate change %
	A	B	C	D	E	F	G	H	I
1	<b>Transmission Level Service Rate Excluding CSITMA &amp; CARB Fee</b>								
2	Reservation Service Option (RS):								
3		\$0.00600			\$0.00655		\$0	\$0.00055	9.2%
4		\$0.00653			\$0.00328		\$0	(\$0.00325)	-49.7%
5									
6	Class Average Volumetric Rate (CA)								
7		\$0.00808			\$0.00991		\$0	\$0.00183	22.6%
8		\$0.00653			\$0.00328		\$0	(\$0.00325)	-49.7%
9	Class Average Volumetric Rate CA \$/th								
10		\$0.01461			\$0.01319		\$0	(\$0.00142)	-9.7%
11	115% CA (for NonBypass Volumetric NV) \$/th								
12	135% CA (for Bypass Volumetric BV) \$/th								
13		\$0.01681			\$0.01517		\$0	(\$0.00164)	-9.7%
14		\$0.01973			\$0.01781		\$0	(\$0.00192)	-9.7%
15	<b>Average Transmission Level Service</b>								
16	590,700	\$0.01453	\$8,585	591,243	\$0.01311	\$7,750	(\$835)	(\$0.00143)	-9.8%
17	<b>C&amp;I Rate Including CSITMA &amp; CARB Fee</b>								
18	13,582	\$0.00407	\$55	17,168	\$0.00112	\$19	(\$36)	(\$0.00296)	-72.6%
19	119,616	\$0.00041	\$49	120,159	(\$0.00004)	(\$5)		(\$0.00045)	
20	Reservation Service Option (RS):								
21		\$0.00600			\$0.00655		\$0	\$0.00055	9.2%
22		\$0.01101			\$0.00436		\$0	(\$0.00666)	-60.4%
23	Class Average Volumetric Rate (CA)								
24		\$0.00808			\$0.00991		\$0	\$0.00183	22.6%
25		\$0.01101			\$0.00436		\$0	(\$0.00666)	-60.4%
26	Class Average Volumetric Rate CA \$/th								
27		\$0.01909			\$0.01426		\$0	(\$0.00483)	-25.3%
28	115% CA (for NonBypass Volumetric NV) \$/th								
29	135% CA (for Bypass Volumetric BV) \$/th								
30		\$0.02129			\$0.01624		\$0	(\$0.00504)	-23.7%
31		\$0.02421			\$0.01888		\$0	(\$0.00533)	-22.0%
32	<b>Other Adjustments:</b>								
33		(\$0.00407)			(\$0.00112)			\$0.00296	-72.6%
34		(\$0.00041)			\$0.00004			\$0.00045	-110.1%
35	<b>EG Rate Including CARB Fee, excluding CSITMA:</b>								
36		\$0.00041			(\$0.00004)			(\$0.00045)	
37	Reservation Service Option (RS):								
38		\$0.00600			\$0.00655		\$0	\$0.00055	9.2%
39		\$0.00694			\$0.00324		\$0	(\$0.00370)	-53.3%
40	Class Average Volumetric Rate (CA)								
41		\$0.00808			\$0.00991		\$0	\$0.00183	22.6%
42		\$0.00694			\$0.00324		\$0	(\$0.00370)	-53.3%
43	Class Average Volumetric Rate CA \$/th								
44		\$0.01502			\$0.01315		\$0	(\$0.00187)	-12.5%
45	115% CA (for NonBypass Volumetric NV) \$/th								
46	135% CA (for Bypass Volumetric BV) \$/th								
47		\$0.01721			\$0.01513		\$0	(\$0.00208)	-12.1%
48		\$0.02013			\$0.01777		\$0	(\$0.00237)	-11.8%
49	<b>Other Adjustments:</b>								
50		(\$0.00041)			\$0.00004			\$0.00045	-110.1%
51	<b>Average Transmission Level Service</b>								
52	590,700	\$0.01471	\$8,689	591,243	\$0.01313	\$7,765	(\$924)	(\$0.00158)	-10.7%

See footnotes Table 1

# **Appendix B**



American Gas Association

# Energy Analysis

POLICY ANALYSIS GROUP  
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## NATURAL GAS UTILITY RATE STRUCTURE: THE CUSTOMER CHARGE COMPONENT – 2015 UPDATE

### I. Introduction

The largest part of a natural gas customer's bill is the cost of the gas itself, over which the utility has little control. This cost accounts for about 41 cents of every dollar of revenue received by a distribution utility.<sup>1</sup> The bill amount for the gas portion varies with price as well as amount consumed. Natural gas utilities also incur costs that are not dependent on a customer's consumption. These "fixed" costs may include:

- Meter reading
- Billing
- Fixed costs on plant and equipment
  - Depreciation and taxes
  - Distribution mains, meters, and service lines
- Most administrative and general expenses
  - Wages
  - Buildings, energy, etc.
- Natural gas storage
- Customer and service O&M

Most utilities recover at least a portion of these costs through a fixed charge on a customer's bill. This is most often called the "customer charge", but is also called minimum bill, facility charge, service charge, fixed charge, and access fee. In addition to recovering some of the fixed costs, the customer charge also represents a fee for "readiness to

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<sup>1</sup> 2011-2013 Performance Benchmarks for Natural Gas Utilities, American Gas Association, January 31, 2015

serve”, even if the customer does not use any gas for that billing period.<sup>2</sup> This charge is typically determined between the utility and its government regulators through a rate case.

