Exhibit No.:	
Application:	A.22-09-015
Witness:	Michael Foster
Chapter:	13b

PREPARED DIRECT TESTIMORNY OF

MICHAEL FOSTER

ON BEHALF OF SOUTHERN CALIFORNIA GAS COMPANY

AND SAN DIEGO GAS & ELECTRIC COMPANY

(RATE DESIGN)

September 30, 2022 (Errata dated August 31, 2023)

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1	CHAPTER 13
2	PREPARED DIRECT TESTIMONY OF MICHAEL FOSTER
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 ¹ 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 8a), and Marjorie Schmidt-Pines (Chapters 9b and 10b Applicants' demand forecast
13	proposals are consolidated by witness Wei Bin Guo (Chapter 5b). My testimony also
14	incorporates the recommendations provided by witness Nathaniel Taylor (Chapter 14a). Finally,
15	to be consistent with the CPUC-adopted four-year general rate cycle (GRC), starting with this
16	cost allocation proceeding, Applicants propose a four-year cost allocation proceeding (CAP)
17	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,² along with

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

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

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

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B. Non-Margin Cost Allocation and Rate Design Proposals

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

My testimony incorporates the following rate design and non-margin cost allocation 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) ⁵ ;

³ 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.

⁴ 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.

⁵ 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. Illust	rative 2024 Rates
The allocated	I non-margin costs are added to the allocated base margin costs to derive the
allocated transportation	ion revenue requirement by customer class. The allocated transportation
revenue requirement	s by customer class become the starting point for the development of rates
for each customer cla	ass.
To be consist	ent with the CPUC-adopted four-year general rate cycle, starting with this
cost allocation proce	eding, Applicants propose a four-year CAP cycle. As such, Applicants have
used four-year avera	ge gas demand forecasts (2024 through 2027) for allocating costs across
customer classes, as	described in the testimonies of Marjorie Schmidt-Pines for SoCalGas and
SDG&E (Chapters 9	b and 10b. Likewise, for calculating rates proposed in this CAP, Applicants
have used four-year	average gas demand forecasts.
	(2) (3) (4) (5) (6) (6) (7) C. Illust (6) (7) C. Illust The allocated allocated transportation revenue requirement for each customer classes allocation proce used four-year avera customer classes, as SDG&E (Chapters 9) have used four-year a

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Table 1 and Table 2 below show, respectively, SoCalGas's and SDG&E's present classaverage transportation rates (as of March 1, 2022), illustrative 2023 rates, and the 2024 illustrative rates proposed in this proceeding.⁶ The rate changes between the present 2022 and 2024 proposed rates can best be explained as the sum of rate changes between the present and 2023 rates and rate changes between the 2023 and proposed 2024 rates.

Present 2022 rates reflect the cost allocation results and gas demand forecasts adopted in Applicants' 2020 TCAP decision. The 2023 rates represent the Commission-ordered⁷ updates to the 2020 TCAP cost allocation studies reflecting more recent historical costs since the 2020 TCAP.⁸ Applicants will implement the resulting updated rates on January 1, 2023. Proposed 2024 rates reflect a new set of updated cost studies and gas demand forecasts proposed in this CAP. Except for the updated cost studies, the 2023 rates are based on the same demand forecasts, base margins and regulatory account balances as in present rates. As discussed by witnesses Rose-Marie Payan (Chapter 3), Jeff Huang (Chapter 4) and Wei Bin Guo (Chapter 5b), the Applicants' gas demand forecast is generally declining for customer classes relative to the forecasts adopted in the 2020 TCAP. Applicants' 2024 proposed rates are derived using the present base margins and present regulatory account balances. Witness S. Nasim Ahmed

⁵ 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.

⁷ 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).

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

1 (Chapter 6a) and witness Jason Kupfersmid (Chapter 7) discuss, respectively, the current

2 regulatory account balances in their testimony.

Table 1 below shows SoCalGas's present class-average transportation rates (as of March

1, 2022), illustrative 2023 rates, and the 2024 illustrative rates proposed in this CAP.

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Table 1 – SoCalGas Natural Gas Transportation Rates (2022-2024)⁹

TABLE 1 Natural Gas Transportation Rates Southern California Gas Company January, 2024 Rates

0	8	2	8/	23	3	
	_				-	-

	TCAP 1/1/2024												
		Pres	ent Rates		Prop	oosed Rates		Prop	oosed Rates				
		Mar-1-22	Proposed	Mar-1-22	Jan-1-23	Proposed	Jan-1-23	Jan-1-24	Proposed	Jan-1-24			
		Volumes	Rate	Revenues	Volumes	Rate	Revenues	Volumes	Rate	Revenues			
		Mth	\$/therm	\$000's	Mth	\$/therm	\$000's	Mth	\$/therm	\$000's			
1	CORE												
2	Residential	2,346,353	\$1.09046	\$2,558,598	2,346,353	\$1.02748	\$2,410,835	2,185,983	\$1.08535	\$2,372,561			
3	Commercial & Industrial	992,706	\$0.63128	\$626,673	992,706	\$0.60845	\$604,009	880,320	\$0.68958	\$607,049			
4	NGV - Post Sempra-Wide	178,769	\$0.35409	\$63,300	178,769	\$0.34973	\$62,521	167,083	\$0.43102	\$72,016			
5	Gas A/C	416	\$0.27022	\$112	416	\$0.27037	\$113	140	\$0.50262	\$71			
6	Gas Engine	22,302	\$0.25948	\$5,787	22,302	\$0.25950	\$5,787	19,830	\$0.26164	\$ 5, 1 88			
7	Total Core	3,540,545	\$0.91920	\$3,254,471	3,540,545	\$0.87084	\$3,083,265	3,253,356	\$0.93961	\$3,056,885			
8													
9	NONCORE COMMERCIAL & INDUSTRIAL												
10	Distribution Level Service	919,735	\$0.18162	\$167,045	919,735	\$0.18031	\$165,835	894,285	\$0.20081	\$179,577			
11	Transmission Level Service	626,080	\$0.03353	\$20,994	626,080	\$0.03979	\$24,911	750,680	\$0.05321	\$39,945			
12	Total Noncore C&I	1,545,814	\$0.12164	\$188,039	1,545,814	\$0.12340	\$190,746	1,644,965	\$0.13345	\$219,523			
13													
14	NONCORE ELECTRIC GENERATION												
15	Distribution Post Sempra Wide	331,442	\$0.15591	\$51,675	331,442	\$0.15697	\$52,026	335,280	\$0.18265	\$61,238			
16	Transmission Level Service	2,246,336	\$0.03273	\$73,532	2,246,336	\$0.03899	\$87,587	1,800,969	\$0.05234	\$94,260			
17	Total Electric Generation	2,577,778	\$0.04857	\$125,206	2,577,778	\$0.05416	\$139,613	2,136,249	\$0.07279	\$155,497			
18		0			28%								
19	TOTAL RETAIL NONCORE	4,123,593	\$0.07596	\$313,245	4,123,593	\$0.08011	\$330,359	3,781,214	\$0.09918	\$375,020			
20													
21	Total Wholesale Incl SDG&E	1,477,881	\$0.02916	\$43,099	1,477,881	\$0.03565	\$52,687	1,244,496	\$0.04736	\$58,944			
22										·			
23	TOTAL NONCORE	5,601,473	\$0.06362	\$356,344	5,601,473	\$0.06838	\$383,047	5,025,711	\$0.08635	\$433,964			
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	\$0.42165	\$3,490,849			
27	Backbone Transportation Service BTS	2,532	\$0.36798	\$340,120	2,532	\$0.53705	\$496,391	2,532	\$0.49936	\$461,557			
28	SYSTEM TOTAL w/BTS	9,142,019	\$0.43217	\$3,950,935	9,142,019	\$0.43346	\$3,962,703	8,279,067	\$0.47740	\$3,952,406			
29													
30	EOR Revenues	208,941	\$0.09427	\$19.696	208,941	\$0.09675	\$20.215	154.067	\$0,11233	\$17.306			
31	Total Throughput w/EOR Mth/vr	9 350 960		,	9 350 960		,	8 433 133	-	,			

