

Exhibit No.: \_\_\_\_\_  
Application: A.22-09-  
Witness: Sharim Chaudhury  
Chapter: 13

**PREPARED DIRECT TESTIMONY OF  
IFTEKHARUL (SHARIM) CHAUDHURY  
ON BEHALF OF SOUTHERN CALIFORNIA GAS COMPANY  
AND SAN DIEGO GAS & ELECTRIC COMPANY**

(RATE DESIGN)

September 30, 2022

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1 **CHAPTER 13**

2 **PREPARED DIRECT TESTIMONY OF SHARIM CHAUDHURY**

3 **(RATE DESIGN)**

4 **I. PURPOSE**

5 The purpose of my testimony is to present the illustrative 2024 natural gas transportation  
6 rates of Southern California Gas Company (SoCalGas) and San Diego Gas & Electric Company  
7 (SDG&E) (collectively, Applicants). These proposed rates reflect revisions to present rates  
8 based on Applicants' cost allocation proposals in this proceeding to allocate each utility's  
9 authorized base margin<sup>1</sup> across customer classes, as well as the demand forecast proposals in this  
10 proceeding to determine rates. Applicants' various cost allocation proposals, based on updated  
11 cost studies, are described by witnesses Manuel Rincon and Jimmy Yen (Chapter 1), Frank Seres  
12 (Chapter 8), Marjorie Schmidt-Pines (Chapter 9), and Michael Foster (Chapter 10). Applicants'  
13 demand forecast proposals are consolidated by witness Wei Bin Guo (Chapter 5). My testimony  
14 also incorporates the recommendations provided by witness N. Jonathan Peress (Chapter 14).  
15 Finally, to be consistent with the CPUC-adopted four-year general rate cycle (GRC), starting  
16 with this cost allocation proceeding, Applicants propose a four-year cost allocation proceeding  
17 (CAP) cycle.

18 **A. Overview of Rate Design**

19 Applicants' rate design models start with the proposed allocated base margin, and then  
20 incorporate the integration of the local transmission system costs for the two utilities,<sup>2</sup> along with

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<sup>1</sup> Base margin is authorized by the California Public Utilities Commission (Commission) in the General Rate Case (GRC) or equivalent cost of service proceedings.

<sup>2</sup> This integration reflects the splitting of total local transmission costs between the utilities by their respective percentage share of cold-year peak month throughput.

1 the unbundling of the Backbone Transportation Service (BTS) costs.<sup>3</sup> Additionally, Applicants’  
2 rate design models recover in rates all relevant Commission-authorized non-base margin costs  
3 during the cost allocation time horizon. These non-base margin costs include, but are not limited  
4 to, unaccounted-for gas (UAF),<sup>4</sup> company-use fuel, regulatory account balances (over-or-under  
5 collections), and any additional revenue requirements authorized by the Commission in  
6 proceedings outside the GRC.

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

8 Except as noted below, the methods employed to develop and allocate non-margin costs  
9 are consistent with those adopted in the 2020 Triennial Cost Allocation Proceeding (TCAP)  
10 decision, (D.) 20-02-045.

11 My testimony incorporates the following rate design and non-margin cost allocation  
12 proposals in this proceeding:

- 13 (1) Retain SoCalGas’s current \$5 per month residential non-CARE fixed  
14 customer charge in 2024, and then phase-in increases in customer charge  
15 (and commensurate decreases in volumetric rates) from \$5 to \$10 in 2025,  
16 \$10 to \$15 in 2026, \$15 to \$20 in 2027 (the corresponding proposed  
17 residential CARE fixed customer charges are \$4, \$5, \$7.50 and \$10 in  
18 2024, 2025, 2026 and 2027 respectively)<sup>5</sup>;

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<sup>3</sup> BTS costs represent the costs of SoCalGas’s and SDG&E’s backbone transmission service from the Southern California border receipt points to SoCalGas’s Citygate.

<sup>4</sup> As described by witness Wei Bin Guo (Chapter 5), UAF gas is the difference between total receipts into SoCalGas’s and SDG&E’s respective service territories and total deliveries within SoCalGas’s and SDG&E’s respective service territories over a specified period.

<sup>5</sup> Fixed customer charges are often discussed in this testimony as a monthly charge for convenience; in practice, fixed customer charges are billed as a per-meter per-day charge, which is derived from the monthly proxy. For example, a \$5 per month fixed customer charge is billed as \$0.16438 per-meter per-day (\$5 per month \* 12 months / 365 days).

- (2) Retain SDG&E's current residential non-CARE minimum bill of \$4 per customer per month in 2024 through 2027 (the corresponding residential CARE minimum bill would be \$3.20 per month);
- (3) Update SoCalGas's and SDG&E's respective residential submeter credits;
- (4) Update SoCalGas's and SDG&E's Natural Gas Vehicle (NGV) station compression costs;
- (5) Update SoCalGas's and SDG&E's Self Generation Incentive Program (SGIP) cost allocation across customer classes; and
- (6) Propose a method to allocate SoCalGas's Storage Load Balancing Plus Function costs, described by witness Frank Seres (Chapter 8), across customer classes.
- (7) Propose a four-year CAP cycle.

**C. Illustrative 2024 Rates**

The allocated non-margin costs are added to the allocated base margin costs to derive the allocated transportation revenue requirement by customer class. The allocated transportation revenue requirements by customer class become the starting point for the development of rates for each customer class.

To be consistent with the CPUC-adopted four-year general rate cycle, starting with this cost allocation proceeding, Applicants propose a four-year CAP cycle. As such, Applicants have used four-year average gas demand forecasts (2024 through 2027) for allocating costs across customer classes, as described in the testimonies of Marjorie Schmidt-Pines for SoCalGas (Chapter 9), and Michael Foster for SDG&E (Chapter 10). Likewise, for calculating rates proposed in this CAP, Applicants have used four-year average gas demand forecasts.

1 Table 1 and Table 2 below show, respectively, SoCalGas's and SDG&E's present class-  
2 average transportation rates (as of March 1, 2022), illustrative 2023 rates, and the 2024  
3 illustrative rates proposed in this proceeding.<sup>6</sup> The rate changes between the present 2022 and  
4 2024 proposed rates can best be explained as the sum of rate changes between the present and  
5 2023 rates and rate changes between the 2023 and proposed 2024 rates.

6 Present 2022 rates reflect the cost allocation results and gas demand forecasts adopted in  
7 Applicants' 2020 TCAP decision. The 2023 rates represent the Commission-ordered<sup>7</sup> updates to  
8 the 2020 TCAP cost allocation studies reflecting more recent historical costs since the 2020  
9 TCAP.<sup>8</sup> Applicants will implement the resulting updated rates on January 1, 2023. Proposed  
10 2024 rates reflect a new set of updated cost studies and gas demand forecasts proposed in this  
11 CAP. Except for the updated cost studies, the 2023 rates are based on the same demand  
12 forecasts, base margins and regulatory account balances as in present rates. As discussed by  
13 witnesses Rose-Marie Payan (Chapter 3), Jeff Huang (Chapter 4) and Wei Bin Guo (Chapter 5),  
14 the Applicants' gas demand forecast is generally declining for customer classes relative to the  
15 forecasts adopted in the 2020 TCAP. Applicants' 2024 proposed rates are derived using the  
16 present base margins and present regulatory account balances. Witness S. Nasim Ahmed

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<sup>6</sup> 2023 and 2024 rates are illustrative because, as of now, Applicants do not know their respective approved revenue requirements to be recovered in rates for these years. While Applicants know the 2023 base margins to be recovered in rates, they do not know the regulatory account balances at the end of 2022 to be amortized in 2023 rates. For 2024, Applicants do not know either the base margins or the regulatory account balances at the end of 2023 to be amortized in 2024 rates. Consistent with past practices, to isolate the impacts of demand forecast and cost allocation proposals, Applicants have held the respective base margins and regulatory account balances at the present 2022 levels. In this testimony, when I refer to 2023, 2024 and beyond rates, I mean illustrative rates.

<sup>7</sup> See D.21-07-019, Decision Addressing San Diego Gas & Electric Company and Southern California Gas Company Petition for Modification of Decision 20-02-045 at 16 (Ordering Paragraph (OP) 1).

<sup>8</sup> See SoCalGas Advice Letter No. 5907 for its updated cost allocation, *available at* <https://tariff.socalgas.com/regulatory/tariffs/tm2/pdf/5907.pdf>. See SDG&E Advice Letter No. 3042-G for its updated cost allocation, *available at* <https://tariff.sdge.com/tm2/pdf/3042-G.pdf>.

1 (Chapter 6) and witness Jason Kupfersmid (Chapter 7) discuss, respectively, the current  
 2 regulatory account balances in their testimony.

3 Table 1 below shows SoCalGas’s present class-average transportation rates (as of March  
 4 1, 2022), illustrative 2023 rates, and the 2024 illustrative rates proposed in this CAP.

5 **Table 1 – SoCalGas Natural Gas Transportation Rates (2022-2024)<sup>9</sup>**

	Present Rates			Expected Rates			Proposed Rates		
	Mar-1-22	Proposed	Mar-1-22	Jan-1-23	Proposed	Jan-1-23	Jan-1-24	Proposed	Jan-1-24
	Volumes Mth	Rate \$/therm	Revenues \$000's	Volumes Mth	Rate \$/therm	Revenues \$000's	Volumes Mth	Rate \$/therm	Revenues \$000's
1 <b>CORE</b>									
2 Residential	2,346,353	\$1.09046	\$2,558,598	2,346,353	\$1.02748	\$2,410,835	2,185,983	\$1.08349	\$2,368,480
3 Commercial & Industrial	992,706	\$0.63128	\$626,673	992,706	\$0.60845	\$604,009	880,320	\$0.68863	\$606,212
4 NGV - Post Sempra-Wide	178,769	\$0.35409	\$63,300	178,769	\$0.34973	\$62,521	167,083	\$0.44835	\$74,912
5 Gas A/C	416	\$0.27022	\$112	416	\$0.27037	\$113	140	\$0.43076	\$60
6 Gas Engine	22,302	\$0.25948	\$5,787	22,302	\$0.25950	\$5,787	19,830	\$0.26166	\$5,189
7 <b>Total Core</b>	<b>3,540,545</b>	<b>\$0.91920</b>	<b>\$3,254,471</b>	<b>3,540,545</b>	<b>\$0.87084</b>	<b>\$3,083,265</b>	<b>3,253,356</b>	<b>\$0.93899</b>	<b>\$3,054,854</b>
8									
9 <b>NONCORE COMMERCIAL &amp; INDUSTRIAL</b>									
10 Distribution Level Service	919,735	\$0.18162	\$167,045	919,735	\$0.18031	\$165,835	894,285	\$0.20065	\$179,440
11 Transmission Level Service	626,080	\$0.03353	\$20,994	626,080	\$0.03979	\$24,911	750,680	\$0.05298	\$39,768
12 <b>Total Noncore C&amp;I</b>	<b>1,545,814</b>	<b>\$0.12164</b>	<b>\$188,039</b>	<b>1,545,814</b>	<b>\$0.12340</b>	<b>\$190,746</b>	<b>1,644,965</b>	<b>\$0.13326</b>	<b>\$219,207</b>
13									
14 <b>NONCORE ELECTRIC GENERATION</b>									
15 Distribution Post Sempra Wide	331,442	\$0.15591	\$51,675	331,442	\$0.15697	\$52,026	335,280	\$0.18189	\$60,983
16 Transmission Level Service	2,246,336	\$0.03273	\$73,532	2,246,336	\$0.03899	\$87,587	1,800,969	\$0.05210	\$93,833
17 <b>Total Electric Generation</b>	<b>2,577,778</b>	<b>\$0.04857</b>	<b>\$125,206</b>	<b>2,577,778</b>	<b>\$0.05416</b>	<b>\$139,613</b>	<b>2,136,249</b>	<b>\$0.07247</b>	<b>\$154,816</b>
18	0			28%					
19 <b>TOTAL RETAIL NONCORE</b>	<b>4,123,593</b>	<b>\$0.07596</b>	<b>\$313,245</b>	<b>4,123,593</b>	<b>\$0.08011</b>	<b>\$330,359</b>	<b>3,781,214</b>	<b>\$0.09892</b>	<b>\$374,024</b>
20									
21 <b>Total Wholesale Incl SDG&amp;E</b>	<b>1,477,881</b>	<b>\$0.02916</b>	<b>\$43,099</b>	<b>1,477,881</b>	<b>\$0.03565</b>	<b>\$52,687</b>	<b>1,244,496</b>	<b>\$0.04731</b>	<b>\$58,878</b>
22									
23 <b>TOTAL NONCORE</b>	<b>5,601,473</b>	<b>\$0.06362</b>	<b>\$356,344</b>	<b>5,601,473</b>	<b>\$0.06838</b>	<b>\$383,047</b>	<b>5,025,711</b>	<b>\$0.08614</b>	<b>\$432,902</b>
24									
25 Unbundled Storage			\$0			\$0			\$0
26 System Total (w/o BTS)	9,142,019	\$0.39497	\$3,610,815	9,142,019	\$0.37916	\$3,466,311	8,279,067	\$0.42127	\$3,487,756
27 Backbone Transportation Service BTS	2,532	\$0.36798	\$340,120	2,532	\$0.53705	\$496,391	2,532	\$0.50099	\$463,062
28 <b>SYSTEM TOTAL w/BTS</b>	<b>9,142,019</b>	<b>\$0.43217</b>	<b>\$3,950,935</b>	<b>9,142,019</b>	<b>\$0.43346</b>	<b>\$3,962,703</b>	<b>8,279,067</b>	<b>\$0.47721</b>	<b>\$3,950,818</b>
29									
30 EOR Revenues	208,941	\$0.09427	\$19,696	208,941	\$0.09675	\$20,215	154,067	\$0.11172	\$17,212
31 <b>Total Throughput w/EOR Mth/yr</b>	<b>9,350,960</b>			<b>9,350,960</b>			<b>8,433,133</b>		

6

<sup>9</sup> Transportation rates are for Natural Gas Transportation Service from the Citygate to customer meters. All rates include Franchise Fees & Uncollectible charges. The average Transmission Level Service (TLS) rate is shown here. The unbundled Backbone Transportation Service (BTS) rate is for service from California border receipt points to Citygate.

	2022 to 2023 Changes			2023 to 2024 Changes			2022 to 2024 Changes			
	Revenues \$000's	Rates \$/therm	Rate change %	Revenues \$000's	Rates \$/therm	Rate change %	Revenues \$000's	Rates \$/therm	Rate change %	
1	<b>CORE</b>									
2	Residential	(\$147,763)	(\$0.06298)	-5.8%	(\$42,355)	\$0.05600	5.5%	(\$190,118)	(\$0.00697)	-0.6%
3	Commercial & Industrial	(\$22,665)	(\$0.02283)	-3.6%	\$2,204	\$0.08018	13.2%	(\$20,461)	\$0.05735	9.1%
4	NGV - Post Sempra-Wide	(\$779)	(\$0.00436)	-1.2%	\$12,391	\$0.09862	28.2%	\$11,611	\$0.09426	26.6%
5										
6	Gas A/C	\$0	\$0.00015	0.1%	(\$52)	\$0.16039	59.3%	(\$52)	\$0.16054	59.4%
7	Gas Engine	\$1	\$0.00002	0.0%	(\$599)	\$0.00215	0.8%	(\$598)	\$0.00218	0.8%
8	<b>Total Core</b>	<b>(\$171,206)</b>	<b>(\$0.04836)</b>	<b>-5.3%</b>	<b>(\$28,411)</b>	<b>\$0.06814</b>	<b>7.8%</b>	<b>(\$199,618)</b>	<b>\$0.01978</b>	<b>2.2%</b>
9	<b>NONCORE COMMERCIAL &amp; INDUSTRIAL</b>									
10	Distribution Level Service	(\$1,210)	(\$0.00132)	-0.7%	\$13,605	\$0.02034	11.3%	\$12,395	\$0.01903	10.5%
11	Transmission Level Service	\$3,917	\$0.00626	18.7%	\$14,856	\$0.01319	33.1%	\$18,774	\$0.01944	58.0%
12	<b>Total Noncore C&amp;I</b>	<b>\$2,708</b>	<b>\$0.00175</b>	<b>1.4%</b>	<b>\$28,461</b>	<b>\$0.00986</b>	<b>8.0%</b>	<b>\$31,169</b>	<b>\$0.01162</b>	<b>9.5%</b>
13	<b>NONCORE ELECTRIC GENERATION</b>									
14	Distribution Post Sempra Wide	\$352	\$0.00106	0.7%	\$8,957	\$0.02492	15.9%	\$9,309	\$0.02598	16.7%
15	Transmission Level Service	\$14,055	\$0.00626	19.1%	\$6,246	\$0.01311	33.6%	\$20,301	\$0.01937	59.2%
16	<b>Total Electric Generation</b>	<b>\$14,407</b>	<b>\$0.00559</b>	<b>11.5%</b>	<b>\$15,203</b>	<b>\$0.01831</b>	<b>33.8%</b>	<b>\$29,610</b>	<b>\$0.02390</b>	<b>49.2%</b>
17										
18										
19	<b>TOTAL RETAIL NONCORE</b>	<b>\$17,114</b>	<b>\$0.00415</b>	<b>5.5%</b>	<b>\$43,664</b>	<b>\$0.01880</b>	<b>23.5%</b>	<b>\$60,779</b>	<b>\$0.02295</b>	<b>30.2%</b>
20										
21	Total Wholesale Incl SDG&E	\$9,589	\$0.00649	22.2%	\$6,191	\$0.01166	32.7%	\$15,780	\$0.01815	62.2%
22										
23	<b>TOTAL NONCORE</b>	<b>\$26,703</b>	<b>\$0.00477</b>	<b>7.5%</b>	<b>\$49,856</b>	<b>\$0.01775</b>	<b>26.0%</b>	<b>\$76,559</b>	<b>\$0.02252</b>	<b>35.4%</b>
24										
25	Unbundled Storage									
26	System Total (w/o BTS)	(\$144,503)	(\$0.01581)	-4.0%	\$21,444	\$0.04211	11.1%	(\$123,059)	\$0.02630	6.7%
27	Backbone Transportation Service BTS	\$156,271	\$0.16907	45.9%	(\$33,329)	(\$0.03606)	-6.7%	\$122,942	\$0.13301	36.1%
28	<b>SYSTEM TOTAL w/BTS</b>	<b>\$11,768</b>	<b>\$0.00129</b>	<b>0.3%</b>	<b>(\$11,885)</b>	<b>\$0.04375</b>	<b>10.1%</b>	<b>(\$117)</b>	<b>\$0.04503</b>	<b>10.4%</b>
29										
30	EOR Revenues	\$519	\$0.00248	2.6%	(\$3,003)	\$0.01497	15.5%	(\$2,484)	\$0.01745	18.5%
31	Total Throughput w/EOR Mth/yr									

Table 1 (bottom section) shows that, relative to the present 2022 rates, SoCalGas's core customers' rates will generally decrease<sup>10</sup> and noncore customers' rates will generally increase in 2023.<sup>11</sup> With higher updated transmission and storage costs but the same revenue requirement to be recovered in rates, the 2023 rates reflect lower revenue recovered from customer-related and distribution functions. Relative to noncore customers, SoCalGas' core customers pay a significantly higher share of customer-related and distribution costs but a lower share of transmission and storage costs. For core customers, the effects of lower customer-related and distribution costs more than offset the effects of higher transmission and storage costs. Hence,

<sup>10</sup> Except for Gas AC and Gas Engine customers.

<sup>11</sup> Except for noncore commercial and industrial customers with distribution level service.



1 the decrease in SoCalGas's 2023 core rates. For noncore customers, the increase in transmission  
2 and storage costs more than offset the decrease in customer-related and distribution costs.

3 Therefore, noncore rates increase in 2023.

4 Table 1 also shows that, relative to 2023 rates, the proposed 2024 rates are higher for all  
5 customer classes, except for BTS tariff. These rate increases are primarily due to the lower gas  
6 demand forecasts for customer classes in this CAP relative to the last TCAP. Proposed local  
7 transmission and storage embedded costs are higher in 2024 compared to 2023. These higher  
8 embedded costs in 2024 partially mitigate core rate increases and add to noncore rate increases in  
9 2024.