In the past few years the customer charge has increased in prominence in gas utility rate cases. In some cases utilities are finding it difficult to achieve authorized rates of return in an unpredictable gas market due in part to:

- declining use per customer;
- significant swings in the commodity cost of natural gas;
- increased costs from recent legal and regulatory mandates (pipeline safety, pension, etc.); and,
- growing bad debt costs.

Some companies have sought to increase their customer charges to better capture the actual fixed costs of serving these customers, citing the following benefits:

- moderates volatility in customer bills;
- encourages utilities to promote customer conservation;
- makes utility earnings less dependent on sales volumes;
- improves cash flow, mitigating need for working capital;
- reduces winter bills for high use customers;
- reduces the need for future rate cases; and;
- Is a more appropriate way to recover fixed costs.

This analysis updates a report done five years ago.<sup>3</sup> The purpose of this analysis is to illustrate the current levels of customer charges, estimate the portion of fixed costs that these charges cover, and track their historical growth.

## **II. Executive Summary**

The customer charge is a part of the natural gas utility customer’s bill that does not vary with consumption. Based on Internet searches and AGA surveys, this charge:

- is typically \$11.25 per month for residential customers and \$22 for small commercial customers (median values represent about 237 rate jurisdictions);
- represents approximately 19 percent of a residential customer’s annual bill;
- typically recovers only 46 percent of a utility’s actual fixed costs; and,
- would be about \$24 per month for the residential sector, on average, in order to recover all of a utility’s typical fixed costs.

## **III. Current Customer Charge Levels**

A February 2015 internet search of natural gas utility tariffs provided data on customer charges for 197 rate jurisdictions in all states and the District of Columbia (see Appendix

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<sup>2</sup> Gas Rate Fundamentals, American Gas Association, 1987

<sup>3</sup> *Natural Gas Utility Rate Structure: The Customer Charge Component – 2010 Update* American Gas Association April 9, 2010.

1). Residential (excluding master metered apartments) and small commercial<sup>4</sup> rates were examined.

The median customer charge for the residential sector was \$11.25 per month, with 75 percent of the companies having a residential customer charge of \$15.38 or less. The highest charge was \$45.06. The commercial customer charges showed a wider variation. For the small commercial customer, the median monthly customer charge was \$22.00, with 75 percent at or below \$30.31. The high for this sector was \$304.94<sup>5</sup>.

Table 1  
**2015 Natural Gas Utility Monthly Customer Charges**

	First Quartile	Median	Third Quartile
Residential	\$9.00	\$11.25	\$15.38
Commercial	\$15.00	\$22.00	\$30.31

Based on that \$11.25 monthly figure, the customer charge comprises 19 percent of the typical residential customer’s annual natural gas bill.<sup>6</sup>

The utilities were grouped by Census region to determine if charges varied by location. The median residential charge was highest in the Middle Atlantic region at \$14.60 per month, compared to the lowest charge of \$4.95 in the Pacific region. (See Appendix 2 for a map of the Census regions.) The highest median monthly commercial customer charge (\$28.41) occurred in the New England region, while the Pacific region again had the lowest (\$14.90 – see Table 2).

Table 2  
**2015 Natural Gas Utility Median Monthly Customer Charges by Census Region**

Census Region	Residential	Commercial
New England	\$ 13.50	\$ 28.41
Middle Atlantic	\$ 14.60	\$ 23.60
East North Central	\$ 11.38	\$ 24.00
West North Central	\$ 13.16	\$ 24.40
South Atlantic	\$ 10.00	\$ 22.00
East South Central	\$ 14.00	\$ 16.96
West South Central	\$ 13.24	\$ 18.51
Mountain	\$ 10.80	\$ 20.00
Pacific	\$ 4.95	\$ 14.90

It should be noted that these variations in customer charges are caused by a number of factors, such as:

- the company itself – age of system, number of customers, employee wages and benefits, etc.;

<sup>4</sup> For tariffs with more than one commercial category, the lowest level of consumption was selected.

<sup>5</sup> One tariff had a commercial customer charge in excess of \$1,000, which was not included in the sample

<sup>6</sup> Based on a total bill of \$718 per customer calculated from Gas Facts 2013 Data

- local regulatory environment – regulatory philosophy (particularly in California), intervenor activity, etc.;
- geographic location – climate, cost to install mains (e.g. rocky ground = higher cost, so proportionally more fixed costs compared to sandy soils), etc.; and,
- rate case frequency – companies that have not had a rate case in a relatively long time tend to have a relatively lower fixed charge.