⁹ 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		ges	2023	3 to 2024 Chan	ges	2022 to 2024 Changes		
				Rate			Rate			Rate
		Revenues	Rates	change	Revenues	Rates	change	Revenues	Rates	change
		\$000's	\$/therm	%	\$000's	\$/therm	%	\$000's	\$/therm	%
1	CORF									
2	Residential	(\$147 763)	(\$0.06298)	-5.8%	(\$38 274)	\$0.05787	5.6%	(\$186.037)	(\$0.00511)	-0.5%
3	Commercial & Industrial	(\$22,665)	(\$0.02283)	-3.6%	\$3.041	\$0.08113	13.3%	(\$19.624)	\$0.05830	9.2%
4	NGV - Post Sempra-Wide	(\$779)	(\$0.00436)	-1.2%	\$9,494	\$0.08129	23.2%	\$8,715	\$0.07693	21.7%
5										
5	Gas A/C	\$0	\$0.00015	0.1%	(\$42)	\$0.23225	85.9%	(\$42)	\$0.23240	86.0%
6	Gas Engine	\$1	\$0.00002	0.0%	(\$599)	\$0.00214	0.8%	(\$598)	\$0.00216	0.8%
7	Total Core	(\$171,206)	(\$0.04836)	-5.3%	(\$26,380)	\$0.06877	7.9%	(\$197,586)	\$0.02041	2.2%
8										
9	NONCORE COMMERCIAL & INDUSTRIAL									
10	Distribution Level Service	(\$1,210)	(\$0.00132)	-0.7%	\$13,742	\$0.02050	11.4%	\$12,532	\$0.01918	10.6%
11	Transmission Level Service	\$3,917	\$0.00626	18.7%	\$15,034	\$0.01342	33.7%	\$18,951	\$0.01968	58.7%
12	Total Noncore C&I	\$2,708	\$0.00175	1.4%	\$28,776	\$0.01006	8.1%	\$31,484	\$0.01181	9.7%
13										
14	NONCORE ELECTRIC GENERATION									
15	Distribution Post Sempra Wide	\$352	\$0.00106	0.7%	\$9,211	\$0.02568	16.4%	\$9,563	\$0.02674	17.1%
16	Transmission Level Service	\$14,055	\$0.00626	19.1%	\$6,673	\$0.01335	34.2%	\$20,728	\$0.01960	59.9%
17	Total Electric Generation	\$14,407	\$0.00559	11.5%	\$15,884	\$0.01863	34.4%	\$30,291	\$0.02422	49.9%
18										
19	TOTAL RETAIL NONCORE	\$17,114	\$0.00415	5.5%	\$44,660	\$0.01907	23.8%	\$61,775	\$0.02322	30.6%
20										
21	Total Wholesale Incl SDG&E	\$9,589	\$0.00649	22.2%	\$6,257	\$0.01171	32.9%	\$15,846	\$0.01820	62.4%
22										
23	TOTAL NONCORE	\$26,703	\$0.00477	7.5%	\$50,917	\$0.01797	26.3%	\$77,620	\$0.02273	35.7%
24										
25	Unbundled Storage									
26	System Total (w/o BTS)	(\$144,503)	(\$ 0.01581)	-4.0%	\$24,537	\$0.04249	11.2%	(\$119,966)	\$0.02668	6.8%
27	Backbone Transportation Service BTS	\$156,271	\$0.16907	45.9%	(\$34,834)	(\$0.03769)	-7.0%	\$121,437	\$0.13138	35.7%
28	SYSTEM TOTAL w/BTS	\$11,768	\$0.00129	0.3%	(\$10,297)	\$0.04394	10.1%	\$1,471	\$0.04522	10.5%
29										
30	EOR Revenues	\$519	\$0.00248	2.6%	(\$2,909)	\$0.01558	16.1%	(\$2,390)	\$0.01806	19.2%
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 decrease¹⁰ and noncore customers' rates will generally increase in 2023.¹¹ 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,

¹⁰ Except for Gas AC and Gas Engine customers.

¹¹ Except for noncore commercial and industrial customers with distribution level service.