10 The 2024 rate changes from the present 2022 rates reflect the combined rate changes  
11 from 2022 to 2023 and from 2023 to 2024. Table 1 shows that the proposals in this proceeding  
12 result in rate increases (relative to 2022 rates) for all of SoCalGas's customer classes except  
13 residential class. For SoCalGas's residential class, the rate reduction in 2023 (relative to 2022)  
14 more than offsets the rate increase in 2024 (relative to 2023). For SoCalGas's other core  
15 customer classes, the rate reduction in 2023 is more than offset by the rate increase in 2024. For  
16 noncore customers, rate increases between 2022 and 2024 is the result of rates increases both in  
17 2023 (relative to 2022) and in 2024 (relative to 2023).

18 Table 2 below shows SDG&E's present class-average transportation rates (as of March 1,  
19 2022), illustrative 2023 rates, and the 2024 illustrative rates proposed in this CAP.

1

Table 2 – SDG&E Natural Gas Transportation Rates (2022-2024)<sup>12</sup>

	Present Rates			Expected Rates			Proposed Rates		
	Mar-1-22 Volumes mtherms	Average Rate \$/therm	Mar-1-22 Revenues \$000's	Jan-1-23 Volumes mtherms	Average Rate \$/therm	Jan-1-23 Revenues \$000's	Jan-1-24 Volumes mtherms	Average Rate \$/therm	Jan-1-24 Revenues \$000's
<b>CORE</b>									
Residential	313,234	\$1.47125	\$460,846	313,234	\$1.44510	\$452,655	270,604	\$1.69468	\$458,588
Commercial & Industrial	194,777	\$0.61067	\$118,944	194,777	\$0.61090	\$118,990	178,913	\$0.63368	\$113,373
NGV Post Sempra-Wide	24,129	\$0.35496	\$8,565	24,129	\$0.35058	\$8,459	23,179	\$0.40248	\$9,329
<b>Total CORE</b>	<b>532,140</b>	<b>\$1.10564</b>	<b>\$588,355</b>	<b>532,140</b>	<b>\$1.09013</b>	<b>\$580,104</b>	<b>472,696</b>	<b>\$1.22973</b>	<b>\$581,290</b>
<b>NONCORE COMMERCIAL &amp; INDUSTRIAL</b>									
Distribution Level Service	29,376	\$0.16284	\$4,783	29,376	\$0.17509	\$5,143	35,337	\$0.19954	\$7,051
Transmission Level Service	17,569	\$0.03423	\$601	17,569	\$0.04049	\$711	13,965	\$0.05627	\$786
<b>Total Noncore C&amp;I</b>	<b>46,945</b>	<b>\$0.11471</b>	<b>\$5,385</b>	<b>46,945</b>	<b>\$0.12472</b>	<b>\$5,855</b>	<b>49,302</b>	<b>\$0.15896</b>	<b>\$7,837</b>
<b>NONCORE ELECTRIC GENERATION</b>									
Distribution Level post SW	68,867	\$0.17756	\$12,228	68,867	\$0.17808	\$12,264	71,656	\$0.20808	\$14,910
Transmission Level Service	461,363	\$0.02990	\$13,795	461,363	\$0.03616	\$16,681	225,945	\$0.04952	\$11,188
<b>Total Electric Generation</b>	<b>530,230</b>	<b>\$0.04908</b>	<b>\$26,023</b>	<b>530,230</b>	<b>\$0.05459</b>	<b>\$28,945</b>	<b>297,600</b>	<b>\$0.08769</b>	<b>\$26,098</b>
<b>TOTAL NONCORE</b>	<b>577,175</b>	<b>\$0.05442</b>	<b>\$31,408</b>	<b>577,175</b>	<b>\$0.06029</b>	<b>\$34,800</b>	<b>346,902</b>	<b>\$0.09782</b>	<b>\$33,935</b>
<b>SYSTEM TOTAL</b>	<b>1,109,315</b>	<b>\$0.55869</b>	<b>\$619,763</b>	<b>1,109,315</b>	<b>\$0.55431</b>	<b>\$614,904</b>	<b>819,598</b>	<b>\$0.75064</b>	<b>\$615,225</b>

2

	2022 to 2023 Changes			2023 to 2024 Changes			2022 to 2024 Changes		
	Revenues \$000's	Rates \$/therm	Rate change %	Revenues \$000's	Rates \$/therm	Rate change %	Revenues \$000's	Rates \$/therm	Rate change %
<b>CORE</b>									
Residential	(\$8,191)	(\$0.02615)	-1.8%	\$5,933	\$0.24958	17.3%	(\$2,258)	\$0.22343	15.2%
Commercial & Industrial	\$46	\$0.00024	0.0%	(\$5,617)	\$0.02277	3.7%	(\$5,571)	\$0.02301	3.8%
NGV Post Sempra-Wide	(\$106)	(\$0.00438)	-1.2%	\$870	\$0.05190	14.8%	\$764	\$0.04752	13.4%
<b>Total CORE</b>	<b>(\$8,251)</b>	<b>(\$0.01551)</b>	<b>-1.4%</b>	<b>\$1,186</b>	<b>\$0.13960</b>	<b>12.8%</b>	<b>(\$7,065)</b>	<b>\$0.12410</b>	<b>11.2%</b>
<b>NONCORE COMMERCIAL &amp; INDUSTRIAL</b>									
Distribution Level Service	\$360	\$0.01225	7.5%	\$1,908	\$0.02445	14.0%	\$2,268	\$0.03670	22.5%
Transmission Level Service	\$110	\$0.00626	18.3%	\$75	\$0.01579	39.0%	\$184	\$0.02204	64.4%
<b>Total Noncore C&amp;I</b>	<b>\$470</b>	<b>\$0.01001</b>	<b>8.7%</b>	<b>\$1,982</b>	<b>\$0.03424</b>	<b>27.5%</b>	<b>\$2,452</b>	<b>\$0.04425</b>	<b>38.6%</b>
<b>NONCORE ELECTRIC GENERATION</b>									
Distribution Level Service									
Transmission Level Service	\$2,887	\$0.00626	20.9%	(\$5,494)	\$0.01336	36.9%	(\$2,607)	\$0.01962	65.6%
<b>Total Electric Generation</b>	<b>\$2,922</b>	<b>\$0.00551</b>	<b>11.2%</b>	<b>(\$2,847)</b>	<b>\$0.03311</b>	<b>60.6%</b>	<b>\$75</b>	<b>\$0.03862</b>	<b>78.7%</b>
<b>TOTAL NONCORE</b>	<b>\$3,392</b>	<b>\$0.00588</b>	<b>10.8%</b>	<b>(\$865)</b>	<b>\$0.03753</b>	<b>62.2%</b>	<b>\$2,527</b>	<b>\$0.04341</b>	<b>79.8%</b>
<b>SYSTEM TOTAL</b>	<b>(\$4,859)</b>	<b>(\$0.00438)</b>	<b>-0.8%</b>	<b>\$322</b>	<b>\$0.19633</b>	<b>35.4%</b>	<b>(\$4,537)</b>	<b>\$0.19195</b>	<b>34.4%</b>

3

<sup>12</sup> Transportation rates are for Natural Gas Transportation Service from the Citygate to customer meters. All rates include Franchise Fees & Uncollectible charges. The average Transmission Level Service (TLS) rate is shown here.

1 Table 2 (bottom section) above shows that, relative to the present 2022 rates, SDG&E's  
2 core customers' rates will generally decrease,<sup>13</sup> and noncore customers' rates will increase in  
3 2023. With higher updated transmission costs but the same revenue requirement to recover in  
4 rates, the 2023 rates reflect lower revenue recovered from customer-related and distribution  
5 functions. Relative to noncore customers, SDG&E's core customers pay a significantly higher  
6 share of customer-related and distribution costs but a lower share of transmission costs. For core  
7 customers, the effects of lower customer-related and distribution costs more than offset the  
8 effects of higher transmission costs. Hence, the decrease in 2023 SDG&E residential and NGV  
9 rates. For noncore customers, the increase in transmission costs more than offset the decrease in  
10 customer-related and distribution costs. Therefore, noncore rates increase in 2023.

11 Table 2 also shows that, relative to 2023 rates, SDG&E's proposed 2024 rates are higher  
12 for all customer classes. These rate increases are primarily due the lower gas demand forecasts  
13 for customer classes in this CAP relative to the last TCAP.

14 SDG&E's 2024 rate changes from the present 2022 rates reflect the combined rate  
15 changes from 2022 to 2023 and from 2023 to 2024. Table 2 shows that the proposals in this  
16 proceeding result in rate increases (relative to 2022 rates) for all of SDG&E's customer classes.  
17 For SDG&E's residential and NGV customer classes, the rate reduction in 2023 is more than  
18 offset by the rate increase in 2024. For noncore customers, rate increases between 2022 and  
19 2024 reflect rates increases both in 2023 (relative to 2022) and 2024 (relative to 2023).

20 Appendix A and B contain, respectively, complete set of rate tables (showing current and  
21 2024 rates) for SoCalGas and SDG&E incorporating all the proposals in this CAP corresponding  
22 to Tables 1 and 2.

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<sup>13</sup> Except for core commercial and industrial customers.

As explained in Frank Seres’ testimony (Chapter 8), Applicants are proposing in this proceeding to escalate transmission and storage costs to account for attrition year base margin increases in those years. These attrition years are 2025, 2026 and 2027. Table 3 and Table 4 show the resulting 2025, 2026 and 2027 illustrative class-average transportation rates for SoCalGas and SDG&E, respectively. These 2025-2027 proposed class-average rates are derived using the present base margins and present regulatory account balances.

**Table 3 – SoCalGas Natural Gas Transportation Rates (2025-2027)<sup>14</sup>**

	Proposed Rates			Proposed Rates			Proposed Rates			
	Jan-1-25	Proposed	Jan-1-25	Jan-1-26	Proposed	Jan-1-26	Jan-1-27	Proposed	Jan-1-27	
	Volumes	Rate	Revenues	Volumes	Rate	Revenues	Volumes	Rate	Revenues	
	Mth	\$/therm	\$000's	Mth	\$/therm	\$000's	Mth	\$/therm	\$000's	
	D	E	F	D	E	F	D	E	F	
1	<b>CORE</b>									
2	Residential	2,185,983	\$1.08273	\$2,366,836	2,185,983	\$1.07914	\$2,358,975	2,185,983	\$1.07486	\$2,349,626
3	Commercial & Industrial	880,320	\$0.68830	\$605,922	880,320	\$0.68674	\$604,547	880,320	\$0.68488	\$602,912
7	NGV - Post Sempra-Wide	167,083	\$0.44835	\$74,911	167,083	\$0.44839	\$74,919	167,083	\$0.44845	\$74,929
8										
9	Gas A/C	140	\$0.43061	\$60	140	\$0.43004	\$60	140	\$0.42937	\$60
10	Gas Engine	19,830	\$0.26166	\$5,189	19,830	\$0.26166	\$5,189	19,830	\$0.26166	\$5,189
11	<b>Total Core</b>	<b>3,253,356</b>	<b>\$0.93839</b>	<b>\$3,052,919</b>	<b>3,253,356</b>	<b>\$0.93555</b>	<b>\$3,043,690</b>	<b>3,253,356</b>	<b>\$0.93218</b>	<b>\$3,032,717</b>
12										
13	<b>NONCORE COMMERCIAL &amp; INDUSTRIAL</b>									
14	Distribution Level Service	894,285	\$0.20068	\$179,467	894,285	\$0.20082	\$179,593	894,285	\$0.20099	\$179,744
15	Transmission Level Service	750,680	\$0.05311	\$39,872	750,680	\$0.05381	\$40,394	750,680	\$0.05464	\$41,017
16	<b>Total Noncore C&amp;I</b>	<b>1,644,965</b>	<b>\$0.13334</b>	<b>\$219,339</b>	<b>1,644,965</b>	<b>\$0.13373</b>	<b>\$219,988</b>	<b>1,644,965</b>	<b>\$0.13420</b>	<b>\$220,761</b>
17										
18	<b>NONCORE ELECTRIC GENERATION</b>									
23	Transmission Level Service	1,800,969	\$0.05224	\$94,083	1,800,969	\$0.05294	\$95,337	1,800,969	\$0.05377	\$96,832
24	<b>Total Electric Generation</b>	<b>2,136,249</b>	<b>\$0.07260</b>	<b>\$155,083</b>	<b>2,136,249</b>	<b>\$0.07322</b>	<b>\$156,420</b>	<b>2,136,249</b>	<b>\$0.07397</b>	<b>\$158,012</b>
25										
26	<b>TOTAL RETAIL NONCORE</b>	<b>3,781,214</b>	<b>\$0.09902</b>	<b>\$374,422</b>	<b>3,781,214</b>	<b>\$0.09955</b>	<b>\$376,407</b>	<b>3,781,214</b>	<b>\$0.10017</b>	<b>\$378,774</b>
35	<b>Total Wholesale Incl SDG&amp;E</b>	<b>1,244,496</b>	<b>\$0.04741</b>	<b>\$59,007</b>	<b>1,244,496</b>	<b>\$0.04814</b>	<b>\$59,908</b>	<b>1,244,496</b>	<b>\$0.04901</b>	<b>\$60,991</b>
36										
37	<b>TOTAL NONCORE</b>	<b>5,025,711</b>	<b>\$0.08624</b>	<b>\$433,429</b>	<b>5,025,711</b>	<b>\$0.08682</b>	<b>\$436,315</b>	<b>5,025,711</b>	<b>\$0.08750</b>	<b>\$439,764</b>
38										
39	Unbundled Storage		\$0			\$0			\$0	
40	System Total (w/o BTS)	8,279,067	\$0.42110	\$3,486,348	8,279,067	\$0.42034	\$3,480,005	8,279,067	\$0.41943	\$3,472,481
41	Backbone Transportation Service BTS	2,532	\$0.50268	\$464,621	2,532	\$0.51054	\$471,885	2,532	\$0.51988	\$480,524
42	<b>SYSTEM TOTAL w/BTS</b>	<b>8,279,067</b>	<b>\$0.47722</b>	<b>\$3,950,969</b>	<b>8,279,067</b>	<b>\$0.47734</b>	<b>\$3,951,890</b>	<b>8,279,067</b>	<b>\$0.47747</b>	<b>\$3,953,005</b>
43										
44	EOR Revenues	154,067	\$0.11179	\$17,223	154,067	\$0.11216	\$17,281	154,067	\$0.11261	\$17,349
45	<b>Total Throughput w/EOR Mth/yr</b>	<b>8,433,133</b>			<b>8,433,133</b>			<b>8,433,133</b>		

<sup>14</sup> Transportation rates are for Natural Gas Transportation Service from the Citygate to customer meters. All rates include Franchise Fees & Uncollectible charges. The average Transmission Level Service (TLS) rate is shown here. The unbundled Backbone Transportation Service (BTS) rate is for service from California border receipt points to Citygate.

1           Table 3 shows that, holding base margin constant, SoCalGas’s core rates will decrease  
2 slightly, and the noncore rates will increase slightly due to the proposed escalation of  
3 transmission and storage embedded costs to account for attrition year base margin increases in  
4 2025-2027. With higher updated transmission and storage costs but the same revenue  
5 requirement to be recovered in rates, the 2025, 2026 and 2027 rates (relative to respective prior  
6 year rates) reflect lower revenue recovered from customer-related and distribution functions. As  
7 stated earlier, relative to noncore customers, SoCalGas’s core customers pay a significantly  
8 higher share of customer-related and distribution costs but a lower share of transmission and  
9 storage costs. For core customers, the effects of lower customer-related and distribution costs  
10 more than offset the effects of higher transmission and storage costs. Hence, the decrease in core  
11 rates in these years. For noncore customers, the increase in transmission and storage costs more  
12 than offset the decrease in customer-related and distribution costs. Therefore, noncore rates  
13 increase in these years.

14           Table 4 shows the 2025, 2026 and 2027 illustrative class-average transportation rates for  
15 SDG&E resulting from escalation of transmission and storage costs for attrition year base margin  
16 increases.

1

**Table 4 – SDG&E Natural Gas Transportation Rates (2025-2027)<sup>15</sup>**

	At Proposed Rates			At Proposed Rates			At Proposed Rates		
	Jan-1-25	Average	Jan-1-25	Jan-1-26	Average	Jan-1-26	Jan-1-27	Average	Jan-1-27
	Volumes mtherms D	Rate \$/therm E	Revenues \$000's F	Volumes mtherms D	Rate \$/therm E	Revenues \$000's F	Volumes mtherms D	Rate \$/therm E	Revenues \$000's F
<b>CORE</b>									
Residential	270,604	\$1.69420	\$458,457	270,604	\$1.69201	\$457,863	270,604	\$1.68936	\$457,148
Commercial & Industrial	178,913	\$0.63374	\$113,385	178,913	\$0.63421	\$113,469	178,913	\$0.63477	\$113,568
NGV Post Semptra-Wide	23,179	\$0.40248	\$9,329	23,179	\$0.40252	\$9,330	23,179	\$0.40259	\$9,331
<b>Total CORE</b>	<b>472,696</b>	<b>\$1.22948</b>	<b>\$581,170</b>	<b>472,696</b>	<b>\$1.22840</b>	<b>\$580,662</b>	<b>472,696</b>	<b>\$1.22711</b>	<b>\$580,048</b>
<b>NONCORE COMMERCIAL &amp; INDUSTRIAL</b>									
Distribution Level Service	35,337	\$0.19974	\$7,058	35,337	\$0.20066	\$7,091	35,337	\$0.20175	\$7,129
Transmission Level Service	13,965	\$0.05641	\$788	13,965	\$0.05711	\$798	13,965	\$0.05794	\$809
<b>Total Noncore C&amp;I</b>	<b>49,302</b>	<b>\$0.15914</b>	<b>\$7,846</b>	<b>49,302</b>	<b>\$0.16000</b>	<b>\$7,888</b>	<b>49,302</b>	<b>\$0.16101</b>	<b>\$7,938</b>
<b>NONCORE ELECTRIC GENERATION</b>									
Distribution Level post SW	71,656	\$0.20813	\$14,913	71,656	\$0.20834	\$14,928	71,656	\$0.20859	\$14,946
Transmission Level Service	225,945	\$0.04965	\$11,219	225,945	\$0.05035	\$11,376	225,945	\$0.05118	\$11,564
<b>Total Electric Generation</b>	<b>297,600</b>	<b>\$0.08781</b>	<b>\$26,132</b>	<b>297,600</b>	<b>\$0.08839</b>	<b>\$26,305</b>	<b>297,600</b>	<b>\$0.08908</b>	<b>\$26,510</b>
<b>TOTAL NONCORE</b>	<b>346,902</b>	<b>\$0.09795</b>	<b>\$33,979</b>	<b>346,902</b>	<b>\$0.09857</b>	<b>\$34,193</b>	<b>346,902</b>	<b>\$0.09930</b>	<b>\$34,449</b>
<b>SYSTEM TOTAL</b>	<b>819,598</b>	<b>\$0.75055</b>	<b>\$615,149</b>	<b>819,598</b>	<b>\$0.75019</b>	<b>\$614,855</b>	<b>819,598</b>	<b>\$0.74975</b>	<b>\$614,497</b>

Table 4 shows that, holding base margin constant, SDG&E's core rates will decrease slightly, and the noncore rates will increase slightly due to the proposed escalation of transmission embedded costs to account for attrition year base margin increases in 2025-2027. With higher updated transmission costs but the same revenue requirement to be recovered in rates, the 2025, 2026 and 2027 rates (relative to respective prior year rates) reflect lower revenue recovered from customer-related and distribution functions. As stated earlier, relative to noncore customers, SDG&E's core customers pay a significantly higher share of customer-related and distribution costs but a lower share of transmission and storage costs. For core customers, the effects of lower customer-related and distribution costs more than offset the effects of higher transmission and storage costs. Hence, the decrease in core rates in these years. For noncore

<sup>15</sup> Transportation rates are for Natural Gas Transportation Service from the Citygate to customer meters. All rates include Franchise Fees & Uncollectible charges. The average Transmission Level Service (TLS) rate is shown here.

1 customers, the increase in transmission and storage costs more than offset the decrease in  
2 customer-related and distribution costs. Therefore, noncore rates increase in these years.

## 3 **II. CORE RATE DESIGN**

4 In this section, Applicants describe their respective individual core rate updates based on  
5 their respective CAP proposals. For residential customers, the rate updates include SoCalGas's  
6 proposed phase-in customer charge increases and the corresponding compensating decrease in  
7 volumetric rates. SDG&E proposes to retain the \$4 per month minimum bill for its residential  
8 customers.