#### IV. Customer Charges Relative to Utility Fixed Costs

The customer charge recovers only a percentage of the utility’s actual fixed costs, with the remainder of the fixed costs allocated to volumetric charges. In the spring of 2015, the American Gas Association asked its members,

***What percentage of the utility's fixed costs for the residential sector do you estimate is recovered in the residential monthly customer/service charge?***

Companies representing more than 62 rate jurisdictions in 32 states and the District of Columbia responded. The median recovery value of responders was 46 percent of actual fixed costs on a monthly basis. Only five responders estimated that they recovered 25 percent or less of the fixed costs through the customer charge (Table 3). Based on an \$11.25 median monthly charge, on average the customer charge would be about \$24 in order to recover all of a utility’s fixed costs on a monthly basis.<sup>7</sup>

Table 3  
**Portion of Fixed Costs Recovered by Customer Charge – Monthly Basis**

At Most 25%	5 Companies
At Most 50%	22 Companies
At Most 75%	8 Companies

Source: AGA Survey, 2015

On a monthly basis, the percentage of fixed costs recovered by the customer charge varied by geographic area (Table 4). The highest reported recovery portion is in the West South Central section of the country, while the lowest occurred in the Pacific region.

Table 4  
**Regional Breakout of Portion of Fixed Costs Recovered by Customer Charge (Medians) – Monthly Basis**

New England	31%
Middle Atlantic	34%
East North Central	64%
West North Central	55%
South Atlantic	48%
East South Central	48%
West South Central	85%
Mountain	42%
Pacific	16%

Source: AGA Survey, 2015

<sup>7</sup> Median charge of \$11.25/month divided by 0.46 (portion of fixed costs recovered)

## V. Comparison to Previous Report

This report updates an analysis from 2010. Of the 133 gas utility rate jurisdictions in both samples, 83, or 62 percent, increased their residential customer charge since 2010. For these companies, the average increase was \$1.25 for the residential class. There was no change for 41 companies and six had a decline in their residential customer charge. For the commercial sector, the median increased \$2.93 (Table 5). Regionally the largest increase in residential customer charge occurred in the East South Central (\$4.00), and the lowest was a negative value (-\$1.05) in the Pacific.

Table 5  
**Natural Gas Utility Median Monthly Customer Charges 2010 vs. 2015**

Census Region	2010		2015	
	Residential	Commercial	Residential	Commercial
New England	\$ 10.94	\$ 18.60	\$ 13.50	\$ 28.41
Middle Atlantic	\$ 12.57	\$ 19.89	\$ 14.60	\$ 23.60
East North Central	\$ 10.38	\$ 17.65	\$ 11.38	\$ 24.00
West North Central	\$ 12.13	\$ 20.10	\$ 13.16	\$ 24.40
South Atlantic	\$ 9.31	\$ 19.00	\$ 10.00	\$ 22.00
East South Central	\$ 10.00	\$ 25.00	\$ 14.00	\$ 16.96
West South Central	\$ 10.85	\$ 20.70	\$ 13.24	\$ 18.51
Mountain	\$ 9.50	\$ 21.00	\$ 10.80	\$ 20.00
Pacific	\$ 6.00	\$ 11.50	\$ 4.95	\$ 14.90
United States	\$ 10.00	\$ 19.07	\$ 11.25	\$ 22.00

Source: AGA Surveys, 2010 & 2015

Five years ago, AGA had surveyed its members, asking utilities to estimate what portion of their fixed costs were recovered by the customer charge. The results show that utilities today recover slightly more of their fixed costs through the fixed charge, but still less than 50 percent on average (Table 6). The largest relative increase in this proportion occurred in the South Atlantic region. Four of the nine Census regions exhibited a reduction in the portion of fixed costs recovered by the fixed charge.

Table 6  
**Regional Breakout of Portion of Monthly Fixed Costs Recovered by Customer Charge (Medians), 2010 vs. 2015**

	2010	2015
New England	36%	31%
Middle Atlantic	40%	34%
East North Central	47%	64%
West North Central	47%	55%
South Atlantic	22%	48%
East South Central	46%	48%
West South Central	88%	85%
Mountain	30%	42%
Pacific	23%	16%
United States	40%	46%

Source: AGA Surveys, 2010 & 2015



## VI. Trends in Customer Charges

AGA surveys its members regarding customer bills on a quarterly basis. Results are available back to December 1985. While the survey does not specifically cover customer charges, it does ask what a customer's bill would be if the customer did not use any gas that month ("zero use"). The historical values for "zero use" should be a good indicator of trends in customer charges.

Table 7 shows the historical average values for residential "zero use" bills for the month of December for various years. The average value started out at \$4.91 in 1985. By 2014, the average value had risen to \$13.95.