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

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

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

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

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

TABLE 1 Natural Gas Transportation Rate Revenues San Diego Gas & Electric

			Jar	nuary, 2024 R	ates								
				08/28/23									
	TGAP 1/1/2024												
			Present Rate	s	Expected	Rates		At Proposed Rates					
		Mar-1-22	Average	Mar-1-22	Jan-1-23	Average	Jan-1-23	Jan-1-24	Average	Jan-1-24			
		Volumes	Rate	Revenues	Volumes	Rate	Revenues	Volumes	Rate	Revenues			
		mtherms	\$/therm	\$000's	mtherms	\$/therm	\$000's	mtherms	\$/therm	\$000's			
1	CORE												
2	Residential	313,234	\$1.47125	\$460,846	313,234	\$1.44510	\$452,655	270,604	\$1.70303	\$460,848			
3	Commercial & Industrial	194,777	\$0.61067	\$118,944	194,777	\$0.61090	\$118,990	178,913	\$0.64170	\$114,810			
4	NGV Post Sempra-Wide	24,129	\$0.35496	\$8,565	24,129	\$0.35058	\$8,459	23,179	\$0.38509	\$8,926			
5													
6	Total CORE	532,140	\$1.10564	\$588,355	532,140	\$1.09013	\$580,104	472,696	\$1.23670	\$584,583			
7													
8	NONCORE COMMERCIAL & INDUSTRIAL												
9	Distribution Level Service	29,376	\$0.16284	\$4,783	29,376	\$0.17509	\$5,143	35,337	\$0.20322	\$7,181			
10	Transmission Level Service	17,569	\$0.03423	\$601	17,569	\$0.04049	\$711	13,965	\$0.05651	\$789			
11	Total Noncore C&I	46,945	\$0.11471	\$5,385	46,945	\$0.12472	\$5,855	49,302	\$0.16166	\$7,970			
12													
13	NONCORE ELECTRIC GENERATION												
14	Distribution Level post SW	68,867	\$0.17756	\$12,228	68,867	\$0.17808	\$12,264	71,656	\$0.20888	\$14,968			
15	Transmission Level Service	461,363	\$0.02990	\$13,795	461,363	\$0.03616	\$16,681	225,945	\$0.04975	\$11,241			
16	Total Electric Generation	530,230	\$0.04908	\$26,023	530,230	\$0.05459	\$28,945	297,600	\$0.08807	\$26,209			
17													
18	TOTAL NONCORE	577,175	\$0.05442	\$31,408	577,175	\$0.06029	\$34,800	346,902	\$0.09853	\$34,179			
19													
20	SYSTEM TOTAL	1,109,315	\$0.55869	\$619,763	1,109,315	\$0.55431	\$614,904	819,598	\$0.75496	\$618,762			

	202	2 to 2023 Chan	ges	2023	3 to 2024 Char	nges	2022 to 2024 Changes		
			Rate			Rate			Rate
	Revenues	Rates	change	Revenues	Rates	change	Revenues	Rates	change
	\$000's	\$/therm	%	\$000's	\$/therm	%	\$000's	\$/therm	%
CORE									
Residential	(\$8,191)	(\$0.02615)	-1.8%	\$8,193	\$0.25794	17.8%	\$1	\$0.23178	15.8%
Commercial & Industrial	\$46	\$0.00024	0.0%	(\$4,180)	\$0.03080	5.0%	(\$4,135)	\$0.03104	5.1%
NGV Post Sempra-Wide	(\$106)	(\$0.00438)	-1.2%	\$467	\$0.03451	9.8%	\$361	\$0.03013	8.5%
Total CORE	(\$8,251)	(\$0.01551)	-1.4%	\$4,479	\$0.14657	13.4%	(\$3,772)	\$0.13106	11.9%
NONCORE COMMERCIAL & INDUSTRIAL									
Distribution Level Service	\$360	\$0.01225	7.5%	\$2,038	\$0.02813	16.1%	\$2,398	\$0.04038	24.8%
Transmission Level Service	\$110	\$0.00626	18.3%	\$78	\$0.01602	39.6%	\$188	\$0.02228	65.1%
Total Noncore C&I	\$470	\$0.01001	8.7%	\$2,116	\$0.03695	29.6%	\$2,585	\$0.04696	40.9%
NONCORE ELECTRIC GENERATION									
Distribution Level Service									
Transmission Level Service	\$2,887	\$0.00626	20.9%	(\$5,440)	\$0.01360	37.6%	(\$2,553)	\$0.01985	66.4%
Total Electric Generation	\$2,922	\$0.00551	11.2%	(\$2,736)	\$0.03348	61.3%	\$186	\$0.03899	79.4%
TOTAL NONCORE	\$3,392	\$0.00588	10.8%	(\$621)	\$0.03823	63.4%	\$2,772	\$0.04411	81.1%
	(\$4,850)	(\$0.00438)	-0.8%	\$3.850	\$0.20065	36.2%	(\$1,000)	\$0 19627	35 1%

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, ¹³ 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 rates.
9	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.

¹³ Except for core commercial and industrial customers.

As explained in Frank Seres' testimony (Chapter 8a), 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.

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Table 3 – SoCalGas Natural Gas Transportation Rates (2025-2027)¹⁴