### 9 **A. Residential Rates**

10 Residential rates apply to three categories of residential customers: single-family, multi-  
11 family, and small master-metered dwellings. SoCalGas's current residential transportation rate  
12 structure consists of a fixed customer charge of about \$5 per customer per month for customers  
13 who are not in the California Alternative Rates for Energy (CARE) program;<sup>16</sup> and a two-tiered  
14 volumetric rate, baseline and non-baseline, with the baseline rate lower than the non-baseline  
15 rate. The baseline rate and the non-baseline rates are related to each other through the concept of  
16 the Composite rate, where a Composite rate is defined by adding the gas price and the customer  
17 charge revenues per unit of baseline volume to the baseline rate. The non-baseline rate is  
18 derived as 115% of the Composite rate less the gas price.

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<sup>16</sup> The Commission adopted the current \$5 per month fixed customer charge for non-CARE customers in the 1993 BCAP (*see* D.94-12-052). In SoCalGas's tariff, the fixed customer charge is implemented as per-meter per-day charge (currently at \$0.16438). Hence, the monthly fixed customer charge varies slightly around \$5 from month to month depending on the number of days in a month. The current fixed customer charge for CARE customers is around \$4 per month, reflecting a 20% discount.

1 For SDG&E, the current residential rate structure consists of a two-tiered volumetric rate,  
2 baseline and non-baseline, with an approximately \$4 per customer per month<sup>17</sup> minimum bill.<sup>18</sup>

3 **1. SoCalGas Proposes to Phase-in an Increased Residential Fixed**  
4 **Customer Charge and Establish a Two-Tier Structure**

5 SoCalGas proposes to implement residential non-CARE fixed customer charge increases  
6 in a phased-in approach over the CAP horizon: retain the \$5 customer charge in 2024; increase it  
7 from \$5 to \$10 in 2025; from \$10 to \$15 in 2026; and from \$15 to \$20 in 2027.<sup>19</sup>

8 In the 2020 TCAP decision, the Commission did not adopt SoCalGas’s recommendation  
9 to increase its non-CARE fixed customer charge to \$10 per month.<sup>20</sup> In doing so, however, the  
10 Commission found that SoCalGas’s showing complied with the guidelines adopted in the D.17-  
11 09-035.<sup>21</sup> In D.17-09-035, the Commission made several key determinations which provided  
12 prescriptive guidance on how electric utilities should calculate and present fixed customer charge  
13 proposals. Notably, that guidance applies to establishing *new* fixed customer charges for *electric*  
14 utilities, while SoCalGas, a gas-only utility, already has a fixed customer charge. Nonetheless,  
15 in this application, SoCalGas’s fixed customer charge proposal adheres to the same guidelines,

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<sup>17</sup> The Commission adopted the \$4 per month minimum bill in the last TCAP (see D.20-20-045) for non-CARE customers. In SDG&E’s tariff, the minimum bill charge is implemented as per-meter per-day charge (currently at \$0.13151). Hence, the monthly minimum bill varies slightly around \$4 from month to month depending on the number of days in a month.

<sup>18</sup> For SDG&E, a non-CARE residential customer pays, at a minimum, a \$4 per-month gas bill. If the customer’s calculated gas bill based on the volume of gas used, comprising cost of gas, gas transportation cost and public purpose program surcharge (PPPS), exceeds \$4 per month, then the \$4 minimum bill no longer applies, and the customer pays the calculated bill. Under minimum bill, a customer pays either the \$4 or the calculated bill whichever is higher. For CARE customers, the minimum bill is around \$3.20 per month.

<sup>19</sup> As with SoCalGas’s current tariffs, this charge would be implemented as per-meter per-day charge.

<sup>20</sup> D.20-02-045 at 100 (Conclusions of Law (COL) 36).

<sup>21</sup> *Id.* at 94 (Findings of Fact (FOF) 82).



1 while enhancing the proposal to reflect concerns enumerated in the 2020 TCAP decision as well  
2 as advancements in ratemaking policy.

3 In the 2020 TCAP decision, the Commission gave two primary reasons for not  
4 authorizing SoCalGas to increase its residential fixed customer charge: (i) that the then-  
5 upcoming Gas Planning Rulemaking proceeding (R.20-01-007) would be the appropriate  
6 proceeding to address residential fixed customer charges and (ii) the affordability of bill impacts  
7 attributable to Applicants' fixed customer charge proposal was in question. I address these  
8 issues below.

9 In the 2020 TCAP decision, the Commission stated, "The long-term gas reliability  
10 rulemaking, as opposed to this TCAP application, is the appropriate venue to determine overall  
11 policies regarding rate design for recovering gas infrastructure costs, including whether to adopt  
12 fixed monthly charge."<sup>22</sup> While Track 1 of the Gas Planning rulemaking proceeding has  
13 completed recently, the cost allocation and rate design principles are to be addressed in Track  
14 2B. However, now over 2.5 years from the issuance of the Gas Planning rulemaking proceeding,  
15 Track 2B has not yet begun. Given the considerable delay in addressing cost allocation and rate  
16 design issues in the Gas Planning rulemaking, and the future uncertainty as to when the  
17 Commission might rule on these issues in the Gas Planning rulemaking, SoCalGas proposes to  
18 address the appropriate level of cost-based residential fixed customer charge in this proceeding.

19 A second reason articulated by the Commission behind rejecting the Applicants'  
20 residential fixed customer charge proposal in the last TCAP was that "The Applicants' request  
21 for a \$10 fixed monthly residential customer charge for SDG&E and SoCalGas customers does

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<sup>22</sup> *Id.* at 95 (FOF 89).

1 not meet the objective of affordability.”<sup>23</sup> SoCalGas has modified its residential fixed customer  
2 charge proposal in this proceeding to minimize gas bill increases for its low-income customers,  
3 as represented by CARE customers. To mitigate the bill impacts for CARE customers,  
4 SoCalGas proposes to establish a separate, lower fixed customer charge for CARE customers.  
5 Currently, CARE customers receive a 20% bill discount on gas charges, including a 20%  
6 discount on customer charges, volumetric transportation charges, and gas costs. In the last  
7 TCAP, Applicants did not propose to increase the CARE discount from the 20% level to mitigate  
8 bill increases for CARE customers with low gas usage. In this proceeding, SoCalGas proposes  
9 to establish a separate, lower CARE fixed customer charge which, when taking into account the  
10 20% CARE discount, will be effectively 50% below the non-CARE fixed customer charge.  
11 SoCalGas will maintain the currently effective 20% CARE discount on volumetric transportation  
12 charges and gas costs. While the 20% discount afforded to CARE customers will continue to be  
13 collected through Public Purpose Program Surcharge (PPPS) rates pursuant to other Commission  
14 decisions, the lower CARE fixed customer charge will be recovered through residential  
15 transportation rate design. That is to say, the baseline and non-baseline transportation rates will  
16 be set to fully recover SoCalGas’s authorized revenue requirement allocated to the residential  
17 class based on the two-tier fixed customer charge structure. Table 5 below summarizes  
18 SoCalGas’s residential fixed customer charge proposals.

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<sup>23</sup> *Id.* at 94 (FOF 83).

**Table 5: Current and Proposed Residential Fixed Customer Charge  
and Volumetric Rates**

	Non-CARE Fixed customer charge \$/month	CARE Fixed customer charge \$/month	Effective CARE Fixed customer charge After 20% CARE Discount \$/month	Baseline Rate \$/th	Non- Baseline Rate \$/th	Baseline Rate After 20% CARE Discount \$/th	Non- Baseline Rate After 20% CARE Discount \$/th
2024	\$5	\$5	\$4	\$0.79072	\$1.21648	\$0.63258	\$0.97319
2025	\$10	\$6.25	\$5	\$0.59544	\$1.21620	\$0.47635	\$0.97296
2026	\$15	\$9.375	\$7.50	\$0.37182	\$1.21293	\$0.29745	\$0.97034
2027	\$20	\$12.50	\$10	\$0.15290	\$1.20891	\$0.12232	\$0.96713

There is an additional impetus for the Commission to grant SoCalGas its proposed two-tier residential fixed customer charge structure. In June 2022, Assembly Bill (AB) 205 was passed into law. AB 205 addresses various residential rate reforms for California electric utilities. AB205 would: (i) require the CPUC to authorize a fixed customer charge for default residential rates no later than July 1, 2024; (ii) eliminate the \$10 and \$5 fixed customer charge caps; (iii) require the fixed customer charge to be established on at least a three income-graduated basis, ensuring low-income customers pay a smaller fixed customer charge; and (iv) allow the CARE discount to exceed 35%. These electric rate reform initiatives are conceptually transferable to gas utilities. The lower fixed customer charges for CARE customers relative to non-CARE customers, as proposed in my testimony, is essentially a two-tier income-graduated fixed customer charge, consistent with the policy direction of AB 205.

In prior cost allocation proceedings, parties have expressed concern that increases in residential fixed customer charges would dampen the conservation price signal. Parties warned that, if volumetric rates are reduced, then customers would be less incented to reduce their use of natural gas. Further, reduced volumetric rates could provide less of an incentive to invest in more Energy Efficient appliances.

1 As discussed previously, SoCalGas’s baseline and non-baseline rates are calculated using  
2 the Composite tier differential, where non-baseline rates are set at 115% of the Composite rate  
3 less gas price. Commission policy credits all fixed customer charge revenue to baseline rates in  
4 this equation – that is to say, as fixed customer charges increase, baseline rates decrease and non-  
5 baseline rates stay relatively the same. Table 5 above depicts this result. As SoCalGas proposes  
6 to increase the residential fixed customer charge in 2025, 2026, and 2027, the baseline rate  
7 declines with each change. On the contrary, the non-baseline rate is generally unchanged in each  
8 scenario. As a result, customers using more natural gas than their baseline allowances will see  
9 no change in the marginal price of gas as a result of a higher fixed customer charge, maintain the  
10 conservation price signal.<sup>24</sup>

11 Meeting California’s decarbonization goal is likely to lead to significant reduction in  
12 natural gas demand in the future, particularly for residential customers. To mitigate rates and bill  
13 impacts during this transition, it is imperative that the Commission address residential rate design  
14 issues, particularly the appropriate level of residential fixed charge. In the past, in considering  
15 whether to introduce/increase a residential fixed customer charge, the Commission had focused  
16 on immediate bill impacts. Transitions in the gas industry with forthcoming significant  
17 residential gas load and customer departure to electrification require that the Commission  
18 address the negative rates and bill impacts in the distant future of not introducing the appropriate  
19 level of fixed charge now.

20 To highlight the importance of setting the appropriate level of residential fixed charge  
21 now to mitigate the bill impacts for remaining low-income customers in the distant future (say, in

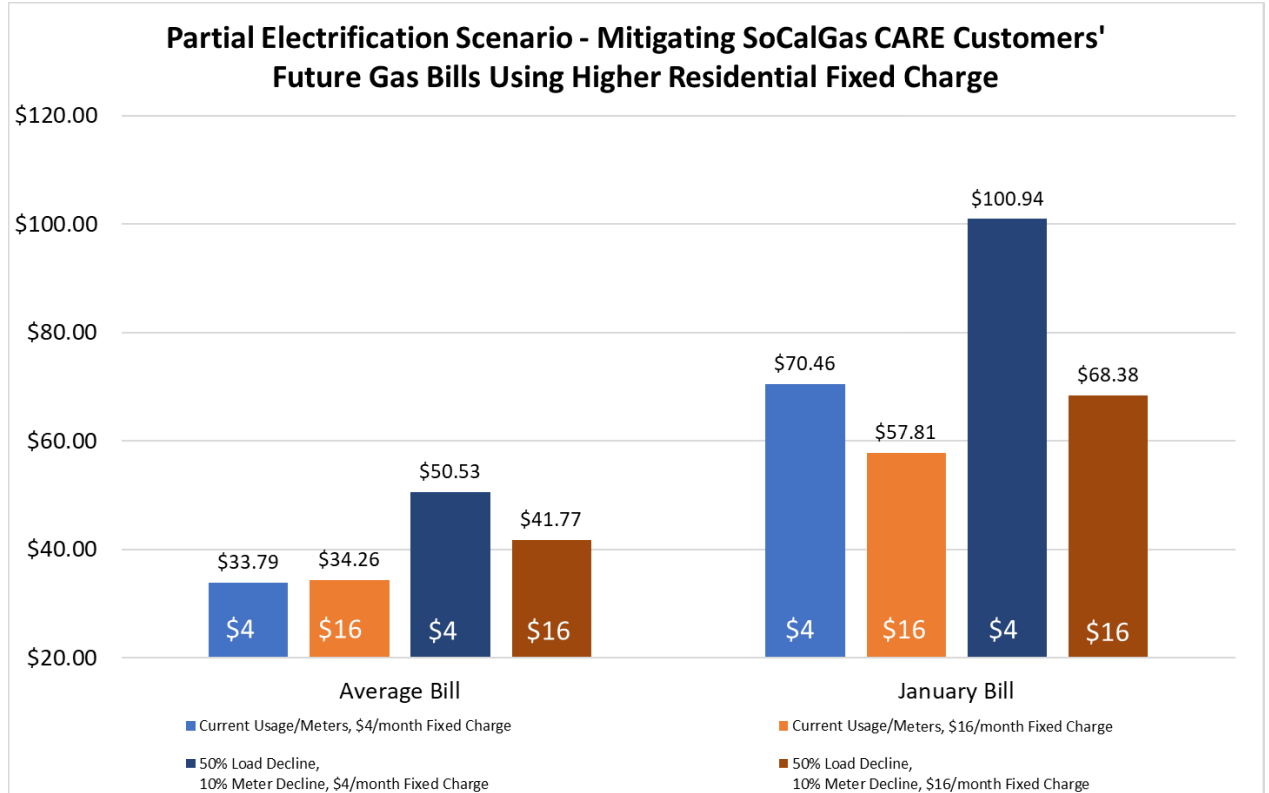
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<sup>24</sup> To the extent these customers’ net bills decrease for the same usage level, as a result of increased residential fixed customer charges, it would be because the baseline rate component of their bill would be decreasing.

1 | 2035), SoCalGas conducted a hypothetical analysis assuming a partial electrification scenario.  
2 | In this scenario, SoCalGas assumed that by 2035, SoCalGas would lose 50% of residential gas  
3 | load and 10% of residential customers to electrification. It may be reasonable to assume that  
4 | major gas appliances, such as, space and water heating would be replaced with electric versions;  
5 | however, the majority of current gas customers could retain gas service for lifestyle appliances,  
6 | such as, gas ranges and fireplaces. SoCalGas assumed that low-income CARE customers are  
7 | less likely to replace gas appliances with electric appliances due to budget constraints, making  
8 | CARE customers relatively high gas usage customers in 2035. SoCalGas also assumed that  
9 | SoCalGas's residential customers' share of revenue requirement would remain at the current  
10 | 2022 level. Under these assumptions, SoCalGas estimated the impacts of a \$4 and a \$16 per  
11 | month CARE fixed customer charge (representing a 20% CARE discount under the current  
12 | residential rate design method) on an average-usage residential CARE customer's bill now  
13 | (current usage and customer counts) and in 2035 (50% gas load and 10% customer count  
14 | reduction) as shown in Chart 1 below.

1

**Chart 1: Partial Electrification Scenario: CARE Bill Impacts Now And 2035**



2

3 Chart 1 shows that for an average-usage CARE customer, the introduction of higher fixed

4 customer charge of \$16 per month (and lower volumetric rates) would increase the average

5 monthly gas bill from \$33.79 to \$34.26 and decrease the January gas bill from \$70.46 to \$57.81.

6 In the distant future, due to declining load and customer counts, the monthly gas bill would be

7 higher under both the \$4 and the \$16 per month residential CARE fixed customer charges.

8 However, Chart 1 shows that in the distant future average monthly bill would be lower under the

9 \$16 per month fixed customer charge (\$41.77 per month versus \$50.53 per month under the \$4

10 fixed customer charge). In the distant future, the bill would be even lower under the \$16 per

11 month fixed customer charge in January (\$68.38 per month versus \$100.94 per month under the

12 \$4 fixed customer charge). In the distant future, with higher cost-based fixed customer charge,

13 low usage customers including presumably non-CARE customers with lifestyle gas appliances

1 with minimal gas usage, would pay their share of fixed costs, eliminating the cross subsidy from  
2 relatively high usage customers in the distant future including average-usage CARE customers.  
3 Average-Usage CARE customers, therefore, would benefit from cost-based higher customer  
4 charge.

## 5 **2. SDG&E Proposes to Retain Its Current Residential Minimum Bill**

6 In this proceeding, SDG&E proposes to retain the current \$4 per month residential  
7 minimum bill even though SDG&E continues to believe that cost-based residential fixed  
8 customer charge, rather than minimum bill, reflects superior rate design principle. Considering  
9 AB 205 discussed above, SDG&E will focus on the implementation of a residential fixed  
10 customer charge on its electric customers before implementing a residential fixed customer  
11 charge on its gas customers in a future proceeding.

## 12 **3. Alternative Methods to Calculate Marginal Customer Connection** 13 **Cost**

14 In Ordering Paragraph 8 of D.20-02-045 states, “San Diego Gas & Electric Company and  
15 Southern California Gas Company shall continue to provide customer cost allocation results in  
16 future Triennial Cost Allocation Proceeding applications using the Long Run Marginal Cost  
17 Method and the four approaches, as previously directed in Decision 17-09-035.”<sup>25</sup> The four  
18 approaches referenced above for calculating the capital component (gas service line, regulator  
19 and meter) of marginal customer-related costs are the (i) Rental method, (ii) new Customer Only  
20 (NCO) method; (iii) Adjusted Rental method 1 (ARM1) and (iv) Adjusted Rental method 2  
21 (ARM2). In the last TCAP decision, the Commission adopted the Rental method for allocating  
22 the capital component of customer-related costs.

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<sup>25</sup> D.20-02-045 at 104 (OP 8).

1           The Rental method calculates the capital component of marginal customer-related cost as  
 2 the incremental cost of hooking up an additional customer. The NCO method calculates the  
 3 same component as the total hookup costs for new customers divided by the total customers,  
 4 both existing and new. The ARM1 and ARM2 are the two alternative methods that the  
 5 Commission’s Energy Division proposed in PG&E’s GRC Phase 2 (A.16-06-013) by making  
 6 certain adjustments to the Rental method.<sup>26</sup> Applicants discussed extensively these four  
 7 approaches, identifying the shortcomings of the NCO and ARM1 and ARM2 methods in the last  
 8 TCAP. Appendix C contains excerpts from the last TCAP Chaudhury testimony (Chapter 12)  
 9 containing the discussion of the four approaches for calculating the capital component of  
 10 customer-related costs, which I adopt again as my testimony here.<sup>27</sup>

11           Applicants have applied the Commission direction to calculate and present marginal  
 12 customer-related costs that could be recovered in residential customer fixed charge under these  
 13 four approaches. Table 6 (for SoCalGas) and Table 7 (for SDG&E) show the estimated costs  
 14 derived under the four methods.<sup>28</sup>

<b>Table 6: SoCalGas’s Residential Minimum Connection Cost Per Month<sup>29</sup></b>				
	<b>Rental Method</b>	<b>NCO Method</b>	<b>Adjusted Rental Method 1</b>	<b>Adjusted Rental Method 2</b>
	\$22.69	\$19.68	\$13.73	\$20.68

<sup>26</sup> D.17-09-035 at 34-39, contains a discussion of these methods. Also, see the Energy Division Staff Proposal on Adjusted Rental Method for Marginal Customer Cost in PG&E GRC Phase 2 (A.16-06-013) Second Fixed Cost Workshop (November 2, 2016).

<sup>27</sup> See Chaudhury Testimony (Chapter 12) at 11-17 in the 2020 TCAP.

<sup>28</sup> The NCO method includes replacement costs of service lines, regulators and meters for 1.5% of existing service lines (both SoCalGas and SDG&E), 3.0% of SoCalGas’s meters and regulators, and 2.4% of SDG&E’s meters and regulators.

<sup>29</sup> Source: witness Schmidt-Pines’ (Chapter 9) workpapers.



<b>Table 7: SDG&amp;E's Residential Minimum Connection Cost Per Month<sup>30</sup></b>				
	<b>Rental Method</b>	<b>NCO Method</b>	<b>Adjusted Rental Method 1</b>	<b>Adjusted Rental Method 2</b>
	\$17.74	\$24.71	\$6.99	\$14.72

As shown in Table 6, even the minimum estimates of the range of estimated customer-related costs would support about \$14 per month fixed customer charges for SoCalGas. This Table shows that the Rental method would support a fixed residential customer charge as high as approximately \$23 for SoCalGas. As discussed earlier, SDG&E is not proposing a residential fixed customer charge in this CAP. SDG&E's residential minimum connection cost provided in Table 7 is for compliance with D.20-02-045 and not for seeking a residential fixed customer charge for SDG&E's gas customers.