Table 7  
**Trends in Average Residential Customer Charge Levels, 1985-2014**

12/85	12/90	12/95	12/01*	12/05	12/10	12/14
\$4.91	\$5.47	\$6.73	\$8.04	\$8.91	\$12.49	\$13.95

Source – AGA Surveys

\* December 2000 data not available

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## Appendix 1

**NATURAL GAS CUSTOMER CHARGE**

<u>Company</u>	<u>State</u>	<u>Small</u>	
		<u>Residential</u>	<u>Commercial</u>
CONTINENTAL ENERGY - ENSTAR NATURAL GAS CO	AK	\$ 14.00	\$ 30.00
SEMPRA - MOBILE GAS SERVICE	AL	\$ 8.50	\$ 16.30
ARKANSAS OKLAHOMA GAS CORP - AR	AR	\$ 10.70	\$ 15.95
CENTERPOINT ARKLA AR	AR	\$ 9.75	\$ 13.00
SOURCEGAS LLC AR	AR	\$ 10.20	\$ 18.51
SOUTHWEST GAS CORP AZ	AZ	\$ 10.70	\$ 27.50
UNISOURCE ENERGY SERVICES	AZ	\$ 10.00	\$ 20.00
PACIFIC GAS & ELECTRIC CO	CA	\$ -	\$ 8.10
SEMPRA - SAN DIEGO GAS & ELECTRIC CO	CA	\$ -	\$ 10.00
SEMPRA - SOUTHERN CALIFORNIA GAS CO	CA	\$ 4.90	\$ 14.80
SOUTHWEST GAS CORP CA	CA	\$ 5.00	\$ 11.00
ATMOS ENERGY CORPORATION CO	CO	\$ 11.00	\$ 26.28
BLACK HILLS ENERGY - CO	CO	\$ 10.08	\$ 15.12
COLORADO SPRINGS, CITY OF	CO	\$ 11.79	\$ 23.58
SOURCEGAS LLC CO	CO	\$ 10.00	\$ 20.00
XCEL - PUBLIC SERVICE CO OF COLORADO	CO	\$ 11.50	\$ 32.08
UIL - CONNECTICUT NATURAL GAS CORP	CT	\$ 16.50	\$ 47.50
UIL - SOUTHERN CONNECTICUT GAS CO	CT	\$ 14.00	\$ 35.00
YANKEE GAS SERVICES CO	CT	\$ 18.50	\$ 46.00
WASHINGTON GAS LIGHT CO DC	DC	\$ 9.90	\$ 17.10
CHESAPEAKE UTILITY CORP DE	DE	\$ 10.50	\$ 26.00
DELMARVA POWER & LIGHT COMPANY	DE	\$ 11.41	\$ 34.37
AGL - FLORIDA CITY GAS	FL	\$ 8.00	\$ 9.50
CHESAPEAKE UTILITY CORP FL	FL	\$ 11.00	\$ 20.00
GAINESVILLE REGIONAL UTIL GAS DEPT	FL	\$ 9.75	
TECO PEOPLES GAS SYSTEM INC	FL	\$ 12.00	\$ 25.00
AGL - ATLANTA GAS LIGHT CO	GA	\$ 11.00	\$ 45.00
LIBERTY UTILITIES GA	GA	\$ 26.31	\$ 55.60

## Appendix 1 - Continued

**NATURAL GAS CUSTOMER CHARGE**

<u>Company</u>	<u>State</u>	<u>Small</u>	
		<u>Residential</u>	<u>Commercial</u>
THE GAS COMPANY	HI	\$ 8.50	\$ 62.00
ALLIANT - INTERSTATE P&L IA	IA	\$ 12.82	
BLACK HILLS ENERGY - IA	IA	\$ 18.25	\$ 29.00
LIBERTY UTILITIES IA	IA	\$ 7.95	\$ 13.00
MIDAMERICAN ENERGY COMPANY IA	IA	\$ 10.00	
AVISTA CORP - ID	ID	\$ 8.00	\$ 12.00
MONTANA - DAKOTA UTILITIES INTERMOUNTAN	ID	\$ 6.50	\$ 9.50
AGL - NICOR	IL	\$ 13.55	\$ 20.80
AMEREN - ILLINOIS	IL	\$ 22.31	\$ 39.77
INTEGRYS - NORTH SHORE GAS CO	IL	\$ 24.48	\$ 29.56
INTEGRYS - PEOPLES GAS LIGHT & COKE CO	IL	\$ 30.83	\$ 38.24
LIBERTY UTILITIES IL	IL	\$ 9.90	\$ 25.00
MIDAMERICAN ENERGY COMPANY IL	IL	\$ 12.69	\$ 93.18
MT CARMEL PUBLIC UTILITY CO	IL	\$ 15.00	\$ 15.00
CITIZENS GAS & COKE UTILITY	IN	\$ 9.00	\$ 22.00
NISOURCE - NIPSCO	IN	\$ 11.00	\$ 30.00
VECTREN - INDIANA GAS CO INC	IN	\$ 11.25	\$ 17.00
VECTREN - SOUTHERN INDIANA GAS & ELECTRIC CO	IN	\$ 11.00	\$ 22.00
ATMOS ENERGY CORPORATION KS	KS	\$ 18.19	\$ 40.88
BLACK HILLS ENERGY - KS	KS	\$ 17.25	\$ 26.45
ONEOK - KANSAS GAS SERVICE	KS	\$ 15.35	\$ 28.65
ATMOS ENERGY CORPORATION - KY	KY	\$ 16.00	\$ 40.00
DELTA NATURAL GAS CO INC	KY	\$ 20.90	\$ 31.30
DUKE ENERGY KENTUCKY	KY	\$ 16.00	\$ 47.50
EQUITABLE RESOURCES KY	KY	\$ 7.50	\$ 7.50
LOUISVILLE GAS & ELECTRIC CO	KY	\$ 13.50	\$ 35.00
NISOURCE - COLUMBIA GAS OF KENTUCKY INC	KY	\$ 15.00	\$ 37.50
RICHMOND NATURAL GAS & SEWAGE WKS	KY	\$ 15.49	\$ 15.49
ATMOS ENERGY CORPORATION LA	LA	\$ 13.96	\$ 23.24
ATMOS ENERGY CORPORATION TRANS LA	LA	\$ 14.00	\$ 14.00
CENTERPOINT ARKLA LA	LA	\$ 10.00	\$ 16.00
CENTERPOINT ENTEX LA	LA	\$ 11.25	\$ 16.00
ENTERGY NEW ORLEANS, INC	LA	\$ 20.40	\$ 112.58