		Prop	osed Rates		Prop	osed 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	Е	F	D	Е	F	D	Е	F
1	CORE									
2	Residential	2,185,983	\$1.08452	\$2,370,738	2,185,983	\$1.08092	\$2,362,877	2,185,983	\$1.07665	\$2,353,533
3	Commercial & Industrial	880,320	\$0.68919	\$606,708	880,320	\$0.68763	\$605,332	880,320	\$0.68577	\$603,697
4	NGV - Post Sempra-Wide	167,083	\$0.43100	\$72,012	167,083	\$0.43117	\$72,041	167,083	\$0.43138	\$72,076
5										
6	Gas A/C	140	\$0.50235	\$71	140	\$0.50130	\$70	140	\$0.50005	\$70
7	Gas Engine	19,830	\$0.26164	\$5,188	19,830	\$0.26164	\$5,188	19,830	\$0.26165	\$5,188
8	Total Core	3,253,356	\$0.93894	\$3,054,716	3,253,356	\$0.93611	\$3,045,509	3,253,356	\$0.93275	\$3,034,565
9										
10	NONCORE COMMERCIAL & INDUSTRIAL									
11	Distribution Level Service	894,285	\$0.20079	\$179,567	894,285	\$0.20093	\$179,692	894,285	\$0.20110	\$179,841
12	Transmission Level Service	750,680	\$0.05331	\$40,017	750,680	\$0.05400	\$40,539	750,680	\$0.05483	\$41,161
13	Total Noncore C&I	1,644,965	\$0.13349	\$219,583	1,644,965	\$0.13388	\$220,231	1,644,965	\$0.13435	\$221,002
14										
15	NONCORE ELECTRIC GENERATION									
16	Distribution Post Sempra Wide	335,280	\$0.18265	\$61,240	335,280	\$0.18290	\$61,322	335,280	\$0.18319	\$61,420
17	Transmission Level Service	1,800,969	\$0.05243	\$94,431	1,800,969	\$0.05313	\$95,684	1,800,969	\$0.05396	\$97,176
18	Total Electric Generation	2,136,249	\$0.07287	\$155,671	2,136,249	\$0.07350	\$157,006	2,136,249	\$0.07424	\$158,597
19										
20	TOTAL RETAIL NONCORE	3,781,214	\$0.09924	\$375,254	3,781,214	\$0.09977	\$377,237	3,781,214	\$0.10039	\$379,599
21										
22	Total Wholesale Incl SDG&E	1,244,496	\$0.04745	\$59,057	1,244,496	\$0.04818	\$59,957	1,244,496	\$0.04905	\$61,038
23										
24	TOTAL NONCORE	5,025,711	\$0.08642	\$434,311	5,025,711	\$0.08699	\$437,193	5,025,711	\$0.08768	\$440,637
25										
26	Unbundled Storage			\$0			\$0			<mark>\$0</mark>
27	System Total (w/o BTS)	8,279,067	\$0.42143	\$3,489,028	8,279,067	\$0.42066	\$3,482,703	8,279,067	\$0.41976	\$3,475,202
28	Backbone Transportation Service BTS	2,532	\$0.50156	\$463,589	2,532	\$0.50940	\$470,835	2,532	\$0.51872	\$479,451
29	SYSTEM TOTAL w/BTS	8,279,067	\$0.47742	\$3,952,617	8,279,067	\$0.47753	\$3,953,538	8,279,067	\$0.47767	\$3,954,653
30										
31	EOR Revenues	154,067	\$0.11236	\$17,311	154,067	\$0.11273	\$17,368	154,067	\$0.11318	\$17,437
32	Total Throughput w/EOR Mth/yr	8,433,133			8,433,133			8,433,133		

¹⁴ 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 higher share of customer-related and distribution costs but a lower share of transmission and 8 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.

Table 4 shows the 2025, 2026 and 2027 illustrative class-average transportation rates forSDG&E resulting from escalation of transmission and storage costs for attrition year base marginincreases.

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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 Rate Revenues Volumes Rate Revenues Volumes Rate Revenues mtherms \$/therm \$000's mtherms \$/therm \$000's mtherms \$/therm \$000's D Е F D Е F D Е F CORE 1 2 Residential 270.604 \$1,70248 \$460.698 270.604 \$1,70030 \$460,108 270.604 \$1,69767 \$459.397 3 Commercial & Industrial 178,913 \$0.64172 \$114,812 178.913 \$0.64220 \$114,898 178,913 \$0.64278 \$115.001 4 NGV Post Sempra-Wide 23,179 \$0.38507 \$8,925 23,179 \$0.38525 \$8.929 23,179 \$0.38546 \$8,934 5 6 Total CORE 472,696 \$1.23639 \$584,435 \$1.23533 \$583.935 472,696 \$1.23406 472,696 \$583.333 7 8 NONCORE COMMERCIAL & INDUSTRIAL 9 35 337 \$7 185 Distribution Level Service \$0 20334 35 337 \$0.20427 \$7.218 35.337 \$0 20536 \$7 257 10 Transmission Level Service 13,965 \$0.05661 \$790 13,965 \$0.05730 \$800 13,965 \$0.05813 \$812 11 Total Noncore C&I 49,302 \$0.16178 \$7,976 49,302 \$0.16264 \$8,018 49,302 \$0.16366 \$8,069 12 13 NONCORE ELECTRIC GENERATION 14 Distribution Level post SW 71 656 \$0 20888 \$14,968 71 656 \$0 20909 \$14,983 71 656 \$0 20934 \$15,001 15 225,945 \$0.04985 \$11,263 225,945 \$0.05054 \$11,420 225,945 \$0.05137 \$11,607 Transmission Level Service 16 Total Electric Generation 297,600 \$0.08814 \$26,230 297,600 \$0.08872 \$26,403 297,600 \$0.08941 \$26,608 17 18 TOTAL NONCORE 346.902 \$0.09860 \$34.206 346,902 \$0.09922 \$34,421 346,902 \$0.09996 \$34.676 19 20 SYSTEM TOTAL 819,598 \$0.75481 \$618,641 819,598 \$0.75446 \$618,356 \$0.75404 \$618,009 819,598

Table 4 – SDG&E Natural Gas Transportation Rates (2025-2027)¹⁵

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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

¹⁵ 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.

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

II. CORE RATE DESIGN

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

A. Residential Rates

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

¹⁶ 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.

For SDG&E, the current residential rate structure consists of a two-tiered volumetric rate, baseline and non-baseline, with an approximately \$4 per customer per month¹⁷ minimum bill.¹⁸ 1. SoCalGas Proposes to Phase-in an Increased Residential Fixed **Customer Charge and Establish a Two-Tier Structure** SoCalGas proposes to implement residential non-CARE fixed customer charge increases in a phased-in approach over the CAP horizon: retain the \$5 customer charge in 2024; increase it from \$5 to \$10 in 2025; from \$10 to \$15 in 2026; and from \$15 to \$20 in 2027.¹⁹ In the 2020 TCAP decision, the Commission did not adopt SoCalGas's recommendation to increase its non-CARE fixed customer charge to \$10 per month.²⁰ In doing so, however, the Commission found that SoCalGas's showing complied with the guidelines adopted in the D.17-09-035.²¹ In D.17-09-035, the Commission made several key determinations which provided prescriptive guidance on how electric utilities should calculate and present fixed customer charge proposals. Notably, that guidance applies to establishing *new* fixed customer charges for *electric* utilities, while SoCalGas, a gas-only utility, already has a fixed customer charge. Nonetheless, in this application, SoCalGas's fixed customer charge proposal adheres to the same guidelines,

²¹ *Id.* at 94 (Findings of Fact (FOF) 82).

¹⁷ 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 perday 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.

¹⁸ 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.

¹⁹ As with SoCalGas's current tariffs, this charge would be implemented as per-meter per-day charge.

²⁰ D.20-02-045 at 100 (Conclusions of Law (COL) 36).

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

In the 2020 TCAP decision, the Commission gave two primary reasons for not authorizing SoCalGas to increase its residential fixed customer charge: (i) that the thenupcoming Gas Planning Rulemaking proceeding (R.20-01-007) would be the appropriate proceeding to address residential fixed customer charges and (ii) the affordability of bill impacts attributable to Applicants' fixed customer charge proposal was in question. I address these 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 fixed monthly charge."²² While Track 1 of the Gas Planning rulemaking proceeding has 12 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.