#### **4. Residential Bill Impacts of SoCalGas's Proposals**

Table 8 below shows the 2024 through 2027 residential bills for non-CARE and CARE customers consistent with SoCalGas's proposals in this proceeding. Unlike prior cost allocation proceedings, SoCalGas is seeking Commission's approval for increasing residential customer charge and escalating embedded transmission and storage costs over the CAP horizon. As such, SoCalGas is showing residential bill impacts for all the years spanning this CAP.

**Table 8 – SoCalGas Average Residential Bills**

	<b>Average</b>	<b>Average Monthly Bills</b>				
		<b>2022</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
<b>SCG Residential Bill (Zone 1)</b>	<b>Therms/Month</b>					
non-CARE Monthly Average	36	\$56.08	\$55.54	\$55.55	\$54.89	\$54.35
CARE Monthly Average	27	\$32.15	\$31.75	\$32.16	\$32.05	\$32.03

Table 8 shows that for both SoCalGas CARE and non-Care customers average monthly bill will decrease slightly between 2022 and 2024, primarily due to a decrease in residential transportation rates in 2024 as shown in Table 1. Small bill changes in subsequent years (2025,

<sup>30</sup> Source: witness Foster's (Chapter 10) workpapers.

1 2026 and 2027) reflect the combined effects of escalating embedded transmission and storage  
2 costs and increases of the two-tier residential fixed customer charges over the CAP horizon.

### 3 **5. Bill Impacts of SoCalGas's Proposed Residential Customer Charge**

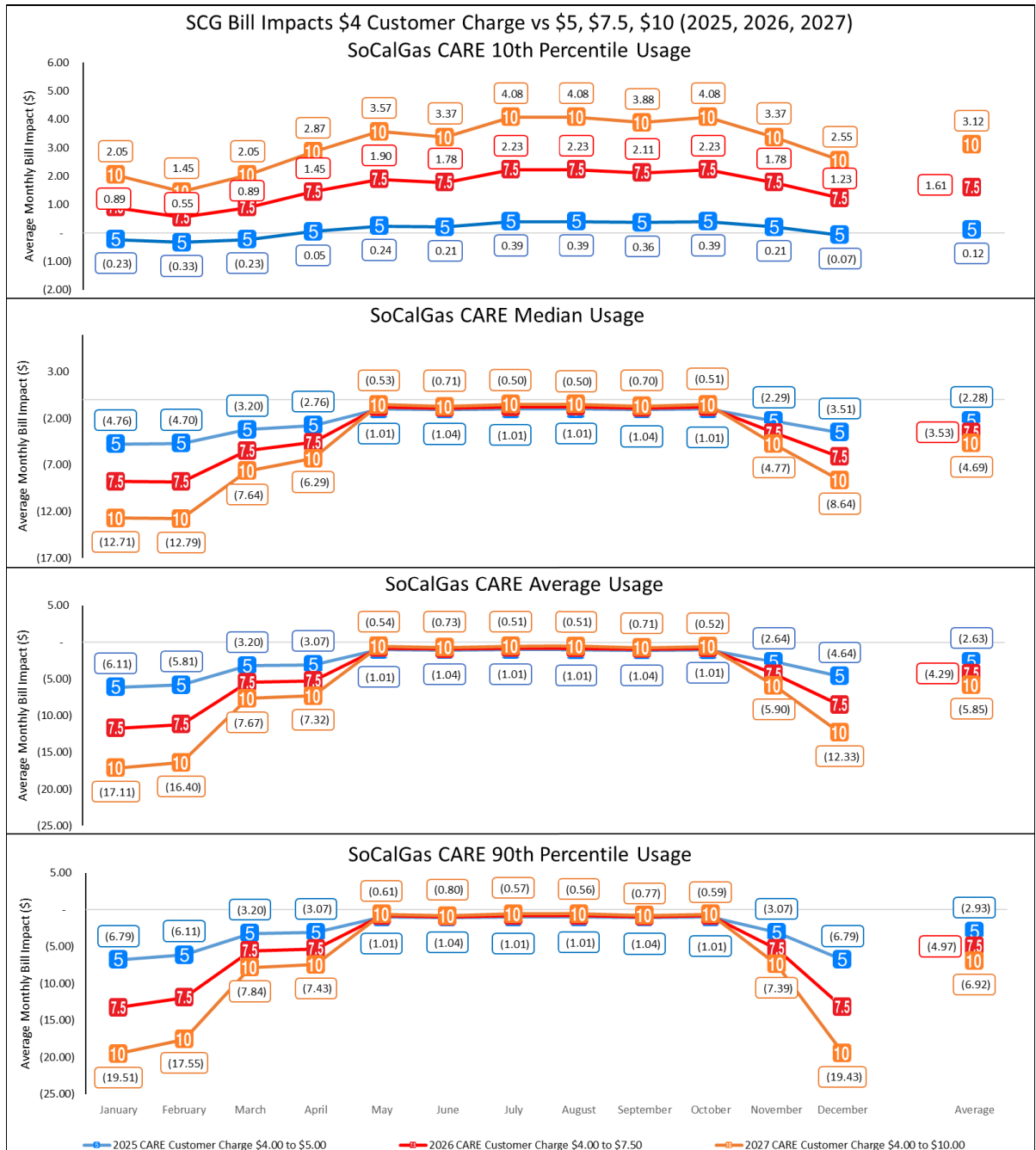
4 As discussed earlier, SoCalGas proposes to phase-in residential customer charge  
5 increases over this CAP horizon: retain the \$5 customer charge in 2024; increase it from \$5 to  
6 \$10 in 2025; from \$10 to \$15 in 2026 and from \$15 to \$20 in 2027. To evaluate the bill impacts  
7 of its fixed customer charge proposal, SoCalGas has focused on the gas bill of its CARE  
8 customers. Based on 2021 gas usage data for CARE customers, SoCalGas estimated monthly  
9 bills for CARE customers under four alternative gas usage scenarios: average, median, 10<sup>th</sup>  
10 percentile and 90<sup>th</sup> percentile usage.<sup>31</sup> SoCalGas chose the 10<sup>th</sup> percentile usage scenario to  
11 represent low usage customers and the 90<sup>th</sup> percentile usage scenario to represent high usage  
12 customers. For each usage scenario, there are three bill impacts lines (relative to \$4 per month  
13 CARE residential fixed customer charge in 2024) each representing proposed effective  
14 residential CARE fixed customer charge for 2025 (blue line representing \$5 per month), 2026  
15 (red line representing \$7.5 per month) and 2027 (red line representing \$10.0 per month). Chart 2  
16 below shows these monthly bill impacts for CARE customers.

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<sup>31</sup> 10<sup>th</sup> percentile usage means that 10% of the CARE customers' gas usage is at or below the 10<sup>th</sup> percentile usage level. 90<sup>th</sup> percentile usage means that 90% of the CARE customers' gas usage is at or below the 90<sup>th</sup> percentile usage level (10% of the CARE customers gas usage is above the 90<sup>th</sup> percentile usage level). As of December 2021, SoCalGas had 1,785,962 CARE customers.

1

### Chart 2: Illustrative SoCalGas Annual Bill Impacts



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Chart 2 shows bill impact for each month, as well as average monthly bill impact for SoCalGas’ CARE customers for the scenarios I described above. The bill impacts capture the difference in bills between SoCalGas’s proposed residential CARE fixed customer charges in

1 2025, 2026 and 2027 versus the status quo \$4 per month fixed customer charge. A positive  
2 monthly bill impact value reflects that the monthly bill will increase under the proposed fixed  
3 customer charge relative to the status quo \$4 per month CARE residential fixed customer charge.  
4 Similarly, a negative monthly bill impact value reflects that the monthly bill will decrease under  
5 the proposed fixed customer charge relative to the status quo \$4 per month fixed customer  
6 charge.

7 In response to the 2020 TCAP decision's finding regarding low-income customer  
8 affordability, as discussed earlier, in this proceeding, SoCalGas proposes to establish a separate,  
9 lower CARE fixed customer charge that, when taking into account the 20% CARE discount, will  
10 be effectively 50% below the non-CARE fixed customer charge. For low gas usage (10<sup>th</sup>  
11 percentile) CARE customers, Chart 2 shows that the 2025 monthly bills under the proposed \$5  
12 per month CARE fixed customer charge (\$10 for non-CARE customers) is expected to remain  
13 virtually the same as under the status quo \$4 per month CARE fixed customer charge (\$5 for  
14 non-CARE customers) due to the introduction of the two-tier fixed customer charge. The 2026  
15 average monthly bill under \$7.5 per month CARE fixed customer charge (\$15 for non-CARE  
16 customers) is expected to increase by \$1.61 per month. The 2027 average monthly bill under  
17 \$10 per month CARE fixed customer charge (\$20 for non-CARE customers) is expected to  
18 increase by \$3.12 per month.

19 For all median, mean and 90<sup>th</sup> percentile usage CARE customers, the bills are expected to  
20 be lower with higher CARE fixed customer charges of \$5, \$7.5 and \$10, for 2025, 2026 and  
21 2027, respectively, with the bill reduction being significant in winter months when the bills are  
22 high. It is important to note that these low-income customers with average or high gas usage  
23 would benefit from the Applicants' proposed two-tiered monthly customer charges.



1 proceeding before April 1, 2024, SoCalGas anticipates being able to complete the necessary  
2 billing upgrades before the CIS freeze. If the decision is issued after April 1, 2024, SoCalGas  
3 will need to adjust the implementation phase-in to account for any identified freeze period, and  
4 will likely incorporate the change in the new CIS solution, anticipated for 2026. Alternatively, if  
5 the Commission adopts modifications to the residential rate design that differ from those  
6 presented in my testimony, SoCalGas will need to analyze the impacts of the adopted solution to  
7 determine the appropriate implementation schedule. Either way, to be sure, SoCalGas will not  
8 implement an increased residential fixed customer charge without the corresponding ability to  
9 implement the two-tier structure.

10 **B. Submeter Credit**

11 Submeter credits apply to utility customers with a master meter who provide gas service  
12 to 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”--the costs that utilities avoid for which a master  
15 meter customer is reimbursed through the submeter credit provided by the utility.<sup>32</sup> In this  
16 proceeding, the Applicants’ proposed submeter credits are based on updated studies in  
17 compliance with the methodology set forth in D.04-04-043, and as was used most recently to  
18 update the submeter credits in the 2020 TCAP approved by D.20-02-045. Currently, SoCalGas’s  
19 submeter credit is set at \$0.28800 /meter/day and SoCalGas proposes to set it at

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<sup>32</sup> To the extent these costs do not exceed the average costs that a utility would have incurred in providing direct service to sub-unit customers.

1 \$0.33271/meter/day for 2024. With residential customer charge increasing in 2025, 2026 and  
2 2027, the submeter credits in these years will be \$0.16767, \$0.0 and \$0.0, respectively.<sup>33</sup>

3 SDG&E's submeter credits are currently set at \$0.58060/meter/day for multi-family (GS)  
4 customers and \$0.60099/meter/day for mobile home (GT) customers. SDG&E proposes to set  
5 them at \$0.82422/meter/day and \$0.85085/meter/day, respectively, for this CAP term.

### 6 **C. Core C&I Rates**

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

12 In D.20-02-045, the Commission retained the current rate structure for the different tiers  
13 within SoCalGas's G-10 rate design and SDG&E's GN-3 rate design. Neither SoCalGas nor  
14 SDG&E proposes any changes to the current methodology.

### 15 **D. Natural Gas Vehicle (NGV) Compression Rate Adder**

16 A compression surcharge or compression rate adder is intended to cover the cost of  
17 providing compressed natural gas (CNG) to motor vehicles fueling at public access CNG vehicle  
18 refueling stations owned and operated by Applicants. The compression rate adder is charged to  
19 customers on a volumetric basis. This adder is incremental to the uncompressed commodity  
20 charge and transportation charge. The compression rate adder reflects the capital and operating  
21 costs of compressing the natural gas and providing public access to CNG fuel for NGV owners.

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<sup>33</sup> Per the method for calculating submeter credit, SoCalGas's proposed increases in customer charge has the effect of lowering submeter credits in 2025, 2026 and 2027.

1 Additional state fuel tax, federal excise tax, and utility user taxes, which can vary by location, are  
2 also charged to customers. Currently, there is a Sempra California Utilities-wide<sup>34</sup> compression  
3 rate adder across both SoCalGas and SDG&E. Therefore, the compression rate adders for  
4 SoCalGas and SDG&E are nearly identical, with only a small difference due to differences in the  
5 Franchise Fees and Uncollectibles between the utilities.

6 In this CAP, Applicants have updated the NGV compression rate adders to reflect current  
7 costs. These costs are composed of a capital-related revenue requirement for public-access  
8 refueling equipment and a fully-loaded O&M-related revenue requirement. The Sempra  
9 California Utilities-wide NGV compression rate adder is derived by dividing the combined  
10 SoCalGas and SDG&E compression cost revenue requirements by the combined demand  
11 forecast for compressed NGV volumes.<sup>35</sup> The resulting NGV compression rate adders proposed  
12 for this TCAP term are \$0.91453 per therm and \$0.92010 per therm for SoCalGas and SDG&E,  
13 respectively.

### 14 **III. NONCORE RATE DESIGN**

#### 15 **A. Noncore Distribution Rates**

16 Applicants' current distribution-level services for noncore C&I and electric generation  
17 (EG) customers are provided under Schedule GT-NC for SoCalGas and Schedules GTNC and  
18 EG for SDG&E. The current noncore C&I rate design consists of a customer charge of \$350 per  
19 month for both the utilities, four tiers of declining block volumetric rates for SoCalGas and a  
20 single tier volumetric rate for SDG&E. For EG customers, there are Sempra California Utilities-

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<sup>34</sup> Sempra California Utilities-wide rate refers to the calculation of a single rate between SoCalGas and SDG&E for a customer class, before applying utility-specific adders, such as Franchise Fees and Uncollectibles.

<sup>35</sup> The compressed NGV volumes are presented by witness Rose-Marie Payan (Chapter 3).



1 wide rates; small EG customers pay a \$50 customer charge and a volumetric rate, and large EG  
2 customers pay a lower volumetric rate. Neither SoCalGas nor SDG&E proposes any changes to  
3 the current methodology.

4 **B. Transmission Level Service Rates**

5 Applicants' current Sempra California Utilities-wide rates for transmission-level service  
6 customers are provided under Schedule GT-TLS for SoCalGas and Schedule TLS for SDG&E.  
7 The current rate design consists of a class-average volumetric rate option and a reservation rate  
8 option for customers served from the transmission system. Neither SoCalGas nor SDG&E  
9 proposes any changes to the current methodology.

10 **IV. OTHER PROPOSALS**

11 **A. Updated Allocation of Self Generation Incentive Program (SGIP) Funds**  
12 **Based on Program Participation**

13 The last TCAP decision, in Ordering Paragraph 9, ordered Applicants to allocate SGIP  
14 costs using a hybrid method by allocating half of the SGIP costs to the host customer classes and  
15 the other half to the receiving customer classes. Tables 10 and 11 below show the current SGIP  
16 cost allocation percentages and the proposed updated SGIP cost allocation percentages based on  
17 the recent three years' program participation across customer classes for SoCalGas and SDG&E,  
18 respectively.

**Table 10: SoCalGas SGIP Cost Allocation**  
SoCalGas SGIP Cost Allocation

<b>Class</b>	<b>Recent 3 Year Total Incentives Paid</b>	<b>Proposed % Allocation</b>	<b>Current % Allocation</b>
Residential	\$ 9,973,556	37.1%	8.3%
Core C&I	\$ 11,530,507	42.9%	34.0%
NonCore EG	\$ 4,557,683	16.9%	40.0%
NonCore C&I	\$ 838,662	3.1%	17.7%
Other Core	\$0	0.0%	0.0%
<b>Total</b>	<b>\$26,900,409</b>	<b>100.0%</b>	<b>100.0%</b>

**Table 11: SDG&E SGIP Cost Allocation**

<b>SDG&amp;E Customer Class</b>	<b>Recent 3 Year Total Incentives Paid</b>	<b>Proposed % Allocation</b>	<b>Current % Allocation</b>
Residential	\$ 13,464,818	62%	12%
Core C&I	\$ 7,525,459	35%	68%
NonCore EG	\$ 563,386	3%	20%
<b>Grand Total</b>	<b>\$ 21,553,664</b>	<b>100%</b>	<b>100%</b>

**B. New Regulatory Accounts**

**1. Balancing Plus Services Memorandum Account (BPSMA)**

As discussed in Chapter 6 (Ahmed), SoCalGas is proposing to establish the Balancing Plus Services Memorandum Account (BPSMA). The purpose of the BPSMA is to record incremental revenues charged to customers for the Balancing Plus Service. SoCalGas proposes to allocate the BPSMA balance across customer classes based on each class's share of average year throughput (i.e., equal cents per therm), the same method currently used for allocating storage load balancing costs.

**2. San Joaquin Valley Disadvantaged Communities Balancing Account (SJV DACBA)**

Pursuant to Decision 18-12-015, SoCalGas submitted Advice Letter (AL) 5414 to establish the San Joaquin Valley Disadvantaged Communities Balancing Account (SJV DACBA)

1 to record costs associated with the SJVDAC's pilot projects. The SJVDACBA has two  
2 subaccounts: (i) To-The-Meter (TTM) subaccount to record the revenue requirement associated  
3 with all TTM costs for recovery in transportation rates; and (ii) Beyond-The-Meter (BTM)  
4 subaccount to record BTM non-leveraged costs for recovery in Public Purpose Program (PPP)  
5 surcharge rates. SoCalGas submitted AL 5414-A replacing AL 5414 in its entirety to propose to  
6 use the equal percent of authorized margin (EPAM)<sup>36</sup> methodology to amortize the  
7 SJVDACBA. California Public Advocates' Office protested the use of EPAM and suggested the  
8 use of equal cents per therm (ECPT)<sup>37</sup> method. Resolution E-5055 addressed the protest but  
9 decided that the issue of whether EPAM or ECPT method is the appropriate cost allocation  
10 method for recovering SJVDAC pilot costs should be addressed in SoCalGas' next cost  
11 allocation proceeding. In this proceeding, SoCalGas is proposing to use the ECPT method to  
12 amortize the balance in SJVDACBA.

13 This concludes my prepared direct testimony.

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<sup>36</sup> Under EPAM method, each customer class pays its share of authorized margin.

<sup>37</sup> Under ECPT method, each customer class pays its share of average-year gas usage.

1 **V. QUALIFICATIONS**

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

6 I hold a Bachelor of Arts degree in Economics from Illinois State University. I received  
7 my Masters and Ph.D. degrees in Economics from the University of California, San Diego.

8 I have held my current position managing the rates group since August 2014 and have  
9 been managing the demand forecasting group since April 2013. Prior to joining SoCalGas, I  
10 worked at Southern California Edison Company from June 1999 to March 2013, holding several  
11 positions of increasing responsibility, from Senior Analyst to Manager of Price Forecasting to  
12 Manager of Long-Term Demand Forecasting. From October 1998 to May 1999, I worked at the  
13 National Economic Research Associates (NERA) as a Senior Consultant. Prior to joining  
14 NERA, I worked at SoCalGas from 1991 to 1998, holding several positions of increasing  
15 responsibility, starting as Marketing Analyst to Senior Economist in the Rate Design group to  
16 Manager of Rate Design. I also worked for about a year at the California Energy Commission in  
17 the Demand Analysis Office.