## Appendix 1 - Continued

**NATURAL GAS CUSTOMER CHARGE**

<u>Company</u>	<u>State</u>	<u>Small</u>	
		<u>Residential</u>	<u>Commercial</u>
HOLYOKE GAS & ELECTRIC DEPT, CITY OF	MA	\$ 6.00	\$ 10.00
LIBERTY UTILITIES MA	MA	\$ 9.90	\$ 22.00
NATIONAL GRID - BOSTON GAS CO	MA	\$ 10.00	\$ 21.00
NATIONAL GRID - COLONIAL GAS CO	MA	\$ 6.00	
NATIONAL GRID - ESSEX COUNTY GAS CO	MA	\$ 21.00	\$ 39.00
NISOURCE - COLUMBIA GAS OF MASSACHUSETTS INC	MA	\$ 12.20	\$ 19.80
UIL - BERKSHIRE GAS CO	MA	\$ 11.42	\$ 12.51
UNITIL - FITCHBURG GAS & ELECTRIC LIGHT CO	MA	\$ 8.50	\$ 24.00
AGL - ELKTON GAS SERVICE	MD	\$ 5.75	\$ 11.00
BALTIMORE GAS & ELECTRIC CO	MD	\$ 13.00	\$ 35.00
CHESAPEAKE UTILITY CORP MD	MD	\$ 8.75	\$ 17.25
EASTON UTILITIES COMMISSION	MD	\$ 9.65	\$ 33.25
NISOURCE - COLUMBIA GAS OF MARYLAND INC	MD	\$ 13.62	\$ 36.68
UGI - CENTRAL PENN GAS, INC MD	MD	\$ 9.68	
WASHINGTON GAS LIGHT CO MD	MD	\$ 10.20	\$ 18.50
ENERGY EAST - MAINE NATURAL GAS	ME	\$ 24.34	\$ 34.77
GAS NATURAL - BANGOR GAS CO LLC	ME	\$ 14.29	
UNITIL - NORTHERN UTILITIES INC (ME)	ME	\$ 23.06	\$ 54.77
CONSUMERS ENERGY CO	MI	\$ 11.50	\$ 12.50
CONTINENTAL ENERGY - SEMCO	MI	\$ 11.50	\$ 11.50
DTE - CITIZENS GAS FUEL CO	MI	\$ 10.50	\$ 20.00
DTE - MICHIGAN CONSOLIDATED	MI	\$ 10.50	\$ 26.20
INTEGRYS - MICHIGAN GAS UTILITIES CO	MI	\$ 12.00	\$ 33.00
INTEGRYS - WISCONSIN PUBLIC SERVICE CORP MI	MI	\$ 5.00	\$ 7.50
XCEL - NORTHERN STATES POWER CO OF MICHIGAN	MI	\$ 7.25	\$ 16.00
ALLIANT - INTERSTATE P&L MN	MN	\$ 5.00	
CENTERPOINT ENERGY MN	MN	\$ 9.50	\$ 15.00
INTEGRYS - MERC MN	MN	\$ 8.50	\$ 14.50
MONTANA - DAKOTA UTILITIES GREAT PLAINS MN	MN	\$ 6.50	\$ 20.00
XCEL - NORTHERN STATES POWER CO OF MINNESOTA	MN	\$ 9.00	\$ 25.00
AMEREN - UNION ELECTRIC CO	MO	\$ 15.00	\$ 28.83
LACLEDE GAS CO	MO	\$ 20.70	\$ 25.50
LIBERTY UTILITIES MO	MO	\$ 20.00	\$ 23.80
SOUTHERN UNION - MISSOURI GAS ENERGY	MO	\$ 27.87	\$ 40.74
THE EMPIRE DISTRICT GAS COMPANY	MO	\$ 16.50	\$ 25.00
ATMOS ENERGY CORPORATION MS	MS	\$ 6.95	\$ 11.27
CENTERPOINT ENTEX MS	MS	\$ 11.29	\$ 16.96