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

²² *Id.* at 95 (FOF 89).

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not meet the objective of affordability."23 SoCalGas has modified its residential fixed customer 1 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.

²³ *Id.* at 94 (FOF 83).

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Table 5: Current and Proposed Residential Fixed Customer

	Non-CARE Fixed customer charge \$/month	n-CARE CARE Fixed cus d customer cl ge \$/month charge \$/month Aft Di \$/r		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	\$0.79239	\$1.21834	\$0.63391	\$0.97467
2025	\$10	\$6.25	\$5	\$0.59656	\$1.21745	\$0.47724	\$0.97396
2026	\$15	\$9.375	\$7.50	\$0.37238	\$1.21357	\$0.29791	\$0.97085
2027	\$20	\$12.50	\$10	\$0.15295	\$1.20895	\$0.12236	\$0.96716

Charge and Volumetric Rates

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There is an additional impetus for the Commission to grant SoCalGas its proposed twotier 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 incomegraduated 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.

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

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

²⁴ 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 To highlight the importance of setting the appropriate level of residential fixed charge 2 now to mitigate the bill impacts for remaining low-income customers in the distant future (say, in 3 2035), SoCalGas conducted a hypothetical analysis assuming a partial electrification scenario. 4 In this scenario, SoCalGas assumed that by 2035, SoCalGas would lose 50% of residential gas 5 load and 10% of residential customers to electrification. It may be reasonable to assume that 6 major gas appliances, such as, space and water heating would be replaced with electric versions; 7 however, the majority of current gas customers could retain gas service for lifestyle appliances, 8 such as, gas ranges and fireplaces. SoCalGas assumed that low-income CARE customers are 9 less likely to replace gas appliances with electric appliances due to budget constraints, making 10 CARE customers relatively high gas usage customers in 2035. SoCalGas also assumed that 11 SoCalGas's residential customers' share of revenue requirement would remain at the current 12 2022 level. Under these assumptions, SoCalGas estimated the impacts of a \$4 and a \$16 per 13 month CARE fixed customer charge (representing a 20% CARE discount under the current 14 residential rate design method) on an average-usage residential CARE customer's bill now 15 (current usage and customer counts) and in 2035 (50% gas load and 10% customer count 16 reduction) as shown in Chart 1 below.



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

2 3 4 5 m 6 In 7 hi 8 H 9 \$` 10 fi: 11 m 12 \$' 13 lc

Chart 1 shows that for an average-usage CARE customer, the introduction of higher fixed customer charge of \$16 per month (and lower volumetric rates) would increase the average monthly gas bill from \$33.79 to \$34.26 and decrease the January gas bill from \$70.46 to \$57.81. In the distant future, due to declining load and customer counts, the monthly gas bill would be higher under both the \$4 and the \$16 per month residential CARE fixed customer charges. However, Chart 1 shows that in the distant future average monthly bill would be lower under the \$16 per month fixed customer charge (\$41.77 per month versus \$50.53 per month under the \$4 fixed customer charge in January (\$68.38 per month versus \$100.94 per month under the \$4 fixed customer charge). In the distant future, with higher cost-based fixed customer charge, low usage customer charge). In the distant future, with higher cost-based fixed customer charge, low usage customer charge) presumably non-CARE customers with lifestyle gas appliances

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

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

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

3. Alternative Methods to Calculate Marginal Customer Connection Cost

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

²⁵ 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. ²⁶ 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. ²⁷

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

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Table 6: SoCalGas's Residential Minimum Connection Cost Per Month ²⁹								
	Rental Method	NCO Method	Adjusted Rental Method 1	Adjusted Rental Method 2				
	\$22.69	\$19.68	\$13.73	\$20.68				

²⁶ 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).

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

²⁸ 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.

²⁹ Source: witness Schmidt-Pines' (Chapter 9b) workpapers.

Table 7: SDG&E's Residential Minimum Connection Cost Per Month ³⁰									
	Rental Method	NCO Method	Adjusted Rental Method 1	Adjusted Rental Method 2					
	\$17.76	\$24.01	\$6.99	\$14.72					

As shown in Table 6, even the minimum estimates of the range of estimated customerrelated 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.

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4. Residential Bill Impacts of SoCalGas's Proposals

Table 8 below shows the 2024 through 2027 residential bills for non-CARE and CAREcustomers consistent with SoCalGas's proposals in this proceeding. Unlike prior cost allocationproceedings, SoCalGas is seeking Commission's approval for increasing residential customercharge 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.

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Table 8 – SoCalGas Average Residential Bills

	Average	Average Monthly Bills						
SCG Residential Bill (Zone 1)	Therms/Month	2022	2024	2025	2026	2027		
non-CARE Monthly Average	36	\$56.08	\$55.60	\$55.59	\$54.91	\$54.35		
CARE Monthly Average	27	\$32.15	\$31.79	\$32.18	\$32.06	\$32.03		

³⁰ Source: witness Foster's (Chapter 10b) workpapers.

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

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

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

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



Chart 2: Illustrative SoCalGas Annual Bill Impacts

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 2025, 2026 and 2027 versus the status quo \$4 per month fixed customer charge. A positive monthly bill impact value reflects that the monthly bill will increase under the proposed fixed customer charge

relative to the status quo \$4 per month CARE residential fixed customer charge. Similarly, a
 negative monthly bill impact value reflects that the monthly bill will decrease under the proposed
 fixed customer charge relative to the status quo \$4 per month fixed customer charge.

4 In response to the 2020 TCAP decision's finding regarding low-income customer 5 affordability, as discussed earlier, in this proceeding, SoCalGas proposes to establish a separate, 6 lower CARE fixed customer charge that, when taking into account the 20% CARE discount, will 7 be effectively 50% below the non-CARE fixed customer charge. For low gas usage (10th 8 percentile) CARE customers, Chart 2 shows that the 2025 monthly bills under the proposed \$5 9 per month CARE fixed customer charge (\$10 for non-CARE customers) is expected to remain 10 virtually the same as under the status quo \$4 per month CARE fixed customer charge (\$5 for 11 non-CARE customers) due to the introduction of the two-tier fixed customer charge. The 2026 12 average monthly bill under \$7.5 per month CARE fixed customer charge (\$15 for non-CARE 13 customers) is expected to increase by \$1.61 per month. The 2027 average monthly bill under 14 \$10 per month CARE fixed customer charge (\$20 for non-CARE customers) is expected to 15 increase by \$3.12 per month.