18 I have previously testified before this Commission.

# APPENDIX A

**TABLE 1**  
**Natural Gas Transportation Rates**  
**Southern California Gas Company**  
**January, 2024 Rates**  
09/20/22  
TCAP 1/1/2024

	Present Rates			Proposed Rates			Changes		
	Mar-1-22	Proposed	Mar-1-22	Jan-1-24	Proposed	Jan-1-24	Revenue	Rate	% Rate
	Volumes Mth A	Rate \$/therm B	Revenues \$000's C	Volumes Mth D	Rate \$/therm E	Revenues \$000's F	Change \$000's G	Change \$/therm H	change % I
1 <b>CORE</b>									
2 Residential	2,346,353	\$1.09046	\$2,558,598	2,185,983	\$1.08349	\$2,368,480	(\$190,118)	(\$0.00697)	-0.6%
3 Commercial & Industrial	992,706	\$0.63128	\$626,673	880,320	\$0.68863	\$606,212	(\$20,461)	\$0.05735	9.1%
4									
5 NGV - Pre Sempra-Wide	178,769	\$0.36605	\$65,438	167,083	\$0.46308	\$77,373	\$11,935	\$0.09703	26.5%
6 Sempra-Wide Adjustment	178,769	(\$0.01196)	(\$2,138)	167,083	(\$0.01473)	(\$2,461)	(\$324)	(\$0.00277)	23.2%
7 NGV - Post Sempra-Wide	178,769	\$0.35409	\$63,300	167,083	\$0.44835	\$74,912	\$11,611	\$0.09426	26.6%
8									
9 Gas A/C	416	\$0.27022	\$112	140	\$0.43076	\$60	(\$52)	\$0.16054	59.4%
10 Gas Engine	22,302	\$0.25948	\$5,787	19,830	\$0.26166	\$5,189	(\$598)	\$0.00218	0.8%
11 <b>Total Core</b>	<b>3,540,545</b>	<b>\$0.91920</b>	<b>\$3,254,471</b>	<b>3,253,356</b>	<b>\$0.93899</b>	<b>\$3,054,854</b>	<b>(\$199,618)</b>	<b>\$0.01978</b>	<b>2.2%</b>
12									
13 <b>NONCORE COMMERCIAL &amp; INDUSTRIAL</b>									
14 Distribution Level Service	919,735	\$0.18162	\$167,045	894,285	\$0.20065	\$179,440	\$12,395	\$0.01903	10.5%
15 Transmission Level Service (2)	626,080	\$0.03353	\$20,994	750,680	\$0.05298	\$39,768	\$18,774	\$0.01944	58.0%
16 <b>Total Noncore C&amp;I</b>	<b>1,545,814</b>	<b>\$0.12164</b>	<b>\$188,039</b>	<b>1,644,965</b>	<b>\$0.13326</b>	<b>\$219,207</b>	<b>\$31,169</b>	<b>\$0.01162</b>	<b>9.5%</b>
17									
18 <b>NONCORE ELECTRIC GENERATION</b>									
19 Distribution Level Service									
20 Pre Sempra-Wide	331,442	\$0.16782	\$55,623	335,280	\$0.19376	\$64,965	\$9,342	\$0.02594	15.5%
21 Sempra-Wide Adjustment	331,442	(\$0.01191)	(\$3,949)	335,280	(\$0.01188)	(\$3,982)	(\$33)	\$0.00004	-0.3%
22 Distribution Post Sempra Wide	331,442	\$0.15591	\$51,675	335,280	\$0.18189	\$60,983	\$9,309	\$0.02598	16.7%
23 Transmission Level Service (2)	2,246,336	\$0.03273	\$73,532	1,800,969	\$0.05210	\$93,833	\$20,301	\$0.01937	59.2%
24 <b>Total Electric Generation</b>	<b>2,577,778</b>	<b>\$0.04857</b>	<b>\$125,206</b>	<b>2,136,249</b>	<b>\$0.07247</b>	<b>\$154,816</b>	<b>\$29,610</b>	<b>\$0.02390</b>	<b>49.2%</b>
25	0								
26 <b>TOTAL RETAIL NONCORE</b>	<b>4,123,593</b>	<b>\$0.07596</b>	<b>\$313,245</b>	<b>3,781,214</b>	<b>\$0.09892</b>	<b>\$374,024</b>	<b>\$60,779</b>	<b>\$0.02295</b>	<b>30.2%</b>
27									
28 <b>WHOLESALE</b>									
29 Wholesale Long Beach (2)	79,646	\$0.02859	\$2,277	91,703	\$0.04931	\$4,522	\$2,244	\$0.02071	72.4%
30 Wholesale SWG (2)	66,431	\$0.02859	\$1,900	74,685	\$0.04931	\$3,683	\$1,783	\$0.02071	72.4%
31 Wholesale Vernon (2)	96,890	\$0.02859	\$2,771	97,040	\$0.04931	\$4,785	\$2,014	\$0.02071	72.4%
32 International (2)	116,299	\$0.02859	\$3,326	139,490	\$0.04931	\$6,878	\$3,553	\$0.02071	72.4%
33 Total Wholesale & International	359,267	\$0.02859	\$10,273	402,918	\$0.04931	\$19,867	\$9,594	\$0.02071	72.4%
34 SDG&E Wholesale	1,118,614	\$0.02934	\$32,826	841,578	\$0.04635	\$39,011	\$6,186	\$0.01701	58.0%
35 <b>Total Wholesale Incl SDG&amp;E</b>	<b>1,477,881</b>	<b>\$0.02916</b>	<b>\$43,099</b>	<b>1,244,496</b>	<b>\$0.04731</b>	<b>\$58,878</b>	<b>\$15,780</b>	<b>\$0.01815</b>	<b>62.2%</b>
36									
37 <b>TOTAL NONCORE</b>	<b>5,601,473</b>	<b>\$0.06362</b>	<b>\$356,344</b>	<b>5,025,711</b>	<b>\$0.08614</b>	<b>\$432,902</b>	<b>\$76,559</b>	<b>\$0.02252</b>	<b>35.4%</b>
38									
39 Unbundled Storage (4)		\$0			\$0		\$0		
40 System Total (w/o BTS)	9,142,019	\$0.39497	\$3,610,815	8,279,067	\$0.42127	\$3,487,756	(\$123,059)	\$0.02630	6.7%
41 Backbone Transportation Service BTS (3)	2,532	\$0.36798	\$340,120	2,532	\$0.50099	\$463,062	\$122,942	\$0.13301	36.1%
42 <b>SYSTEM TOTAL w/BTS</b>	<b>9,142,019</b>	<b>\$0.43217</b>	<b>\$3,950,935</b>	<b>8,279,067</b>	<b>\$0.47721</b>	<b>\$3,950,818</b>	<b>(\$117)</b>	<b>\$0.04503</b>	<b>10.4%</b>
43									
44 EOR Revenues	208,941	\$0.09427	\$19,696	154,067	\$0.11172	\$17,212	(\$2,484)	\$0.01745	18.5%
45 <b>Total Throughput w/EOR Mth/yr</b>	<b>9,350,960</b>			<b>8,433,133</b>					

- 1) These rates are for Natural Gas Transportation Service from "Citygate to Meter." The Backbone Transportation Service (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 for detailed 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. Charge is for both core and noncore customers
- 4) Unbundled Storage costs are not part of the Core Storage or Load Balancing functions (those are included in transport rates).
- 5) All rates include Franchise Fees & Uncollectible charges.

**TABLE 2**  
**Residential Transportation Rates**  
**Southern California Gas Company**

09/20/22  
 TCAP 1/1/2024

	Present Rates			Proposed Rates			Changes			
	Mar-1-22	Average	Mar-1-22	Jan-1-24	Jan-1-24	Jan-1-24	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										
4	3,808,652	\$5.00	\$228,519	3,905,273	\$5.00	\$234,316	\$5,797	\$0.00000	0.0%	
5	1,784,011	\$5.00	\$107,041	1,825,058	\$5.00	\$109,503	\$2,463	\$0.00000	0.0%	
6	121,819	\$5.00	\$7,309	123,305	\$5.00	\$7,398	\$89	\$0.00000	0.0%	
7	141,547	(\$0.28800)	(\$14,879)	128,003	(\$0.33271)	(\$15,545)	(\$665)	(\$0.04471)	15.5%	
8	<b>Volumetric Transportation Rate Exclude CSITMA and CAT:</b>									
9	1,619,181	\$0.71401	\$1,156,106	1,458,094	\$0.67155	\$979,190	(\$176,917)	(\$0.04245)	-5.9%	
10	718,079	\$1.12791	\$809,927	719,874	\$1.09732	\$789,929	(\$19,998)	(\$0.03059)	-2.7%	
11	2,337,260	\$0.98150	\$2,294,023	2,177,968	\$0.96640	\$2,104,792	(\$189,231)	(\$0.01510)	-1.5%	
12	NBL/BL Ratio:									
13	Composite Rate \$/th		\$1.40891	Composite Rate \$/th		\$1.30365			(\$0.10526)	-7.5%
14	Gas Rate \$/th		\$0.49233	Gas Rate \$/th		\$0.40188			(\$0.09045)	-18.4%
15	NBL/Composite rate ratio (4) =		1.150000000	NBL/Composite rate ratio (4) =		1.150000000				
16	NBL- BL rate difference \$/th		0.41390	NBL- BL rate difference \$/th		0.42576			\$0.01186	2.9%
17	Large Master Meter Rate (Excludes Rate Adders for CAT):									
18	49	\$547.28	\$325	53	\$547.28	\$345	\$20	\$0.00	0.0%	
19	7,787	\$0.44153	\$3,438	5,868	\$0.32757	\$1,922	(\$1,516)	(\$0.11396)	-25.8%	
20	1,306	\$0.69748	\$911	2,147	\$0.53524	\$1,149	\$239	(\$0.16223)	-23.3%	
21	9,093	\$0.51397	\$4,673	8,015	\$0.42623	\$3,416	(\$1,257)	(\$0.08773)	-17.1%	
22										
23	<b>Residential Rates Include CSITMA, CARB and GHG Excludes CAT:</b>									
24	1,686,545	\$0.00032	\$540	1,507,908	\$0.00034	\$506	(\$33)	\$0.00002	4.9%	
25	2,346,353	\$0.00143	\$3,363	2,185,983	\$0.00160	\$3,499	\$136			
26	2,346,353	\$0.10911	\$255,999	2,185,983	\$0.11723	\$256,267	\$267			
27	<b>Residential:</b>									
28	Customer Charge		\$5.00	Customer Charge		\$5.00			\$0.00000	0.0%
29	BaseLine \$/therm		\$0.82487	BaseLine \$/therm		\$0.79072			(\$0.03414)	-4.1%
30	Non-BaseLine \$/therm		\$1.23877	Non-BaseLine \$/therm		\$1.21648			(\$0.02228)	-1.8%
31	Average NonCARE Rate \$/therm		\$1.09236	Average NonCARE Rate \$/therm		\$1.08557			(\$0.00679)	-0.6%
32	<b>Large Master Meter:</b>									
33	Customer Charge		\$547.28	Customer Charge		\$547.28			\$0.00	0.0%
34	BaseLine Rate		\$0.55239	BaseLine Rate		\$0.44674			(\$0.10565)	-19.1%
35	Non-BaseLine Rate		\$0.80834	Non-BaseLine Rate		\$0.65441			(\$0.15392)	-19.0%
36	Average NonCARE Rate \$/therm		\$0.62483	Average NonCARE Rate \$/therm		\$0.54540			(\$0.07943)	-12.7%
37	<b>Residential Rates Include CSITMA &amp; CAT:</b>									
38	27,389	\$0.00000	\$0	23,460	\$0.00000	\$0	\$0	\$0.00000		
39	<b>Residential:</b>									
40	Customer Charge		\$5.00	Customer Charge		\$5.00			\$0.00000	0.0%
41	BaseLine Rate		\$0.82487	BaseLine Rate		\$0.79072			(\$0.03414)	-4.1%
42	Non-BaseLine Rate		\$1.23877	Non-BaseLine Rate		\$1.21648			(\$0.02228)	-1.8%
43	<b>Large Master Meter:</b>									
44	Customer Charge		\$547.28	Customer Charge		\$547.28			\$0.00000	0.0%
45	BaseLine Rate		\$0.55239	BaseLine Rate		\$0.44674			(\$0.10565)	-19.1%
46	Non-BaseLine Rate		\$0.80834	Non-BaseLine Rate		\$0.65441			(\$0.15392)	-19.0%
47	<b>Other Adjustments:</b>									
48	TCA for CSITMA exempt customers		(\$0.00032)	TCA for CSITMA exempt customers		(\$0.00034)			(\$0.00002)	4.9%
49	California Climate Credit - April Bill		(\$44.17)	California Climate Credit - April Bill		(\$44.17)				
50	<b>TOTAL RESIDENTIAL</b>	<b>2,346,353</b>	<b>\$1,09046</b>	<b>\$2,558,598</b>	<b>2,185,983</b>	<b>\$1,08349</b>	<b>\$2,368,480</b>	<b>(\$190,118)</b>	<b>(\$0.00697)</b>	<b>-0.6%</b>

See footnotes, Table 1.

**TABLE 3**  
**Core Nonresidential Transportation Rates**  
**Southern California Gas Company**  
09/20/22  
TCAP 1/1/2024

	Present Rates			Proposed Rates			Changes			
	Mar-1-22 Volumes	Average Rate	Mar-1-22 Revenue	Jan-1-24 Volumes	Rate	Jan-1-24 Revenue	Revenue Change	Rate Change	% Rate change	
	Mth A	\$/th B	\$000's C	Mth D	\$/th E	\$000's F	\$000's G	\$/th H	% I	
1										
2	<b>CORE COMMERCIAL &amp; INDUSTRIAL</b>									
3	Customer Charge 1	141,378	\$15.00	\$25,448	141,954	\$15.00	\$25,552	\$104	\$0.00	0.0%
4	Customer Charge 2	62,136	\$15.00	\$11,185	61,060	\$15.00	\$10,991	(\$194)	\$0.00	0.0%
5	<b>Volumetric Transportation Rate Exclude CSITMA &amp; CAT:</b>									
6	Tier 1 = 250th/mo	202,399	\$0.95104	\$192,490	182,276	\$1.04068	\$189,690	(\$2,799)	\$0.08964	9.4%
7	Tier 2 = next 4167 th/mo	449,431	\$0.49692	\$223,331	386,664	\$0.54449	\$210,535	(\$12,796)	\$0.04757	9.6%
8	Tier 3 = over 4167 th/mo	340,876	\$0.19243	\$65,595	311,380	\$0.21180	\$65,950	\$355	\$0.01937	10.1%
9		992,706	\$0.52186	\$518,049	880,320	\$0.57106	\$502,718	(\$15,331)	\$0.04921	9.4%
10										
11	<b>Volumetric Transportation Rate Include CSITMA &amp; GHG, Exclude CAT:</b>									
12	CSITMA Adder to Volumetric Rate	984,422	\$0.00032	\$315	871,854	\$0.00034	\$293	(\$22)	\$0.00002	4.9%
13	GHG Adder to Volumetric Rate	992,706	\$0.10911	\$108,309	880,320	\$0.11723	\$103,201			
14	Tier 1 = 250th/mo		\$1.06047			\$1.15825			\$0.09778	9.2%
15	Tier 2 = next 4167 th/mo		\$0.60634			\$0.66206			\$0.05571	9.2%
16	Tier 3 = over 4167 th/mo		\$0.30186			\$0.32937			\$0.02751	9.1%
17			\$0.63128			\$0.68863			\$0.05735	
18									\$0.00000	
19	<b>Volumetric Transportation Rate Include CSITMA &amp; CAT:</b>									
20	CAT Adder to Volumetric Rate	139,308	\$0.00000	\$0	98,391	\$0.00000	\$0	\$0	\$0.00000	
21	Tier 1 = 250th/mo		\$1.06047			\$1.15825			\$0.09778	9.2%
22	Tier 2 = next 4167 th/mo		\$0.60634			\$0.66206			\$0.05571	9.2%
23	Tier 3 = over 4167 th/mo		\$0.30186			\$0.32937			\$0.02751	9.1%
24			\$0.63128			\$0.68863			\$0.05735	9.1%
25	<b>Other Adjustments:</b>									
26	TCA for CSITMA exempt customers		(\$0.00032)			(\$0.00034)			(\$0.00002)	4.9%
27	GHG Fee Credit \$/th		(\$0.10911)			(\$0.11723)				
28	<b>TOTAL CORE C&amp;I</b>	<b>992,706</b>	<b>\$0.63128</b>	<b>\$626,673</b>	<b>880,320</b>	<b>\$0.68863</b>	<b>\$606,212</b>	<b>(\$20,461)</b>	<b>\$0.05735</b>	<b>9.1%</b>
29										
30	<b>NATURAL GAS VEHICLES (a sempra-wide rate)</b>									
31	Customer Charge, P-1	263	\$13.00	\$41	221	\$13.00	\$34	(\$7)	\$0.00000	0.0%
32	Customer Charge, P-2A	115	\$65.00	\$90	162	\$65.00	\$127	\$37	\$0.00000	0.0%
33	Uncompressed Rate Exclude CSITMA, GHG & CAT	178,769	\$0.22599	\$40,400	167,083	\$0.27222	\$45,483	\$5,082	\$0.04622	20.5%
34	Total Uncompressed NGV	178,769	\$0.22672	\$40,531	167,083	\$0.27318	\$45,644	\$5,113	\$0.04646	20.5%
35	Compressed Rate Adder	2,833	\$1.04173	\$2,951	10,232	\$0.91453	\$9,357	\$6,406	(\$0.12720)	-12.2%
36	Low Carbon Fuel Standard (LCFS) Credit		(\$1.22702)			(\$0.39682)			\$0.83020	
37	<b>Uncompressed Rate Include CSITMA, CARB and GHG Exclude CAT</b>									
38	CSITMA Adder to Volumetric Rate	178,769	\$0.00032	\$57	167,071	\$0.00034	\$56	(\$1)	\$0.00002	4.9%
39	CARB Adder to Volumetric Rate	178,769	\$0.00143	\$256	167,083	\$0.00160	\$267			
40	GHG End User Adder to Volumetric Rate	178,769	\$0.10911	\$19,505	167,083	\$0.11723	\$19,587			
41	Uncompressed Rate \$/therm		\$0.33685			\$0.39138			\$0.05453	16.2%
42	Combined transport & compressor adder & LCFS Credit \$/th		\$0.15156			\$0.90910			\$0.75754	499.8%
43	<b>Other Adjustments:</b>									
44	TCA for CSITMA exempt customers		(\$0.00032)			(\$0.00034)			(\$0.00002)	4.9%
45										
46	<b>TOTAL NGV SERVICE</b>	<b>178,769</b>	<b>\$0.35409</b>	<b>\$63,300</b>	<b>167,083</b>	<b>\$0.44835</b>	<b>\$74,912</b>	<b>\$11,611</b>	<b>\$0.09426</b>	<b>26.6%</b>
47										
48	<b>RESIDENTIAL NATURAL GAS VEHICLES (optional rate)</b>									
49	Customer Charge	216	\$10.00	\$26	195	\$10.00	\$23	(\$2)	\$0.00000	0.0%
50	Uncompressed Rate Exclude CSITMA & CAT	166	\$0.38664	\$64	151	\$0.38725	\$58	(\$6)	\$0.00061	0.2%
51		166	\$0.54240	\$90	151	\$0.54239	\$82	(\$8)	(\$0.00001)	0.0%
52	<b>Uncompressed Rate Include CSITMA, Exclude CAT</b>									
53	CSITMA Adder to Volumetric Rate	166	\$0.00032	\$0	151	\$0.00034	\$0		\$0.00002	4.9%
54	CARB Adder to Volumetric Rate	166	\$0.00143	\$0	151	\$0.00160	\$0			
55	GHG End User Adder to Volumetric Rate	166	\$0.10911	\$18	151	\$0.11723	\$18			
56	Uncompressed Rate \$/therm		\$0.49750			\$0.50642			\$0.00892	1.8%
57										
58	<b>Uncompressed Rate Include CSITMA &amp; CAT</b>									
59	CAT Adder to Volumetric Rate	0	\$0.00000	\$0	0	\$0.00000	\$0	\$0	\$0.00000	
60	Uncompressed Rate		\$0.49750			\$0.50642		\$0	\$0.00892	1.8%
61	<b>Other Adjustments:</b>									
62	TCA for CSITMA exempt customers		(\$0.00032)			(\$0.00034)			(\$0.00002)	4.9%
63										
64	<b>TOTAL RESIDENTIAL NATURAL GAS VEHICLES</b>	<b>166</b>	<b>\$0.65326</b>	<b>\$109</b>	<b>151</b>	<b>\$0.66156</b>	<b>\$100</b>	<b>(\$9)</b>	<b>\$0.00830</b>	<b>1.3%</b>