## Appendix 1 - Continued

**NATURAL GAS CUSTOMER CHARGE**

<u>Company</u>	<u>State</u>	<u>Small</u>	
		<u>Residential</u>	<u>Commercial</u>
MONTANA - DAKOTA UTILITIES CO MT	MT	\$ 6.90	\$ 12.00
NORTHWESTERN ENERGY LLC MT	MT	\$ 7.30	\$ 19.00
GREENVILLE UTILITIES COMMISSION	NC	\$ 8.00	\$ 22.00
PIEDMONT NATURAL GAS CO INC NC	NC	\$ 10.00	\$ 22.00
SCANA - PUBLIC SERVICE CO OF NORTH CAROLINA	NC	\$ 10.00	\$ 17.50
MONTANA - DAKOTA UTILITIES CO ND	ND	\$ 14.81	\$ 20.10
MONTANA - DAKOTA UTILITIES GREAT PLAINS ND	ND	\$ 3.50	\$ 3.50
XCEL - NORTHERN STATES POWER CO OF NORTH DAKOTA	ND	\$ 18.48	\$ 30.00
BLACK HILLS ENERGY - NE	NE	\$ 13.50	\$ 18.50
METROPOLITAN UTILITIES DISTRICT	NE	\$ 13.72	
MIDAMERICAN ENERGY COMPANY NE	NE	\$ 10.00	\$ 135.10
NORTHWESTERN ENERGY LLC NE	NE	\$ 8.00	\$ 9.00
SOURCEGAS LLC NE	NE	\$ 15.00	\$ 23.05
LIBERTY UTILITIES NH	NH	\$ 19.85	\$ 46.71
NATIONAL GRID - ENERGY NORTH NATURAL GAS INC	NH	\$ 8.00	\$ 11.00
UNITIL - NORTHERN UTILITIES, INC. (NH)	NH	\$ 20.01	\$ 63.18
AGL - ELIZABETHTOWN GAS CO	NJ	\$ 8.00	\$ 16.50
NEW JERSEY NATURAL GAS CO	NJ	\$ 8.25	\$ 25.00
PUBLIC SERVICE ELECTRIC & GAS CO	NJ	\$ 5.46	\$ 10.44
SOUTH JERSEY GAS CO	NJ	\$ 9.63	\$ 29.16
CONTINENTAL ENERGY - NEW MEXICO GAS	NM	\$ 11.50	\$ 20.00
NATURAL GAS PROCESSING - ZIA NATURAL GAS CO	NM	\$ 10.96	\$ 300.00
NV ENERGY	NV	\$ 14.00	\$ 18.00
SOUTHWEST GAS CORP NV	NV	\$ 10.80	\$ 25.80
CENTRAL HUDSON GAS & ELECTRIC CORP	NY	\$ 17.03	\$ 24.33
CONSOLIDATED EDISON - ORANGE & ROCKLAND UTILITY INC	NY	\$ 18.63	\$ 29.08
CONSOLIDATED EDISON CO OF NEW YORK	NY	\$ 18.60	\$ 30.45
CORNING NATURAL GAS CORP	NY	\$ 19.75	\$ 1,220.00
ENERGY EAST - NYSEG	NY	\$ 16.30	\$ 23.60
ENERGY EAST - ROCHESTER GAS & ELECTRIC	NY	\$ 16.30	
NATIONAL FUEL GAS DISTRIBUTION CORP - NEW YORK	NY	\$ 15.54	\$ 7.10
NATIONAL GRID - LONG ISLAND	NY	\$ 21.66	\$ 17.60
NATIONAL GRID - NIAGARA MOHAWK	NY	\$ 20.35	\$ 24.22
NATIONAL GRID - NY CITY	NY	\$ 45.06	\$ 76.91
ST LAWRENCE GAS CO INC	NY	\$ 15.00	\$ 25.00
VALLEY ENERGY, INC.	NY	\$ 7.62	\$ 7.62