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

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6. Residential Bill Impacts of SDG&E's CAP Proposals

Table 9 below shows the 2024 through 2027 residential bills for non-CARE and CAREcustomers consistent with SDG&E's proposals in this proceeding. Unlike prior cost allocation

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proceedings, SDG&E is seeking Commission's approval for escalating embedded transmission
 costs over the CAP horizon. As such, SDG&E is showing residential bill impacts for all the
 years spanning this CAP.

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`	Average	Average Monthly Bills						
SDG&E Residential	Therms/Month	2022	2024	2025	2026	2027		
non-CARE Monthly Average	24	\$47.23	\$52.61	\$52.60	\$52.57	\$52.53		
CARE Monthly Average	20	\$30.02	\$33.53	\$33.53	\$33.50	\$33.48		

Table 9 – SDG&E Average Residential Bills

Table 9 shows that for both SDG&E CARE and non-CARE customers average monthly bill will increase between 2022 and 2024, primarily due to the significant increase in residential transportation rates in 2024 as shown in Table 2. SDG&E's residential bills remain essentially the same in the subsequent years 2025, 2026 and 2027.

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7. Implementation of SoCalGas's Phased-in Two-Tier Residential Fixed Customer Charge Proposal

11 As shown in Table 5 above, SoCalGas proposes, beginning in 2025, to increase the 12 residential fixed customer charge and to establish a two-tier structure, which will necessarily 13 require billing modifications. In SoCalGas's General Rate Case proceeding (A.22-05-015), 14 SoCalGas has proposed to replace its legacy Customer Information System (CIS) with a new, 15 modern billing platform. If SoCalGas's CIS proposal is adopted in the GRC, SoCalGas will be 16 required to establish a "freeze" period, whereby changes to the legacy CIS can no longer be 17 made. At this time, that freeze period is anticipated to begin around January 2025. SoCalGas 18 currently estimates the two-tier residential fixed customer charge proposal in this proceeding can 19 be implemented in approximately six months. Accordingly, so long as a decision is issued in this 20 proceeding before April 1, 2024, SoCalGas anticipates being able to complete the necessary 21 billing upgrades before the CIS freeze. If the decision is issued after April 1, 2024, SoCalGas 22 will need to adjust the implementation phase-in to account for any identified freeze period, and

will likely incorporate the change in the new CIS solution, anticipated for 2026. Alternatively, if
the Commission adopts modifications to the residential rate design that differ from those
presented in my testimony, SoCalGas will need to analyze the impacts of the adopted solution to
determine the appropriate implementation schedule. Either way, to be sure, SoCalGas will not
implement an increased residential fixed customer charge without the corresponding ability to
implement the two-tier structure.

B. Submeter Credit

Submeter credits apply to utility customers with a master meter who provide gas service to residential sub-units (*e.g.*, multi-family dwelling units and mobile home parks). D.04-04-043 established a method for calculating submeter credits. In that decision, certain categories of costs were defined as "Utility Avoided Costs"--the costs that utilities avoid for which a master meter customer is reimbursed through the submeter credit provided by the utility.³² In this proceeding, the Applicants' proposed submeter credits are based on updated studies in compliance with the methodology set forth in D.04-04-043, and as was used most recently to update the submeter credits in the 2020 TCAP approved by D.20-02-045. Currently, SoCalGas's submeter credit is set at \$0.28800 /meter/day and SoCalGas proposes to set it at \$0.33370/meter/day for 2024. With residential customer charge increasing in 2025, 2026 and 2027, the submeter credits in these years will be \$0.16866, \$0.0 and \$0.0, respectively.³³

³² 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.

³³ 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.

SDG&E's submeter credits are currently set at \$0.58060/meter/day for multi-family (GS) customers and \$0.60099/meter/day for mobile home (GT) customers. SDG&E proposes to set them at \$0.82192/meter/day and \$0.84855/meter/day, respectively, for this CAP term. C. **Core C&I Rates** SoCalGas and SDG&E each have a single tariff serving its core commercial and industrial (C&I) customers, Schedule G-10 for SoCalGas and Schedule GN-3 for SDG&E. Presently, SoCalGas's G-10 rate design consists of a \$15 customer charge and three tiers of declining block volumetric rates. SDG&E's GN-3 rate design consists of a \$10 customer charge and three tiers of declining block volumetric rates. 10 In D.20-02-045, the Commission retained the current rate structure for the different tiers within SoCalGas's G-10 rate design and SDG&E's GN-3 rate design. Neither SoCalGas nor SDG&E proposes any changes to the current methodology. D. Natural Gas Vehicle (NGV) Compression Rate Adder 14 A compression surcharge or compression rate adder is intended to cover the cost of providing compressed natural gas (CNG) to motor vehicles fueling at public access CNG vehicle

refueling stations owned and operated by Applicants. The compression rate adder is charged to customers on a volumetric basis. This adder is incremental to the uncompressed commodity charge and transportation charge. The compression rate adder reflects the capital and operating costs of compressing the natural gas and providing public access to CNG fuel for NGV owners. Additional state fuel tax, federal excise tax, and utility user taxes, which can vary by location, are

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also charged to customers. Currently, there is a Sempra California Utilities-wide³⁴ compression

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.

rate adder across both SoCalGas and SDG&E. Therefore, the compression rate adders for
 SoCalGas and SDG&E are nearly identical, with only a small difference due to differences in the
 Franchise Fees and Uncollectibles between the utilities.

4 In this CAP, Applicants have updated the NGV compression rate adders to reflect current 5 costs. These costs are composed of a capital-related revenue requirement for public-access 6 refueling equipment and a fully-loaded O&M-related revenue requirement. The Sempra 7 California Utilities-wide NGV compression rate adder is derived by dividing the combined 8 SoCalGas and SDG&E compression cost revenue requirements by the combined demand forecast for compressed NGV volumes.³⁵ The resulting NGV compression rate adders proposed 9 10 for this TCAP term are \$0.91453 per therm and \$0.92010 per therm for SoCalGas and SDG&E, 11 respectively.