**TABLE 4**  
**Core Nonresidential Transportation Rates (continued)**  
**Southern California Gas Company**

09/20/22

TCAP 1/1/2024

	Present Rates			Proposed Rates			Changes			
	Mar-1-22 Volumes Mth	Average Rate \$/th	Mar-1-22 Revenue \$000's	Jan-1-24 Volumes Mth	Rate \$/th	Jan-1-24 Revenue \$000's	Revenue Change \$000's	Rate Change \$/th	% Rate change	
	A	B	C	D	E	F	G	H	I	
1										
2										
3	<b>NON-RESIDENTIAL GAS A/C</b>									
4	Customer Charge	8	\$150	\$14	4	\$150	\$7	(\$7)	\$0.0000	0.0%
5	Volumetric Rate	416	\$0.23531	\$98	140	\$0.37914	\$53	(\$45)	\$0.14384	61.1%
6		416	\$0.26990	\$112	140	\$0.43042	\$60	(\$52)	\$0.16053	59.5%
7	<b>Volumetric Rates Include CSITMA, Exclude CAT</b>									
8	CSITMA Adder to Volumetric Rate	416	\$0.00032	\$0	140	\$0.00034	\$0	(\$0)	\$0.00002	4.9%
9	Volumetric		\$0.23563			\$0.37948			\$0.14385	61.1%
10	<b>Volumetric Rates Include CSITMA &amp; CAT</b>									
11	CAT Adder to Volumetric Rate	0	\$0.00000	\$0	0	\$0.00000	\$0	\$0	\$0.00000	
12	Gas A/C Rate		\$0.23563			\$0.37948		\$0	\$0.14385	61.1%
13	<b>Other Adjustments:</b>									
14	TCA for CSITMA exempt customers		(\$0.00032)			(\$0.00034)			(\$0.00002)	4.9%
15										
16	<b>TOTAL A/C SERVICE</b>	<b>416</b>	<b>\$0.27022</b>	<b>\$112</b>	<b>140</b>	<b>\$0.43076</b>	<b>\$60</b>	<b>(\$52)</b>	<b>\$0.16054</b>	<b>59.4%</b>
17										
18	<b>GAS ENGINES</b>									
19	Customer Charge	711	\$50	\$427	652	\$50	\$391	(\$35)	\$0.00000	0.0%
20	Volumetric Exclude CSITMA & CAT	22,302	\$0.24003	\$5,353	19,830	\$0.24159	\$4,791	(\$562)	\$0.00156	0.7%
21		22,302	\$0.25917	\$5,780	19,830	\$0.26133	\$5,182	(\$598)	\$0.00216	0.8%
22	<b>Volumetric Rates Include CSITMA, Exclude CAT</b>									
23	CSITMA Adder to Volumetric Rate	22,302	\$0.00032	\$7	19,830	\$0.00034	\$7	(\$0)	\$0.00002	4.9%
24	Volumetric		\$0.24035			\$0.24193			\$0.00158	
25	<b>Volumetric Rates Include CSITMA &amp; CAT</b>									
26	CAT Adder to Volumetric Rate	0	\$0.00000	\$0	0	\$0.00000	\$0	\$0	\$0.00000	
27	Gas Engine Rate		\$0.24035			\$0.24193		\$0	\$0.00158	0.7%
28	<b>Other Adjustments</b>									
29	TCA for CSITMA exempt customers		(\$0.00032)			(\$0.00034)			(\$0.00002)	4.9%
30										
31	<b>TOTAL GAS ENGINES</b>	<b>22,302</b>	<b>\$0.25948</b>	<b>\$5,787</b>	<b>19,830</b>	<b>\$0.26166</b>	<b>\$5,189</b>	<b>(\$598)</b>	<b>\$0.00218</b>	<b>0.8%</b>
32										
33	<b>STREET &amp; OUTDOOR LIGHTING (equals average Non-CAT CCI Rate)</b>									
34	Street & Outdoor Lighting Base Rate		\$0.63128			\$0.68863			\$0.05735	9.1%
35										
36	<b>CORE ELECTRIC GENERATION (EG) (optional rate)</b>									
37	Customer Charge		\$50.00			\$50.00			\$0.00	
38	Rate excluding CAT		\$0.32677			\$0.38023			\$0.05346	
39	<b>Volumetric Rates Include CAT</b>									
40	CAT Adder to Volumetric Rate	0	\$0.00000	\$0	0	\$0.00000	\$0	\$0	\$0.00000	
41	Core EG Rate		\$0.32677			\$0.38023		\$0	\$0.05346	

**TABLE 5**

**Noncore Commercial & Industrial Rates**

**Southern California Gas Company**

09/20/22

TCAP 1/1/2024

	Present Rates			Proposed Rates			Changes			
	Mar-1-22 Volumes Mth	Average Rate \$/th	Mar-1-22 Revenue \$000's	Jan-1-24 Volumes Mth	Rate \$/th	Jan-1-24 Revenue \$000's	Revenue Change \$000's	Rate Change \$/th	% Rate change	
	A	B	C	D	E	F	G	H	I	
1	<b>NonCore Commercial &amp; Industrial Distribution Level</b>									
2	Customer Charge	563	\$350.00	\$2,367	526	\$350.00	\$2,209	(\$157)	\$0.00000	0.0%
3										
4	<b>Volumetric Rates Include CARB Fee, Exclude GHG, and CSITMA</b>									
5	Tier 1 = 250kth/yr	124,403	\$0.29279	\$36,424	118,870	\$0.33458	\$39,772	\$3,348	\$0.04180	14.3%
6	Tier 2 = 250k to 1000k	217,228	\$0.18422	\$40,018	207,858	\$0.20922	\$43,489	\$3,471	\$0.02500	13.6%
7	Tier 3 = 1 to 2 million th/yr	118,763	\$0.11477	\$13,631	114,904	\$0.12903	\$14,826	\$1,196	\$0.01426	12.4%
8	Tier 4 = over 2 million th/yr	459,341	\$0.06514	\$29,923	452,654	\$0.07173	\$32,468	\$2,545	\$0.00658	10.1%
9	Volumetric totals (excl itcs)	919,735	\$0.13047	\$119,995	894,285	\$0.14599	\$130,555	\$10,560	\$0.01552	11.9%
10										
11	<b>Volumetric Rates Include CARB, GHG, CSITMA</b>									
12	CSITMA Adder to Volumetric Rate		\$0.00032	\$293		\$0.00034	\$299	\$6	\$0.00002	4.9%
13	GHG Adder to Volumetric Rate		\$0.10911	\$44,391		\$0.11723	\$46,377	\$1,987	\$0.00813	
14	Tier 1 = 250kth/yr		\$0.40221			\$0.45215			\$0.04994	12.4%
15	Tier 2 = 250k to 1000k		\$0.29365			\$0.32679			\$0.03315	11.3%
16	Tier 3 = 1 to 2 million th/yr		\$0.22420			\$0.24660			\$0.02240	10.0%
17	Tier 4 = over 2 million th/yr		\$0.17457			\$0.18930			\$0.01473	8.4%
18	<b>Other Adjustments:</b>									
19	TCA for CSITMA exempt customers		(\$0.00032)			(\$0.00034)			(\$0.00002)	4.9%
20	CARB Fee Credit \$/th		(\$0.00143)			(\$0.00160)			(\$0.00017)	11.7%
21	GHG Fee Credit \$/th		(\$0.10911)			(\$0.11723)			(\$0.00813)	
22	<b>NCCI - DISTRIBUTION LEVEL</b>	<b>919,735</b>	<b>\$0.18162</b>	<b>\$167,045</b>	<b>894,285</b>	<b>\$0.20065</b>	<b>\$179,440</b>	<b>\$12,395</b>	<b>\$0.01903</b>	<b>10.5%</b>
23										
24	NCCI-TRANSMISSION LEVEL Incl CARB & GHG Fee Excl CSITMA (1)	3,661	\$0.03003	\$110	4,219	\$0.05091	\$215	\$105	\$0.02088	69.5%
25	NCCI-TRANSMISSION LEVEL Incl CARB & GHG Fee, SGIP and CSITMA	622,419	\$0.03035	\$20,884	746,461	\$0.05124	\$39,553	\$18,669	\$0.02090	68.9%
26	NCCI-TRANSMISSION LEVEL (2)	626,080	\$0.03353	\$20,994	750,680	\$0.05298	\$39,768	\$18,774	\$0.01944	58.0%
27										
28	<b>TOTAL NONCORE C&amp;I</b>	<b>1,545,814</b>	<b>\$0.12164</b>	<b>\$188,039</b>	<b>1,644,965</b>	<b>\$0.13326</b>	<b>\$219,207</b>	<b>\$31,169</b>	<b>\$0.01162</b>	<b>9.5%</b>

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

09/20/22  
 TCAP 1/1/2024

	Present Rates			Proposed Rates			Changes			
	Mar-1-22 Volumes	Average Rate	Mar-1-22 Revenue	Jan-1-24 Volumes	Rate	Jan-1-24 Revenue	Revenue Change	Rate Change	% Rate change	
	Mth A	\$/th B	\$000's C	Mth D	\$/th E	\$000's F	\$000's G	\$/th H	% I	
1										
2	<b>ELECTRIC GENERATION</b>									
3										
4										
5	<b>Small EG Distribution Level Service (a Sempra-Wide rate) Exclude CARB &amp; GHG Fee &amp; CSITMA:</b>									
6	Customer Charge	308	\$50.00	\$185	309	\$50.00	\$185	\$0	\$0.00000	0.0%
7	Volumetric Rate	88,449	\$0.17290	\$15,292	114,668	\$0.17863	\$20,484	\$5,191	\$0.00574	3.3%
8	Small EG Distribution Level Service	88,449	\$0.17499	\$15,477	114,668	\$0.18025	\$20,669	\$5,192	\$0.00526	3.0%
9										
10	<b>Large EG Distribution Level Service (a Sempra-Wide rate) Exclude CARB &amp; GHG Fee &amp; CSITMA</b>									
11	Customer Charge	30	\$0.00	\$0	25	\$0.00	\$0	\$0	\$0.00000	
12	Volumetric Rate	242,993	\$0.09864	\$23,968	220,612	\$0.11349	\$25,036	\$1,068	\$0.01485	15.1%
13	Large EG Distribution Level Service	242,993	\$0.09864	\$23,968	220,612	\$0.11349	\$25,036	\$1,068	\$0.01485	15.1%
14										
15	EG Distribution excl CARB Fee & CSITMA	331,442	\$0.11901	\$39,445	335,280	\$0.13632	\$45,705	\$6,260	\$0.01731	14.5%
16										
17	<b>Volumetric Rates Include CARB &amp; GHG Fee, Exclude CSITMA</b>									
18	CARB Fee Cost Adder	330,876	\$0.00143	\$474	294,526	\$0.00160	\$471	(\$3)	\$0.00017	11.7%
19	GHG Cost Adder	107,739	\$0.10911	\$11,755	126,300	\$0.11723	\$14,806	\$3,051	\$0.00813	
20	EG-Distribution Tier 1 w/CARB Fee		\$0.28343			\$0.29747			\$0.01403	5.0%
21	EG-Distribution Tier 2 w/CARB Fee		\$0.20917			\$0.23232			\$0.02314	11.1%
22	Total - EG Distribution Level	331,442	\$0.15591	\$51,675	335,280	\$0.18189	\$60,983	\$9,309	\$0.02598	16.7%
23	CARB Fee Credit \$/th		(\$0.00143)			(\$0.00160)			(\$0.00017)	11.7%
24	GHG Fee Credit \$/th		(\$0.10911)			(\$0.11723)			(\$0.00813)	
25										
26	EG Transmission Level Service Excl CARB & GHG Fee & CSITMA (1)	2,246,336	\$0.02859	\$64,233	1,800,969	\$0.04931	\$88,803	\$24,570	\$0.02071	72.4%
27	EG Transmission Level CARB Fee	634,285	\$0.00143	\$909	226,362	\$0.00160	\$362	(\$547)	\$0.00017	
28	EG Transmission Level Service - GHG End User Fee	24,990	\$0.10911	\$2,727	19,998	\$0.11723	\$2,344			
29	EG Transmission Level Service - SGIP	2,246,336	\$0.00252	\$5,664	1,800,969	\$0.00129	\$2,324			
30	EG Transmission Level Service Incl CARB & GHG Fee, Exclude CSITMA (1)									
31	EG Transmission Level (2)	2,246,336	\$0.03273	\$73,532	1,800,969	\$0.05210	\$93,833	\$20,301	\$0.01937	59.2%
32										
33	<b>TOTAL ELECTRIC GENERATION</b>	<b>2,577,778</b>	<b>\$0.04857</b>	<b>\$125,206</b>	<b>2,136,249</b>	<b>\$0.07247</b>	<b>\$154,816</b>	<b>\$29,610</b>	<b>\$0.02390</b>	<b>49.2%</b>
34										
35	<b>EOR Rates &amp; revenue Exclude CARB Fee &amp; CSITMA:</b>									
36	Distribution Level EOR:									
37	Customer Charge	23	\$500.00	\$138	18	\$500.00	\$108	(\$30)	\$0.00000	0.0%
38	Volumetric Rate Excl CARB & GHG Fee & CSITMA	151,758	\$0.11810	\$17,923	110,501	\$0.13534	\$14,956	(\$2,967)	\$0.01724	14.6%
39										
40	<b>Volumetric Rates Include CARB &amp; GHG Fee, Exclude CSITMA</b>									
41	CARB Fee		\$0.00143			\$0.00160				
42	GHG Fee		\$0.10911			\$0.11723				
43	Volumetric Rate Incl CARB Fee & Excl CSITMA		\$0.22864			\$0.25417			\$0.02553	11.2%
44	Distribution Level EOR	151,758	\$0.11901	\$18,061	110,501	\$0.13632	\$15,064	(\$2,997)	\$0.01731	14.5%
45	CARB Fee Credit \$/th		(\$0.00143)			(\$0.00160)			(\$0.00017)	11.7%
46	GHG Fee Credit \$/th		(\$0.10911)			(\$0.11723)			(\$0.00813)	
47	Transmission Level EOR Exclude CARB & GHG Fee & CSITMA	57,184	\$0.02859	\$1,635	43,565	\$0.04931	\$2,148	\$513	\$0.02071	72.4%
48	<b>Total EOR</b>	<b>208,941</b>	<b>\$0.09427</b>	<b>\$19,696</b>	<b>154,067</b>	<b>\$0.11172</b>	<b>\$17,212</b>	<b>(\$2,484)</b>	<b>\$0.01745</b>	<b>18.5%</b>

1) CSITMA - Noncore C&I D Tariff rate Include CSITMA. Customers exempt, including Constitutionally Exempt, receive Transportation Charge Adjustment (TCA).  
 EG Tariff Rate Exclude CSITMA, since EG customers are exempt.  
 2) CARB & GHG Fees - EG-D and NC&D rates include CARB & GHG Fees.  
 3) EOR customers tariff Include CARB & GHG Fees and Excludes CSITMA; since EOR customers are exempt from CSITMA and get a credit for CARB & GHG Fees.  
 See footnotes, Table 1.

**TABLE 7**  
**Transmission Level Service Transportation Rates**  
**Southern California Gas Company**  
09/20/22

	Present Rates			Proposed Rates			Changes			
	Mar-1-22	Average	Mar-1-22	Jan-1-24	Rate	Jan-1-24	Revenue	Rate	% Rate	
	Volumes Mth A	Rate \$/th B	Revenue \$000's C	Volumes Mth D	Rate \$/th E	Revenue \$000's F	Change \$000's G	Change \$/th H	change % I	
1	<b>Rate Excluding CSITMA &amp; CARB Fee:</b>									
2	Reservation Service Option (RS):									
3	Daily Reservation rate \$/th/day	\$0.01070			\$0.02363			\$0.01293	120.8%	
4	Usage Charge for RS \$/th	\$0.01274			\$0.01232			(\$0.00042)	-3.3%	
5	Class Average Volumetric Rate (CA)									
6	Volumetric Rate \$/th	\$0.01584			\$0.03699			\$0.02114	133.5%	
7	Usage Charge for CA \$/th	\$0.01274			\$0.01232			(\$0.00042)	-3.3%	
8	Class Average Volumetric Rate (CA) \$/th									
9		\$0.02858			\$0.04931			\$0.02073	72.5%	
10	115% CA (for NonBypass Volumetric NV) \$/th	\$0.03287			\$0.05670			\$0.02383	72.5%	
11	135% CA (for Bypass Volumetric BV) \$/th	\$0.03859			\$0.06657			\$0.02798	72.5%	
12	<b>Total Transmission Level Service (NCCI, EOR, EG)</b>	<b>2,872,415</b>	<b>\$0.02859</b>	<b>\$82,135</b>	<b>2,551,649</b>	<b>\$0.04931</b>	<b>\$125,818</b>	<b>\$43,683</b>	<b>\$0.02071</b>	<b>72.4%</b>
13										
14	<b>C&amp;I Rate Including CSITMA &amp; CARB &amp; GHG &amp; SGIP Fee:</b>									
15	CSITMA Adder to Usage Charge	622,419	\$0.00032	\$199	746,461	\$0.00034	\$251	\$51	\$0.00002	
16	CARB Fee Adder	1,260,365	\$0.00143	\$1,807	977,042	\$0.00160	\$1,564		\$0.00017	
17	GHG Fee Adder	32,596	\$0.10911	\$3,556	29,117	\$0.11723	\$3,413		\$0.00813	
18	SGIP Adder	626,080	\$0.00186	\$1,165	750,680	\$0.00031	\$231		(\$0.00155)	
19	Reservation Service Option (RS):									
20	Daily Reservation rate \$/th/day	\$0.01070			\$0.02363		\$0	\$0.01293	120.8%	
21	Usage Charge for RS \$/th	\$0.12546			\$0.13180		\$0	\$0.00634	5.1%	
22	Class Average Volumetric Rate (CA)									
23	Volumetric Rate \$/th	\$0.01584			\$0.03699		\$0	\$0.02114	133.5%	
24	Usage Charge for CA \$/th	\$0.12546			\$0.13180		\$0	\$0.00634	5.1%	
25	Class Average Volumetric Rate (CA) \$/th									
26		\$0.14130			\$0.16878		\$0	\$0.02748	19.4%	
27	115% CA (for NonBypass Volumetric NV) \$/th	\$0.14559			\$0.17618		\$0	\$0.03059	21.0%	
28	135% CA (for Bypass Volumetric BV) \$/th	\$0.15131			\$0.18604		\$0	\$0.03474	23.0%	
29	<b>Other Adjustments:</b>									
30	Transportation Charge Adj. (TCA) for CSITMA exempt customers		(\$0.00032)			(\$0.00034)			(\$0.00002)	
31	California Air Resources Board (CARB) Fee Credit \$/th		(\$0.00143)			(\$0.00160)			(\$0.00017)	
32	GHG Fee Credit		(\$0.10911)			(\$0.11723)			(\$0.00813)	
33	<b>Total Transmission Level Service Include CSITMA &amp; CARB &amp; GHG &amp; SGIP</b>	<b>2,872,415</b>	<b>\$0.03094</b>	<b>\$88,862</b>	<b>2,551,649</b>	<b>\$0.05145</b>	<b>\$131,277</b>	<b>\$42,415</b>	<b>\$0.02051</b>	<b>66.3%</b>
34										
35	<b>EG &amp; EOR Rate Including CARB Fee &amp; GHG , excluding CSITMA:</b>									
36	CARB Fee Adder		\$0.00143			\$0.00160			\$0.00017	
37	GHG Fee Adder		\$0.10911			\$0.11723			\$0.00813	
38	SGIP Adder	2,246,336	\$0.00252	\$5,664	1,800,969	\$0.00129	\$2,324			
39	Reservation Service Option (RS):									
40	Daily Reservation rate \$/th/day	\$0.01070			\$0.02363		\$0	\$0.01293	120.8%	
41	Usage Charge for RS \$/th	\$0.12580			\$0.13244		\$0	\$0.00664	5.3%	
42	Class Average Volumetric Rate (CA)									
43	Volumetric Rate \$/th	\$0.01584			\$0.03699		\$0	\$0.02114	133.5%	
44	Usage Charge for CA \$/th	\$0.12580			\$0.13244		\$0	\$0.00664	5.3%	
45	Class Average Volumetric Rate (CA) \$/th									
46		\$0.14164			\$0.16943		\$0	\$0.02779	19.6%	
47	115% CA (for NonBypass Volumetric NV) \$/th	\$0.14593			\$0.17683		\$0	\$0.03090	21.2%	
48	135% CA (for Bypass Volumetric BV) \$/th	\$0.15165			\$0.18669		\$0	\$0.03504	23.1%	
49										
50	<b>Other Adjustments:</b>									
51	California Air Resources Board (CARB) Fee Credit \$/th		(\$0.00143)			(\$0.00160)			(\$0.00017)	
52	Greenhouse Gas (GHG) Fee Credit \$/th		(\$0.10911)			(\$0.11723)			(\$0.00813)	
53										
54	<b>Rate Excluding CSITMA, CARB, GHG Fee, &amp; Uncollectibles (applicable to Wholesale &amp; International):</b>									
55	Reservation Service Option (RS):									
56	Daily Reservation rate \$/th/day	\$0.01067			\$0.02357			\$0.01289	120.8%	
57	Usage Charge for RS \$/th	\$0.01270			\$0.01229			(\$0.00042)	-3.3%	
58	Class Average Volumetric Rate (CA)									
59	Volumetric Rate \$/th	\$0.01580			\$0.03688			\$0.02109	133.5%	
60	Usage Charge for CA \$/th	\$0.01270			\$0.01229			(\$0.00042)	-3.3%	
61	Class Average Volumetric Rate (CA) \$/th									
62		\$0.02850			\$0.04917			\$0.02067	72.5%	
63	115% CA (for NonBypass Volumetric NV) \$/th	\$0.03278			\$0.05655			\$0.02377	72.5%	
64	135% CA (for Bypass Volumetric BV) \$/th	\$0.03848			\$0.06638			\$0.02790	72.5%	
65	<b>Total Transmission Level Service (WS &amp; Int'l)</b>	<b>359,267</b>	<b>\$0.02859</b>	<b>\$10,273</b>	<b>402,918</b>	<b>\$0.04931</b>	<b>\$19,867</b>	<b>\$9,594</b>	<b>\$0.02071</b>	<b>72.4%</b>
66										
67	<b>Average Transmission Level Service</b>	<b>3,231,682</b>	<b>\$0.03243</b>	<b>\$104,799</b>	<b>2,954,567</b>	<b>\$0.05194</b>	<b>\$153,468</b>	<b>\$48,670</b>	<b>\$0.01951</b>	<b>60.2%</b>

**TABLE 8**  
**Backbone Transmission Service and Storage Rates**  
**Southern California Gas Company**  
09/20/22

	Present Rates			Proposed Rates			Changes			
	Mar-1-22	Average	Mar-1-22	Jan-1-24	Rate	Jan-1-24	Revenue	Rate	% Rate	
	Volumes	Rate	Revenue	Volumes	\$/th	Revenue	Change	Change	change	
	Mth	\$/th	\$000's	Mth, Mth	\$/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	2,532	\$0.36798	\$340,120	2,532	\$0.50099	\$463,062	\$122,942	\$0.13301	36.1%
3	BTS MFV Reservation Charge \$/dth/day		\$0.29438			\$0.40079				
4	BTS MFV Volumetric Charge \$/dth		\$0.07360			\$0.10020				
5	BTS Interruptible Volumetric Charge \$/dth		\$0.36798			\$0.50099		\$0.13301	36.1%	
6										
7										
8	<b>Storage Costs: (incl. HRSMA)</b>									
9	Core \$000			\$114,299			\$145,970	\$31,671		
10	Load Balancing \$000			\$74,383			\$115,390	\$41,007		
11	Unbundled Storage \$000			\$0			\$0	\$0		
12			\$188,682			\$261,360	\$72,678			

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 Fee - 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 excludes CSITMA and CARB Fee since these customers are exempt.