## Appendix 1 - Continued

**NATURAL GAS CUSTOMER CHARGE**

<u>Company</u>	<u>State</u>	<u>Small</u>	
		<u>Residential</u>	<u>Commercial</u>
DOMINION EAST OHIO	OH	\$ 23.58	\$ 26.00
DUKE ENERGY OHIO	OH	\$ 33.03	\$ 91.64
NISOURCE - COLUMBIA GAS OF OHIO INC	OH	\$ 24.69	\$ 24.69
VECTREN ENERGY DELIVERY OF OHIO	OH	\$ 18.37	\$ 20.00
ARKANSAS OKLAHOMA GAS CORP - OK	OK	\$ 15.65	\$ 30.15
CENTERPOINT ARKLA OK	OK	\$ 13.24	\$ 43.59
ONEOK - OKLAHOMA NATURAL GAS CO	OK	\$ 14.73	\$ 30.28
AVISTA CORP - OR	OR	\$ 4.25	\$ 95.00
MONTANA - DAKOTA UTILITIES CASCADE OR	OR	\$ 3.00	\$ 3.00
NORTHWEST NATURAL GAS CO OR	OR	\$ 8.00	\$ 15.00
EQUITABLE RESOURCES PA	PA	\$ 13.25	\$ 17.00
NATIONAL FUEL GAS DISTRIBUTION CORP PA	PA	\$ 12.00	
NISOURCE - COLUMBIA GAS OF PENNSYLVANIA	PA	\$ 16.75	\$ 21.25
PECO ENERGY CO	PA	\$ 11.75	\$ 28.55
PEOPLES NATURAL GAS COMPANY	PA	\$ 13.95	\$ 14.88
PHILADELPHIA GAS WORKS	PA	\$ 12.00	\$ 18.00
UGI - CENTRAL PENN GAS, INC PA	PA	\$ 14.60	\$ 30.40
UGI - PENN NATURAL GAS PA	PA	\$ 2.19	\$ 2.80
UGI - UGI UTILITIES, INC PA	PA	\$ 8.55	\$ 8.55
NATIONAL GRID - RI	RI	\$ 13.00	\$ 22.00
GREENWOOD COMMISSION OF PUBLIC WORKS	SC	\$ 10.00	\$ 16.25
PIEDMONT NATURAL GAS CO INC SC	SC	\$ 17.45	\$ 44.00
SCANA - SOUTH CAROLINA ELECTRIC & GAS CO	SC	\$ 10.90	\$ 21.54
MIDAMERICAN ENERGY COMPANY SD	SD	\$ 8.87	\$ 304.94
MONTANA - DAKOTA UTILITIES CO SD	SD	\$ 8.40	\$ 10.50
NORTHWESTERN ENERGY LLC SD	SD	\$ 8.00	\$ 10.00
AGL - CHATTANOOGA GAS CO	TN	13/16	25/29
ATMOS ENERGY CORPORATION TN	TN	\$ 15.40	\$ 13.85
KNOXVILLE UTILITIES BOARD	TN	\$ 6.65	\$ 13.00
MEMPHIS LIGHT GAS & WATER DIVISION	TN	\$ 10.00	
MIDDLE TENNESSEE NATURAL GAS UTIL DIST	TN	\$ 7.00	\$ 16.00
PIEDMONT NATURAL GAS CO INC TN	TN	\$ 17.45	\$ 44.00
ATMOS ENERGY CORPORATION TX	TX	\$ 18.20	\$ 38.50
CENTERPOINT ENTEX TX	TX	\$ 15.29	\$ 17.24
CORPUS CHRISTI, CITY OF - GAS DIV	TX	\$ 11.44	\$ 26.30
COSERV GAS, LTD	TX	\$ 7.00	\$ 13.30
QUESTAR GAS COMPANY UT	UT	\$ 6.75	\$ 18.25