12 III. N

NONCORE RATE DESIGN

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A. Noncore Distribution Rates

Applicants' current distribution-level services for noncore C&I and electric generation (EG) customers are provided under Schedule GT-NC for SoCalGas and Schedules GTNC and EG for SDG&E. The current noncore C&I rate design consists of a customer charge of \$350 per month for both the utilities, four tiers of declining block volumetric rates for SoCalGas and a single tier volumetric rate for SDG&E. For EG customers, there are Sempra California Utilitieswide rates; small EG customers pay a \$50 customer charge and a volumetric rate, and large EG customers pay a lower volumetric rate. Neither SoCalGas nor SDG&E proposes any changes to the current methodology.

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

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B. Transmission Level Service Rates

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

IV. OTHER PROPOSALS

A.

Updated Allocation of Self Generation Incentive Program (SGIP) Funds Based on Program Participation

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

Table 10: SoCalGas SGIP Cost Allocation SoCalGas SGIP Cost Allocation

Class	Recent 3 Ye	ear Total Incentives Paid	Proposed % Allocation	Current % Allocation
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%
Total		\$26,900,409	100.0%	100.0%

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

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B. **New Regulatory Accounts**

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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.

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San Joaquin Valley Disadvantaged Communities Balancing Account (SJVDACBA)

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

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) ³⁶ 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) ³⁷ 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.

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This concludes my prepared direct testimony.

³⁶ Under EPAM method, each customer class pays its share of authorized margin.

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

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V.

QUALIFICATIONS

My name is Michael Foster. My business address is 555 West Fifth Street, Los Angeles, California, 90013-1011.

4 I am employed by SoCalGas as the Rate Design and Demand Forecasting Manager within the CPUC/Federal Energy Regulatory Commission (FERC) Gas Regulatory Affairs Department, which supports gas regulatory activities of both SoCalGas and SDG&E. I have been employed with the Companies since December 2001. I have held my current position managing the rates and demand forecasting groups since February 2023. Previously, I held various positions of increasing responsibility, most recently as a Principal Economic Advisor for the gas Rate Design function for both SoCalGas and SDG&E, from December 2016 through February 2023.

I received a Bachelor of Arts degree in Economics from the University of California, Santa Barbara in 1995 and a Master of Business Administration degree from the Darden School of Business at the University of Virginia in 2000.

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I have previously testified before the Commission.

APPENDIX A

TABLE 1 Natural Gas Transportation Rates Southern California Gas Company January, 2024 Rates 08/28/23 TCAP 1/1/2024

		Present Rates		Proposed Rates			Chai				
		Mar-1-22	Proposed	Mar-1-22	Jan-1-24	Proposed	Jan-1-24	Revenue	Rate	% Rate	L
		Volumes	Rate	Revenues	Volumes	Rate	Revenues	Change	Change	change	l
		Mth	\$/therm	\$000's	Mth	\$/therm	\$000's	\$000's	\$/therm	%	L
		D	E	F	D	E	F	G	H	1	h
1	CORE										t
2	Residential	2.346.353	\$1,09046	\$2,558,598	2,185,983	\$1.08535	\$2,372,561	(\$186.037)	(\$0.00511)	-0.5%	L
3	Commercial & Industrial	992 706	\$0 63128	\$626 673	880 320	\$0 68958	\$607 049	(\$19 624)	\$0.05830	9.2%	L
4								(***,****,			l
5	NGV - Pre Sempra-Wide	178 769	\$0.36605	\$65.438	167 083	\$0 44214	\$73 874	\$8 436	\$0 07609	20.8%	l
6	Sempra-Wide Adjustment	178 769	(\$0.01196)	(\$2,138)	167 083	(\$0.01112)	(\$1,858)	\$280	\$0.00084	-7.0%	L
7	NGV - Post Sempra-Wide	178 769	\$0.35409	\$63,300	167.083	\$0.43102	\$72.016	\$8,715	\$0.07693	21.7%	ł
8			\$ 0.00400	000,000	101,000	00.40102	012,010	00,710	0.01000	21.170	l
ğ	Gas A/C	416	\$0 27022	\$112	140	\$0.50262	\$71	(\$42)	\$0 23240	86.0%	l
10	Gas Engine	22 302	\$0.25948	\$5 787	19.830	\$0.26164	\$5,188	(\$598)	\$0.00216	0.8%	l
11	Total Core	3 540 545	\$0.91920	\$3 254 471	3 253 356	\$0.93961	\$3,056,885	(\$197,586)	\$0.02041	2.2%	ł
12		0,040,040	0.01020	00,204,471	0,200,000	\$0.00001	\$0,000,000	(\$157,500)	00.02041	2.270	ł
13	NONCORE COMMERCIAL & INDUSTRIAL										l
14	Distribution Level Service	919 735	\$0 18162	\$167.045	894 285	\$0.20081	\$179 577	\$12.532	\$0.01918	10.6%	l
15	Transmission Level Senice (2)	626 080	\$0.03353	\$20,994	750 680	\$0.05321	\$39.945	\$18 951	\$0.01968	58.7%	l
16	Total Noncore C&I	1 545 814	\$0.12164	\$188.039	1 644 965	\$0.13345	\$219 523	\$31,484	\$0.01181	9.7%	ł
17		1,545,014	0 .12104	0100,000	1,044,000	W 0.10040	\$210,020	\$51,404	00.01101	3.170	t
18	NONCORE ELECTRIC GENERATION										l
19	Distribution Level Service										l
20	Distribution Eever Octvice	331 //2	\$0 16782	\$55 623	335 280	\$0 10302	\$65.017	\$0.304	\$0.02610	15 6%	L
21	Somera Wide Adjustment	331 442	(\$0.01101)	(\$3,020	335,280	(\$0.01127)	(\$3,780)	\$169	\$0.02010	5.4%	l
21	Distribution Dest Semera Wide	221 442	C0 15501	(UJ, J4J) 001 075	225 280	C0.01121)	(\$3,700)	50.552	\$0.00004	17 10/	ł
22	Transmission Level Senios (2)	331,442	\$0.10001 ¢0.00070	\$51,075	1 900 060	\$0.10203	S01,230	\$3,505	50.02074	E0.09/	l
23	Tatal Electric Concertion	2,240,330	\$0.03273	\$13,332	1,000,303	50.03234	\$34,200 \$165,407	\$20,720	50.01500	40.09/	ł
24	Total Electric Generation	2,511,110	JU.040 57	3125,200	2,130,243	QU.01213	a155,437	\$30,231	30.02422	43.370	1
20		4 123 603	\$0.07596	\$313 246	3 781 214	\$0.00018	\$375.020	\$61 775	\$0.02322	30.6%	ł
20	TOTAL RETAIL NONCORE	4,123,333	40.07550	4J1J,240	3,701,214	40.03310	\$375,020	ψ01,775	QU.UZJZZ	30.076	ł
22											l
20	Whatesale Long Beach (2)	79.646	\$0.02959	¢0 077	91 703	C0 04966	\$4 643	CO 066	\$0.02095	72 29/	L
20	Wholesale Eurog Deach (2)	66 431	\$0.02055	\$2,277 \$1,900	74 695	\$0.04955 \$0.04955	\$4,545	\$2,200	\$0.02095	73.3%	l
21	Wholesale SwiG (2)	00,431	\$0.02055	\$1,300	97.040	\$0.04955 \$0.04955	\$3,700	\$1,001	\$0.02095	73.3%	l
20	International (2)	116 200	\$0.02055 ©0.02850	92,771	120,400	\$0.04955 \$0.04055	34,000 SC 011	92,037	\$0.02095 60.02005	73.3%	L
32	Tetel M/halaania 8 latamatianal	250,267	\$0.02059	\$3,320	139,490	\$0.04955 C0.04955	\$0,911	\$3,500	\$0.02095	73.3%	ł
24	CDCRE Whaterela	359,267	\$0.02059	\$10,273	402,910	\$0.04955 C0.04633	\$19,903	\$9,690	\$0.02095	13.3%	l
04 06	SDG&E Wholesale	1,110,014	\$0.02934 60.02016	\$32,020	041,570	\$0.04632 C0.0473C	\$30,902	30,100	50.01097	07.070	ł
20	Total Wholesale Incl SDG&E	1,477,001	\$0.02916	\$45,099	1,244,490	\$0.04736	\$20,944	\$15,040	\$0.01620	02.4%	ł
27		5 601 472	£0.06262	8256 244	5 005 711	20,000.22	£422.064	\$77.620	£0.02272	25 79/	ł
20	TOTAL NONCORE	5,001,475	40.00302	\$350,344	5,025,711	\$0.00035	\$433,304	\$11,020	30.02273	33.170	ł
30	Linbundled Storage (4)			50			\$0	\$0			l
40	Suctom Total (w/o BTS)	9 1/2 019	\$0.30407	\$3 610 816	8 279 067	\$0.42165	\$3 490 849	(\$110.066)	\$0.02668	6.8%	ł
40	Backhone Transportation Service BTS (3)	2 532	\$0.35457	\$3/0 120	2 532	\$0,42103	\$461 557	\$121 / 37	\$0.02000	35 7%	l
+1		2,332	0.30130	43 050 035	2,332	40.43330	\$2,052,400	\$121,431	\$0.04500	40.5%	ł
42	STSTEM TOTAL W/BTS	9,142,019	\$0.43217	\$3,900,935	8,219,067	\$0.47740	\$3,952,406	\$1,4/1	\$0.04522	10.5%	ł
43	FOR Revenue	200.044	E0 00407	E 10 COC	154.007	60 44000	647 200	(60.000)	60.01000	10.00/	l
44	EUK Revenues	200,941	φυ.υ9427	\$13,636	154,067	φυ. 11233	317,306	(\$2,390)	30.01806	19.2%	$\frac{1}{2}$
45	Total Inroughput W/EOR Mth/yr	1 9,350,960			0,433,133						1