# APPENDIX B

**TABLE 1**  
**Natural Gas Transportation Rate Revenues**  
**San Diego Gas & Electric**  
**January, 2024 Rates**  
09/20/22  
TCAP 1/1/2024

	At Present Rates			At Proposed Rates			Changes		
	Mar-1-22	Average	Mar-1-22	Jan-1-24	Average	Jan-1-24	Revenues	Rates	Rate
	Volumes	Rate	Revenues	Volumes	Rate	Revenues	Revenues	Rates	change
	mtherms	\$/therm	\$000's	mtherms	\$/therm	\$000's	\$000's	\$/therm	%
	A	B	C	D	E	F	G	H	I
<b>CORE</b>									
Residential	313,234	\$1.47125	\$460,846	270,604	\$1.69468	\$458,588	(\$2,258)	\$0.22343	15.2%
Commercial & Industrial	194,777	\$0.61067	\$118,944	178,913	\$0.63368	\$113,373	(\$5,571)	\$0.02301	3.8%
NGV - Pre Sempra-Wide	24,129	\$0.26582	\$6,414	23,179	\$0.29564	\$6,852	\$439	\$0.02982	11.2%
Sempra-Wide Adjustment	24,129	\$0.08914	\$2,151	23,179	\$0.10684	\$2,476	\$326	\$0.01770	19.9%
NGV Post Sempra-Wide	24,129	\$0.35496	\$8,565	23,179	\$0.40248	\$9,329	\$764	\$0.04752	13.4%
<b>Total CORE</b>	<b>532,140</b>	<b>\$1.10564</b>	<b>\$588,355</b>	<b>472,696</b>	<b>\$1.22973</b>	<b>\$581,290</b>	<b>(\$7,065)</b>	<b>\$0.12410</b>	<b>11.2%</b>
<b>NONCORE COMMERCIAL &amp; INDUSTRIAL</b>									
Distribution Level Service	29,376	\$0.16284	\$4,783	35,337	\$0.19954	\$7,051	\$2,268	\$0.03670	22.5%
Transmission Level Service (2)	17,569	\$0.03423	\$601	13,965	\$0.05627	\$786	\$184	\$0.02204	64.4%
<b>Total Noncore C&amp;I</b>	<b>46,945</b>	<b>\$0.11471</b>	<b>\$5,385</b>	<b>49,302</b>	<b>\$0.15896</b>	<b>\$7,837</b>	<b>\$2,452</b>	<b>\$0.04425</b>	<b>38.6%</b>
<b>NONCORE ELECTRIC GENERATION</b>									
Distribution Level Service									
Pre Sempra-Wide	68,867	\$0.11988	\$8,256	71,656	\$0.15218	\$10,904	\$2,649	\$0.03230	26.9%
Sempra-Wide Adjustment	68,867	\$0.05768	\$3,973	71,656	\$0.05591	\$4,006	\$33	(\$0.00178)	-3.1%
Distribution Level post SW	68,867	\$0.17756	\$12,228	71,656	\$0.20808	\$14,910	\$2,682	\$0.03052	17.2%
Transmission Level Service (2)	461,363	\$0.02990	\$13,795	225,945	\$0.04952	\$11,188	(\$2,607)	\$0.01962	65.6%
<b>Total Electric Generation</b>	<b>530,230</b>	<b>\$0.04908</b>	<b>\$26,023</b>	<b>297,600</b>	<b>\$0.08769</b>	<b>\$26,098</b>	<b>\$75</b>	<b>\$0.03862</b>	<b>78.7%</b>
<b>TOTAL NONCORE</b>	<b>577,175</b>	<b>\$0.05442</b>	<b>\$31,408</b>	<b>346,902</b>	<b>\$0.09782</b>	<b>\$33,935</b>	<b>\$2,527</b>	<b>\$0.04341</b>	<b>79.8%</b>
<b>SYSTEM TOTAL</b>	<b>1,109,315</b>	<b>\$0.55869</b>	<b>\$619,763</b>	<b>819,598</b>	<b>\$0.75064</b>	<b>\$615,225</b>	<b>(\$4,537)</b>	<b>\$0.19195</b>	<b>34.4%</b>

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

**TABLE 2**  
**Core Gas Transportation Rates**  
**San Diego Gas & Electric**  
**January, 2024 Rates**  
09/20/22  
TCAP 1/1/2024

	At Present Rates			At Proposed Rates			Changes		
	Mar-1-22	Average	Mar-1-22	Jan-1-24	Average	Jan-1-24	Revenues	Rates	Rate
	Volumes mtherms	Rate \$/therm	Revenues \$000's	Volumes mtherms	Rate \$/therm	Revenues \$000's	\$000's	\$/therm	% I
	A	B	C	D	E	F	G	H	I
<b>1 Residential RATES Schedule GR,GM</b>									
<b>2 Rates Exclude CSITMA &amp; CAT</b>									
3 Minimum Bill/Customer Charge	874,067	\$4.00	\$1,816	909,359	\$4.00	\$1,428	(\$388)		
4									
5 Baseline \$/therm	255,260	\$1.33274	\$340,195	192,242	\$1.52205	\$292,602.802	(\$47,592)	\$0.18931	14.2%
6 Non-Baseline \$/therm	57,974	\$1.60650	\$93,136	78,361	\$1.81951	\$142,579.178	\$49,443	\$0.21301	13.3%
7 Average Rate \$/therm	313,234	\$1.38921	\$435,147	270,604	\$1.61347	\$436,610	\$1,463	\$0.22426	16.1%
8 NBL/BL Ratio									
9 Composite Rate \$/th		\$ 1.83219			\$1.93350			\$0.10131	
10 Gas Rate \$/th		\$ 0.49233			\$0.40402			-\$0.08831	-17.9%
11 NBL/Composite rate ratio		1.1455335			1.1500000				
12 NBL- BL rate difference \$/th		0.27376			\$0.29745			\$0.02369	
13									
14 <b>Rates Include CSITMA, CARB and GHG Adders, Excludes CAT</b>									
15 CSITMA Adder to Volumetric Rate	246,343	\$0.00162	\$399	203,713	\$0.00183	\$373	(\$26)	\$0.00021	13.0%
16 CARB Adder to Volumetric Rate	313,234	\$0.00137	\$429	270,604	\$0.00115	\$311			
17 GHG End User Adder to Volumetric Rate	313,234	\$0.09628	\$30,158	270,604	\$0.10546	\$28,538			
18 Baseline \$/therm		\$1.43201			\$1.63049			\$0.19848	13.9%
19 Non-Baseline \$/therm		\$1.70579			\$1.92795			\$0.22218	13.0%
20 Average NonCARE Rate \$/therm		\$1.48848			\$1.72191			\$0.23343	15.7%
21									
22 <b>Sub Meter Credit Schedule GS,GT</b>									
23 GS Unit Discount \$/day	5,879	(\$0.58060)	(\$1,246)	5,879	(\$0.82422)	(\$1,768)	(\$523)	(\$0.24362)	42.0%
24 GT Unit Discount \$/day	26,104	(\$0.60099)	(\$5,726)	26,104	(\$0.85085)	(\$8,107)	(\$2,381)	(\$0.24986)	41.6%
25									
26 <b>Schedule GL-1</b>									
27 LNG Facility Charge, domestic use \$/month	293	\$14.79	\$52	262	\$14.79	\$47		\$0.00000	0.0%
28 LNG Facility Charge, non-domestic \$/mth/mbtu		\$0.05480			\$0.05480			\$0.00000	0.0%
29 LNG Volumetric Surcharge \$/th	76	\$0.16571	\$13	78	\$0.16571	\$13		\$0.00000	0.0%
30			\$65			\$59			
31 <b>Volumetric Rates Include All Adders &amp; CAT</b>									
32 CAT Adder to Volumetric Rate	2,253	\$0.00002	\$0	1,336	\$0.00002	\$0.029	(\$0)	\$0.00000	
33 Baseline \$/therm		\$1.43203			\$1.63051			\$0.19849	13.9%
34 Non-Baseline \$/therm		\$1.70579			\$1.92797			\$0.22218	13.0%
35 Average Rate \$/therm		\$1.48849			\$1.72193			\$0.23343	15.7%
36									
37 <b>Other Adjustments:</b>									
38 Employee Discount			(\$367)			\$606	\$973		
39 SDFFD			\$1,987			\$1,966	(\$21)		
40									
41 Credit for CSITMA Exempt Customers:		(\$0.00162)			(\$0.00183)			(\$0.00021)	13.0%
42									
43 California Climate Credit - April Bill		(\$43.06)			(\$43.06)				
44 <b>Total Residential</b>	<b>313,234</b>	<b>\$1.47125</b>	<b>\$460,846</b>	<b>270,604</b>	<b>\$1.69468</b>	<b>\$458,588.150</b>	<b>(\$2,258)</b>	<b>\$0.22343</b>	<b>15.2%</b>

See footnotes, Table 1.

**TABLE 3**  
**Natural Gas Transportation Rate Revenues**  
**San Diego Gas & Electric**  
**January, 2024 Rates**  
**TCAP 1/1/2024**

	At Present Rates			At Proposed Rates			Changes		
	Mar-1-22	Average	Mar-1-22	Jan-1-24	Average	Jan-1-24	Revenues	Rates	Rate
	Volumes mtherms	Rate \$/therm	Revenues \$000's	Volumes mtherms	Rate \$/therm	Revenues \$000's	\$000's	\$/therm	change %
	A	B	C	D	E	F	G	H	I
<b>CORE COMMERCIAL &amp; INDUSTRIAL RATES Schedule GN-3</b>									
Customer Charge \$/month	30,937	\$10.00	\$3,712	30,488	\$10.00	\$3,659	(\$54)	\$0.00000	0.0%
<b>Rates Exclude CSITMA &amp; CAT</b>									
Tier 1 = 0 to 1,000 therms/month	87,627	\$0.72694	\$63,700	80,437	\$0.74333	\$59,791	(\$3,908)	\$0.01639	2.3%
Tier 2 = 1,001 to 21,000 therms/month	88,939	\$0.48348	\$43,000	81,765	\$0.50875	\$41,598	(\$1,402)	\$0.02527	5.2%
Tier 3 = over 21,000 therms/month	18,211	\$0.41470	\$7,552	16,711	\$0.44248	\$7,394	(\$158)	\$0.02778	6.7%
<b>Rates Includes CSITMA, Excludes CAT</b>									
CSITMA Adder to Volumetric Rate	185,415	\$0.00162	\$300	169,551	\$0.00183	\$310	\$10	\$0.00021	13.0%
Tier 1 = 0 to 1,000 therms/month		\$0.72856			\$0.74516			\$0.01660	2.3%
Tier 2 = 1,001 to 21,000 therms/month		\$0.48510			\$0.51058			\$0.02548	5.3%
Tier 3 = over 21,000 therms/month		\$0.41632			\$0.44431			\$0.02799	6.7%
<b>Rates Include CSITMA &amp; CAT</b>									
CAT Adder to Volumetric Rate	39,978	\$0.00002	\$1	31,043	\$0.00002	\$1	(\$0)	\$0.00000	
Tier 1 = 0 to 1,000 therms/month		\$0.72858			\$0.74518			\$0.01661	2.3%
Tier 2 = 1,001 to 21,000 therms/month		\$0.48512			\$0.51060			\$0.02549	5.3%
Tier 3 = over 21,000 therms/month		\$0.41634			\$0.44433			\$0.02799	6.7%
<b>Other Adjustments:</b>									
Adjustment for SDDFD			\$679			\$620	(\$59)		
Credit for CSITMA Exempt Customers:		(\$0.00162)			(\$0.00183)			(\$0.00021)	13.0%
<b>Total Core C&amp;I</b>	<b>194,777</b>	<b>\$0.61067</b>	<b>\$118,944</b>	<b>178,913</b>	<b>\$0.63368</b>	<b>\$113,373</b>	<b>(\$5,571)</b>	<b>\$0.02301</b>	<b>3.8%</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**  
09/20/22  
**January, 2024 Rates**  
TCAP 1/1/2024

	At Present Rates			At Proposed Rates			Changes		
	Mar-1-22	Average	Mar-1-22	Jan-1-24	Average	Jan-1-24	Revenues	Rates	Rate
	Volumes	Rate	Revenues	Volumes	Rate	Revenues	\$000's	\$/therm	change
	A	B	C	D	E	F	G	H	I
<b>1 NATURAL GAS VEHICLE RATES G-NGV &amp; GT-NGV</b>	Sempra-Wide NGV Rates			Sempra-Wide NGV Rates					
2 Customer Charge									
3 P1 \$/month	15	\$13.00	\$2	15	\$13.00	\$2	\$0	\$0.00	0.0%
4 P2A \$/month	13	\$65.00	\$10	21	\$65.00	\$16	\$6	\$0.00	0.0%
5									
6 <b>Uncompressed Rate Exclude CSITMA &amp; CAT \$/therm</b>	24,129	\$0.22737	\$5,486	23,179	\$0.27387	\$6,348	\$862	\$0.04651	20.5%
7 Compressor Adder \$/therm exclude CSITMA & CAT	628	\$1,04808	\$658	471	\$0,92010	\$433	(\$225)	(\$0.12797)	-12.2%
8 Combined transport & compressor adder \$/th		\$1.27544			\$1.19398			(\$0.08147)	-6.4%
9 Low Carbon Fuel Standard (LCFS) Credit		(\$1.23449)			(\$0.39924)				
10 <b>Volumetric Rates Include CSITMA, CARB and GHG excludes CAT</b>									
11 CSITMA Adder to Volumetric Rate	24,129	\$0.00162	\$39	23,179	\$0.00183	\$42	\$3	\$0.00021	13.0%
12 CARB Adder to Volumetric Rate	24,129	\$0.00137	\$33	23,179	\$0.00115	\$27			
13 GHG End User Adder to Volumetric Rate	24,129	\$0.09628	\$2,323	23,179	\$0.10546	\$2,444			
14 Uncompressed Rate \$/therm		\$0.32664			\$0.38231			\$0.05568	17.0%
15 Combined transport & compressor adder & LCFS Credit \$/th		\$0.14022			\$0.90318			\$0.76296	544.1%
16									
17 <b>Volumetric Rates Include CSITMA &amp; CAT</b>									
18 CAT Adder to Volumetric Rate		\$0.00000			\$0.00000				
19 Uncompressed Rate \$/therm		\$0.32664			\$0.38231			\$0.05568	17.0%
20 Combined transport & compressor adder \$/th		\$1.37471			\$1.30242			(\$0.07230)	-5.3%
21 <b>Other Adjustments:</b>									
22 Adjustment for SDDFD			\$12			\$15	\$3		
23 Credit for CSITMA Exempt Customers \$/th		(\$0.00162)			(\$0.00183)			(\$0.00021)	13.0%
24 Low Carbon Fuel Standard (LCFS) Credit		(\$1.23449)			(\$0.39924)				
25 <b>Total NGV</b>	<b>24,129</b>	<b>\$0.35496</b>	<b>\$8,565</b>	<b>23,179</b>	<b>\$0.40248</b>	<b>\$9,329</b>	<b>\$764</b>	<b>\$0.04752</b>	<b>13.4%</b>
26									
27 <b>RESIDENTIAL NATURAL GAS VEHICLES (optional rate)</b>									
28 Customer Charge	15	\$5.00	\$1	12	\$5.00	\$1	(\$0)	\$0.00	0.0%
29 <b>Uncompressed Rate w/o CSITMA &amp; CAT \$/therm</b>	9	\$1.91063	\$18	7	\$2.38009	\$18	(\$0)	\$0.46946	24.6%
30	9	\$2.00711	\$19	7	\$2.47656	\$18	(\$0)	\$0.46946	23.4%
31									
32 <b>Volumetric Rates Including CSITMA , Excluding CAT</b>									
33 CSITMA Adder to Volumetric Rate	9	\$0.00162	\$0	7	\$0.00183	\$0		\$0.00021	13.0%
34 CARB Adder to Volumetric Rate	9	\$0.00137	\$0	7	\$0.00115	\$0			
35 GHG End User Adder to Volumetric Rate	9	\$0.09628	\$1	7	\$0.10546	\$1			
36 Uncompressed Rate \$/therm		\$2.00990			\$2.48853			\$0.47863	23.8%
37									
38 <b>Volumetric Rates Include CSITMA &amp; CAT</b>									
39 CAT Adder to Volumetric Rate	0	\$0.00002	\$0	0	\$0.00002	\$0	\$0	\$0.00000	
40 Uncompressed Rate \$/therm		\$2.00992			\$2.48855		\$0	\$0.47863	23.8%
41									
42 <b>Other Adjustments:</b>									
43 Adjustment for SDDFD			\$0			\$0	\$0		
44 Credit for CSITMA Exempt Customers \$/th		(\$0.00162)			(\$0.00183)			(\$0.00021)	13.0%
45									
46 <b>Total Residential NGV</b>	<b>9</b>	<b>\$2.10638</b>	<b>\$20</b>	<b>7</b>	<b>\$2.58501</b>	<b>\$19</b>	<b>(\$0)</b>	<b>\$0.47863</b>	<b>22.7%</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**  
09/20/22  
**January, 2024 Rates**  
TCAP 1/1/2024