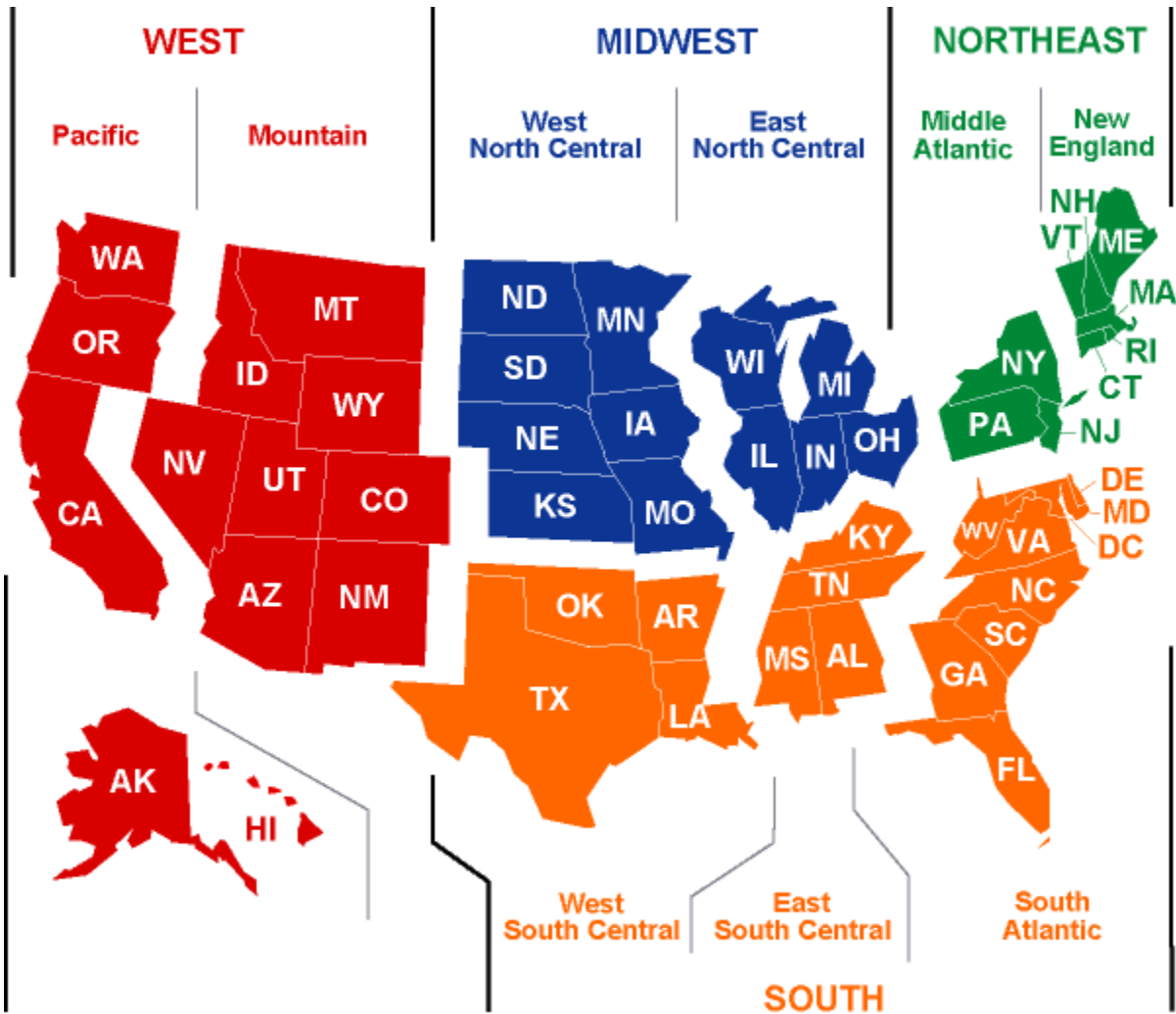
## Appendix 1 - Continued

**NATURAL GAS CUSTOMER CHARGE**

<u>Company</u>	<u>State</u>	<u>Small</u>	
		<u>Residential</u>	<u>Commercial</u>
AGL - VIRGINIA NATURAL GAS	VA	\$ 11.00	\$ 14.10
ATMOS ENERGY CORPORATION VA	VA	\$ 10.98	\$ 22.00
CHARLOTTESVILLE, CITY OF	VA	\$ 10.00	\$ 10.00
NISOURCE - COLUMBIA GAS OF VIRGINIA INC	VA	\$ 18.00	\$ 22.00
RICHMOND, CITY OF	VA	\$ 11.70	\$ 13.83
SOUTHWESTERN VIRGINIA GAS CO	VA	\$ 9.55	\$ 12.75
WASHINGTON GAS LIGHT CO VA	VA	\$ 11.25	\$ 20.45
VERMONT GAS SYSTEMS INC	VT	\$ 19.80	\$ 32.82
AVISTA CORP - WA	WA	\$ 9.00	\$ 87.40
MONTANA - DAKOTA UTILITIES CASCADE WA	WA	\$ 4.00	\$ 10.00
NORTHWEST NATURAL GAS CO WA	WA	\$ 7.00	\$ 15.00
PUGET SOUND ENERGY	WA	\$ 10.29	\$ 33.42
ALLETE - SUPERIOR WATER LIGHT & POWER CO	WI	\$ 7.25	\$ 15.00
ALLIANT - WISCONSIN POWER & LIGHT CO	WI	\$ 1.51	
CITY GAS CO	WI	\$ 8.50	\$ 12.75
INTEGRYS - WISCONSIN PUBLIC SERVICE CORP WI	WI	\$ 17.00	\$ 30.00
MADISON GAS & ELECTRIC CO	WI	\$ 21.60	\$ 24.00
WE ENERGIES	WI	\$ 9.90	\$ 25.50
WISCONSIN GAS CO	WI	\$ 9.90	\$ 25.50
XCEL - NORTHERN STATES POWER CO OF WISCONSIN	WI	\$ 10.25	\$ 20.00
DOMINION HOPE	WV	\$ 8.99	\$ 17.97
EQUITABLE RESOURCES - Peoples WV	WV	\$ 8.50	\$ 12.50
MOUNTAINEER GAS CO	WV	\$ 10.10	\$ 31.75
MONTANA - DAKOTA UTILITIES CO WY	WY	\$ 12.00	\$ 27.00
QUESTAR GAS COMPANY WY	WY	\$ 11.00	\$ 32.50
SOURCEGAS LLC WY	WY	\$ 15.00	\$ 70.00

Source: Spring 2015 Internet Search of Natural Gas Utility Tariffs

APPENDIX 2  
U.S. CENSUS REGIONS



Source: U.S. Dept. of Energy [http://www.eia.doe.gov/emeu/cbecs/census\\_maps.html](http://www.eia.doe.gov/emeu/cbecs/census_maps.html)