	At Present Rates			At Proposed Rates			Changes		
	Mar-1-22	Average	Mar-1-22	Jan-1-24	Average	Jan-1-24	Revenues	Rates	Rate
	Volumes	Rate	Revenues	Volumes	Rate	Revenues			
mtherms	\$/therm	\$000's	mtherms	\$/therm	\$000's	\$000's	\$/therm	%	
	A	B	C	D	E	F	G	H	I
<b>NonCore Commercial &amp; Industrial Distribution Level</b>									
Customer Charges \$/month	44	\$350.00	\$185	53	\$350.00	\$223	\$38	\$0.00	0.0%
<b>Volumetric Charges Exclude CARB, GHG, CSITMA</b>	29,376	\$0.07162	\$2,104	35,337	\$0.10011	\$3,538	\$1,434	\$0.02849	39.8%
CSITMA Adder to Volumetric Rate	24,049	\$0.00162	\$39	30,010	\$0.00183	\$55	\$16	\$0.00021	13.0%
GHG Adder to Volumetric Rate		\$0.09628	\$2,456		\$0.10546	\$3,236	\$780	\$0.00918	
<b>Volumetric Charges Include CARB, GHG, and CSITMA</b>									
Volumetric Rates \$/therm		\$0.16952			\$0.20740			\$0.03788	22.3%
<b>Other Adjustments:</b>									
SDFFD									
Credit for CSITMA Exempt Customers \$/th		(\$0.00162)			(\$0.00183)			(\$0.00021)	13.0%
Credit for CARB Fee Exempt Customers \$/th		(\$0.00137)			(\$0.00434)			(\$0.00297)	216.4%
Credit for GHG Fee Exempt Customers \$/th		(\$0.09628)			(\$0.10546)			(\$0.00918)	
<b>NCCI-Distribution Total</b>	<b>29,376</b>	<b>\$0.16284</b>	<b>\$4,783</b>	<b>35,337</b>	<b>\$0.19954</b>	<b>\$7,051</b>	<b>\$2,268</b>	<b>\$0.03670</b>	<b>22.5%</b>
<b>NCCI-Transmission Total (1)</b>	<b>17,569</b>	<b>\$0.03159</b>	<b>\$601</b>	<b>13,965</b>	<b>\$0.05337</b>	<b>\$785.86</b>	<b>\$184</b>	<b>\$0.02179</b>	<b>69.0%</b>
<b>NCCI-Transmission Class Average</b>	<b>17,569</b>	<b>\$0.03423</b>	<b>\$601</b>	<b>13,965</b>	<b>\$0.05627</b>	<b>\$786</b>			
<b>Total NonCore C&amp;I</b>	<b>46,945</b>	<b>\$0.11471</b>	<b>\$5,385</b>	<b>49,302</b>	<b>\$0.15896</b>	<b>\$7,837</b>	<b>\$2,452</b>	<b>\$0.04425</b>	<b>38.6%</b>
<b>ELECTRIC GENERATION</b>									
<b>Small EG Distribution Level Service (a Sempra-Wide rate) exclude CARB, GHG, and CSITMA</b>									
Customer Charge, \$/month	69	\$50.00	\$41	80	\$50.00	\$48	\$7	\$0.00	0.0%
Volumetric Rate \$/therm	24,662	\$0.17395	\$4,290	31,429	\$0.17972	\$5,648	\$1,359	\$0.01	3.3%
<b>Large EG Distribution Level Service (a Sempra-Wide rate) exclude CARB, GHG, and CSITMA</b>									
Customer Charge, \$/month		\$0.00			\$0.00			\$0.00	
Volumetric Rate (Incl ITCS) \$/th	44,206	\$0.09924	\$4,387	40,227	\$0.11418	\$4,593	\$206	\$0.01	15.1%
EG Distribution exclude CARB & GHG Fee, CSITMA	68,867	\$0.12659	\$8,718	71,656	\$0.14360	\$10,289	\$1,571	\$0.02	13.4%
<b>Volumetric Rates Includes CARB Fee, GHG Fee Excludes CSITMA:</b>									
CARB Fee Cost Adder - Small	24,560	\$0.00137	\$34	31,429	\$0.00434	\$136	\$103	\$0.00297	
CARB Fee Cost Adder - Large	44,206	\$0.00137	\$61	40,227	\$0.00434	\$174			
GHG Fee Cost Adder - Small	23,556	\$0.09628	\$2,268	30,020	\$0.10546	\$3,166	\$898	\$0.00918	
GHG Fee Cost Adder - Large	11,921	\$0.09628	\$1,148	10,848	\$0.10546	\$1,144			
EG-Distribution Tier 1 Incl CARB & GHG Fee, Excl CSITMA		\$0.27160			\$0.28952			\$0.01792	6.6%
EG-Distribution Tier 2 Incl CARB & GHG Fee, Excl CSITMA		\$0.19689			\$0.22398			\$0.02709	13.8%
Total - EG Distribution Level	68,867	\$0.17756	\$12,228	71,656	\$0.20808	\$14,910	\$2,682	\$0.03052	17.2%
Credit for CARB Fee Exempt Customers \$/th		(\$0.00137)			(\$0.00434)				
Credit for GHG Fee Exempt Customers \$/th		(\$0.09628)			(\$0.10546)				
EG Transmission Level Service Excl CARB & GHG fee & CSITMA	461,363	\$0.02859	\$13,192	225,945	\$0.04931	\$11,141	(\$2,051)	\$0.02071	72.4%
EG Transmission Level Service - CARB	39,584	\$0.00137	\$54	7,223	\$0.00224	\$16	(\$38)	\$0.00087	63.2%
EG Transmission Level Service - GHG	2,963	\$0.09628	\$285	0	\$0.10546	\$0			
EG Transmission Level Service - SGIP	461,363	\$0.00057	\$263	225,945	\$0.00014	\$31			
EG Transmission Level Service Incl CARB & GHG Fee & CSITMA									
EG Transmission Level Service - Average (1)	461,363	\$0.02990	\$13,795	225,945	\$0.04952	\$11,188			
<b>TOTAL ELECTRIC GENERATION</b>	<b>530,230</b>	<b>\$0.04908</b>	<b>\$26,023</b>	<b>297,600</b>	<b>\$0.08769</b>	<b>\$26,098</b>	<b>\$75</b>	<b>\$0.03862</b>	<b>78.7%</b>

1) CSITMA - Tariff rate Include CSITMA, exempt customers (including CARE participants and Constitutionally Exempt) receive Credit for CSITMA.  
Schedule EG Tariff Rate exclude CSITMA, since EG customers are exempt.  
2) CARB - GTNC and EG Tariff rates Include CARB. Those EG and GTNC customers that are exempt will receive CARB credit.  
3) GHG - GTNC and EG Tariff rates Include GHG. Those EG and GTNC customers that are exempt will receive GHG credit.  
See footnotes, Table 1.

**TABLE 6**  
**Transmission Level Service Gas Transportation Rates**  
**San Diego Gas & Electric**  
09/20/22  
**January, 2024 Rates**  
TCAP 1/1/2024

	At Present Rates			At Proposed Rates			Changes		
	Mar-1-22	Average	Mar-1-22	Jan-1-24	Average	Jan-1-24	Revenues	Rates	Rate
	Volumes	Rate	Revenues	Volumes	Rate	Revenues	Revenues	Rates	change
	mtherms	\$/therm	\$000's	mtherms	\$/therm	\$000's	\$000's	\$/therm	%
	A	B	C	D	E	F	G	H	I
<b>1 Transmission Level Service Rate Excluding CSITMA, CARB, and GHG Fees</b>									
2 Reservation Service Option (RS):									
3 Daily Reservation rate \$/th/day		\$0.01077			\$0.02378			\$0.01301	120.8%
4 Usage Charge for RS \$/th		\$0.01282			\$0.01240			(\$0.00042)	-3.3%
5									
6 Class Average Volumetric Rate (CA)									
7 Volumetric Rate \$/th		\$0.01594			\$0.03721			\$0.02127	133.5%
8 Usage Charge for CA \$/th		\$0.01282			\$0.01240			(\$0.00042)	-3.3%
9 Class Average Volumetric Rate CA \$/th		\$0.02876			\$0.04961			\$0.02085	72.5%
10									
11 115% CA (for NonBypass Volumetric NV) \$/th		\$0.03307			\$0.05705			\$0.02398	72.5%
12 135% CA (for Bypass Volumetric BV) \$/th		\$0.03882			\$0.06697			\$0.02815	72.5%
13									
14 Average Transmission Level Service	478,932	\$0.02859	\$13,695	239,910	\$0.04931	\$11,830	(\$1,865)	\$0.02071	72.4%
<b>15 C&amp;I Rate Include CSITMA, CARB, and GHG Fees</b>									
16 CSITMA Adder to Usage Rate \$/th	17,569	\$0.00162	\$28	13,965	\$0.00183	\$26	(\$3)	\$0.00021	13.0%
17 CARB Cost Adder	57,153	\$0.00137	\$78	21,188	\$0.00224	\$47		\$0.00087	
18 GHG Cost Adder	3,446	\$0.09628	\$332	384	\$0.10546	\$40		\$0.00918	
19 SGIP Adder	17,569	\$0.00000	\$0	13,965	\$0.00000	\$0			
20 Reservation Service Option (RS):									
21									
22 Daily Reservation rate \$/th/day		\$0.01077			\$0.02378		\$0	\$0.01301	120.8%
23 Usage Charge for RS \$/th		\$0.11209			\$0.12192		\$0	\$0.00984	8.8%
24									
25 Class Average Volumetric Rate (CA)									
26 Volumetric Rate \$/th		\$0.01594			\$0.03721		\$0	\$0.02127	133.5%
27 Usage Charge for CA \$/th		\$0.11209			\$0.12192		\$0	\$0.00984	8.8%
28 Class Average Volumetric Rate CA \$/th		\$0.12803			\$0.15914		\$0	\$0.03111	24.3%
29									
30 115% CA (for NonBypass Volumetric NV) \$/th		\$0.13234			\$0.16658		\$0	\$0.03424	25.9%
31 135% CA (for Bypass Volumetric BV) \$/th		\$0.13809			\$0.17650		\$0	\$0.03841	27.8%
32									
33 <b>Other Adjustments:</b>									
34 Credit for CSITMA Exempt Customers \$/th		(\$0.00162)			(\$0.00183)			(\$0.00021)	13.0%
35 CARB Fee Credit for Exempt Customers \$/th		(\$0.00137)			(\$0.00224)			(\$0.00087)	63.2%
36 GHG Fee Credit for Exempt Customers \$/th		(\$0.09628)			(\$0.10546)			(\$0.00918)	
37									
38 <b>EG Rate Include CARB &amp; GHG Fees, excludes CSITMA:</b>									
39 CARB Fee Cost Adder		\$0.00137			\$0.00224			\$0.00087	
40 GHG Fee Cost Adder		\$0.09628			\$0.10546			\$0.00918	
41 SGIP Adder	461,363	\$0.00057	\$263	225,945	\$0.00014	\$31			
42 Reservation Service Option (RS):									
43 Daily Reservation rate \$/th/day		\$0.01077			\$0.02378		\$0	\$0.01301	120.8%
44 Usage Charge for RS \$/th		\$0.11104			\$0.12023		\$0	\$0.00919	8.3%
45									
46 Class Average Volumetric Rate (CA)									
47 Volumetric Rate \$/th		\$0.01594			\$0.03721		\$0	\$0.02127	133.5%
48 Usage Charge for CA \$/th		\$0.11104			\$0.12023		\$0	\$0.00919	8.3%
49 Class Average Volumetric Rate CA \$/th		\$0.12698			\$0.15744		\$0	\$0.03047	24.0%
50									
51 115% CA (for NonBypass Volumetric NV) \$/th		\$0.13129			\$0.16488		\$0	\$0.03359	25.6%
52 135% CA (for Bypass Volumetric BV) \$/th		\$0.13704			\$0.17480		\$0	\$0.03776	27.6%
53									
54 <b>Other Adjustments:</b>									
55 CARB Fee Credit for Exempt Customers \$/th		(\$0.00137)			(\$0.00224)			(\$0.00087)	63.2%
56 GHG Fee Credit for Exempt Customers \$/th		(\$0.09628)			(\$0.10546)			(\$0.00918)	
57									
58 Average Transmission Level Service	478,932	\$0.03006	\$14,396	239,910	\$0.04991	\$11,974	(\$2,422)	\$0.01985	66.0%

# APPENDIX C

In D.17-09-035, the Commission defines marginal customer cost as the cost of providing service to an additional customer.<sup>38</sup> The Commission also identifies that “[n]ew connections costs are composed of costs associated with the investment required to provide access to a new customer . . .”<sup>39</sup> Algebraically, this can be expressed in basic marginal cost definition as follows:

$$\text{Marginal customer capital cost} = \frac{\Delta \text{ in total capital cost}}{\Delta \text{ in one additional customer}}$$

Marginal cost is defined for small additional units, in this case gas service to an additional customer. This is precisely how the Rental method calculates marginal customer capital cost. Trying to express the NCO method algebraically shows that it is inconsistent with the basic definition of marginal cost:

$$\text{NCO method customer capital cost} = \frac{\Delta \text{ in total capital cost for all new customers}}{\text{all customers (existing and new)}}$$

As the above equation shows, the denominator captures all customers, not a change in the number of customers, let alone change in one additional customer. NCO is an average cost method, not a marginal cost method. If the Commission is seeking to determine a true marginal customer cost, it must reject the NCO method, as it does not calculate the cost of providing service to an additional customer.

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<sup>38</sup> See D.17-09-035 at 18, n.29. See also D.92-12-058 at 11 and 38.

<sup>39</sup> D.17-09-035 at 55 (FOF 9).

**a. Adjusted Rental Methods**

In A.16-06-013, the Commission’s Energy Division proposed two alternative methods by adjusting marginal capital-related customer cost derived by the Rental method: Adjusted Rental Method 1 (ARM1) and Adjusted Rental Method 2 (ARM2).<sup>40</sup>

As a conceptual matter, underlying the proposed Adjusted Rental methods, and the notion that they would produce legitimate marginal capital cost, renowned Economist Alfred Kahn was quoted as a supporting source. The quote states in part, “. . . marginal cost is the cost of producing one more unit; it can equally be envisaged as the cost that will be saved by producing one less unit.”<sup>41</sup> This quote was applied in the context of marginal customer related cost as “. . . marginal cost is the cost of connecting one more customer; it can equally be envisaged as the cost that would be saved by connecting one fewer customer.”<sup>42</sup> This application of Dr. Kahn’s quote leads to the belief that neither the Rental nor the NCO method satisfied the basic symmetry property of marginal cost in that “[t]he cost of a new hookup (embodied in both methods) is not the same as the cost saved due to a permanent loss of an existing customer hookup.”<sup>43</sup>

The rationale appears to be that since the cost of a new hookup is not the same as the cost saved due to a permanent loss of an existing customer, and the fact that both Rental and NCO methods rely on new hookup costs only, these methods are not appropriately calculating capital-related marginal customer costs. Accordingly, in such situations one must somehow include

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<sup>40</sup> The ARM1 and ARM2 methods are being addressed here because I am providing an illustrative analysis guided by the directives articulated by the Commission in D.17-09-035 for electric utilities should they propose a fixed customer charge. I am not suggesting that Energy Division is a party to this TCAP or that ARM1 and ARM2 methods are being proposed in this proceeding.

<sup>41</sup> See Energy Division Staff Proposal on Adjusted Rental Method for Marginal Customer Cost in PG&E GRC Phase 2 (A.16-06-013) Second Fixed Cost Workshop (November 2, 2016), Appendix B at 2, available at: <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M170/K336/170336343.PDF>.

<sup>42</sup> *Id.*

<sup>43</sup> *Id.* at 6.

both the cost of new hookup and the cost saved due to a permanent loss of an existing customer to derive appropriate capital-related customer cost.

In fact, Dr. Kahn does not discuss any such symmetry property of marginal cost. To provide the proper context of Dr. Kahn's discussion of marginal cost, I provide from Dr. Kahn's book the expanded quote:

. . . marginal cost is the cost of producing one more unit; it can equally be envisaged as the cost that would be saved by producing one less unit. Looked at the first way, it may termed incremental cost—the added cost of (a small amount of) incremental output. Observed the second way, it is synonymous with avoidable cost—the cost that would be saved by (slightly) reducing output. (Although these three terms are often used synonymously, marginal cost, strictly speaking, refers to the additional cost of supplying a single, infinitesimally small additional unit, while “incremental” and “avoidable” are sometimes used to refer to the average additional cost of a finite and possibly a large change in production or sales.) Why does the economist argue that, ideally, every buyer ought to pay a price equal to the cost of supplying one incremental unit?<sup>44</sup>

Clearly, Dr. Kahn does not state or imply that the cost of producing one more unit must equal the cost that would be saved by producing one less unit. The last sentence in the quote is consistent the with definition of capital-related customer cost as the capital cost of one additional hookup. The cost of providing access to an additional customer will be different than the cost saved due to removing access to an existing customer.

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<sup>44</sup> Kahn, Alfred E., *The Economics of Regulation, Principles and Institutions*, The MIT Press, Cambridge, Massachusetts and London, England, 1988, at 65-66.

Mathematically, I attempt to show why ARM1 and ARM2 would not produce a true marginal cost result.

**i. ARM1**

ARM1 is mathematically depicted as follows:

$$ARM1\ MCAC = r1 * Rental\ MCAC \quad (1)$$

Where,<sup>45</sup>

$$r1 = \frac{TSM\ rate\ base\ value}{TSM\ replacement\ cost\ new\ value}$$

The ARM1 method adjusts the Rental capital-related marginal customer cost downward by an adjustment factor (r1) which is the ratio of system-wide TSM rate base value to all TSM (existing and new) valued at the Rental method capital-related marginal customer cost. Energy Division proposed this adjustment factor to be at the system level; however, at least conceptually, it is more appropriate to develop this adjustment factor using residential TSMs only since our focus here is on residential TSM marginal cost. For the analysis below, I assume that the adjustment factor is based on residential TSMs only, not system-wide TSMs. The Rental MCAC in the equation (1) above can be rewritten as:

$$Rental\ MCAC = TSM\ replacement\ cost\ new\ value * \left( \frac{RECC}{All\ residential\ customers} \right) \quad (2)$$

Plugging in this expression for Rental MCAC into ARM1 in equation (1) above result in:

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<sup>45</sup> MCAC is the capital-related component of marginal customer access cost, r1 is a system value and not customer-class specific, TSM is final line transformer, service drop and meter, replacement cost new value is the rental calculation (before RECC is applied) summed over all the Utilities' customers, and RECC is real economic carrying cost. Note: O&M are added after MCAC is calculated for both ARM1 MCAC and ARM2 MCAC.



$$ARM1 MCAC = \left( \frac{TSM \text{ rate base value}}{TSM \text{ replacement cost new value}} \right) * TSM \text{ replacement cost new value} \\ * \left( \frac{RECC}{All \text{ residential customers}} \right) \quad (3)$$

Cancelling the TSM replacement cost new value in the numerator and the denominator in equation (3) leads to:

$$ARM1 MCAC = TSM \text{ ratebase value} * \frac{RECC}{All \text{ residential customers}} \quad (4)$$

ARM1 is supposed to reflect an adjustment to new connection cost under the Rental method with the adjustment being “correction” to the Rental method for violating the “basic symmetry property” of marginal cost. However, equation (4) shows that ARM1 new connection cost does not depend on new connection cost at all; rather, it depends on the rate base value of residential TSMs attributable to all past customer hookups. ARM1, therefore, is a backward-looking embedded cost method, not a forward-looking marginal cost method. In D.17-09-035, the Commission made it clear that new connection costs are forward-looking.<sup>46</sup>

## ii. ARM2

ARM2 is mathematically depicted as follows:

$$ARM2 MCAC = r2 * Rental MCAC \quad (5)$$

where,

$$r2 = \frac{TSM \text{ replacement cost new value less depreciation}}{TSM \text{ replacement cost new value}},$$

The ARM2 method adjusts the Rental capital-related marginal customer cost downward by an adjustment factor (r2) which is the ratio of TSM replacement cost new value less

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<sup>46</sup> See D.17-09-035 at 17, Table 1.

depreciation to TSM replacement cost new value. Again, this adjustment factor is proposed to be at the system level. As with ARM1, it is more appropriate to develop this adjustment factor using residential TSMs only since our focus here is on residential TSM marginal cost. Using similar steps described for ARM1 above, the ARM2 can be rewritten, assuming the r2 adjustment factor should be based on residential TSMs, not system-wide TSMs, as follows:

$$\begin{aligned}
 \text{ARM2 MCAC} &= \text{TSM replacement cost new less depreciation} \\
 &\quad * \frac{\text{RECC}}{\text{All residential customers}} \qquad (6)
 \end{aligned}$$

While ARM2 still requires the calculation of Rental capital-related marginal customer cost, lowering this marginal cost by an adjustment representing depreciation costs attributable to all past customer hookups violates the concept that new connection cost should be forward-looking.

As discussed above, the proposed adjustment to Rental method-based new connection cost to retain the so-called basic symmetry property of marginal cost is unsupported. Additionally, as demonstrated above, ARM1 simply depends on backward-looking rate base value, and, hence, an embedded cost method. By adjusting Rental method-based new connection cost using backward-looking depreciation, ARM2 does not portray a forward-looking concept of marginal cost. Therefore, if the Commission is seeking a true marginal cost, the Adjusted Rental methods would not produce this result.