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 (5/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.

			Resident	ial Transportat	ion Rates					
			Southern	California Gas	Company					
				08/28/23						
		TCAP 1/1/2024								
			Present Rates		Propos	sed Rates		Char	iges	
		Mar-1-22	Average	Mar-1-22	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	%
		Α	В	С	D	E	F	G	н	1
1	RESIDENTIAL SERVICE									
2	Customer Charge									
3	Single Family	3,808,652	\$5.00	\$228,519	3,905,273	\$5.00	\$234,316	\$5,797	\$0.00000	0.0%
4	Multi-Family	1,784,011	\$5.00	\$107,041	1,825,058	\$5.00	\$109,503	\$2,463	\$0.00000	0.0%
5	Small Master Meter	121,819	\$5.00	\$7,309	123,305	\$5.00	\$7,398	\$89	\$0.00000	0.0%
6	Submeter Credit-\$/unit/day	141,547	(\$0.28800)	(\$14,879)	128,003	(\$0.33370)	(\$15,591)	(\$711)	(\$0.04570)	15.9%
7	Volumetric Transportation Rate Exclude CSITMA and CAT:									
8	Baseline Rate	1,619,181	\$0.71401	\$1,156,106	1,458,094	\$0.67322	\$981,621	(\$174,485)	(\$0.04078)	-5.7%
9	Non-Baseline Rate	718,079	\$1.12791	\$809,927	719,874	\$1.09917	\$791,266	(\$18,661)	(\$0.02873)	-2.5%
10		2,337,260	\$0.98150	\$2,294,023	2,177,968	\$0.96811	\$2,108,515	(\$185,508)	(\$0.01339)	-1.4%
11	NBL/BL Ratio:							,		
12	Composite Rate \$/th		\$1,40891			\$1,30512			(\$0,10378)	-7.4%
13	Gas Rate \$/th		\$0,49233			\$0,40172			(\$0.09062)	-18.4%
14	NBL/Composite rate ratio (4) =		1 1500000000			1 15000000000			. ,	
15	NBI - BI rate difference \$/th		0 41390			0 42595			\$0 01205	2.9%
16										
17	Large Master Meter Rate (Excludes Rate Adders for CAT)									
18	Customer Charge	49	\$547.28	\$325	53	\$547.28	\$345	\$20	\$0.00	0.0%
19	Baseline Rate	7 787	\$0.44153	\$3.438	5 868	\$0.39120	\$2 296	(\$1.143)	(\$0.05033)	-11.4%
20	Non-Baseline Rate	1 306	\$0.69748	\$911	2 147	\$0.52812	\$1 134	\$223	(\$0.16936)	-24 3%
21		9,093	\$0.51397	\$4.673	8 015	\$0.47091	\$3 774	(\$899)	(\$0.04306)	-8.4%
22		0,000	Q0.01001	Q4,015	0,010	00.41001	00,114	(0000)	(00.04000)	0.470
22	Posidential Pates Include CSITMA_CAPB and CHC Excludes CAT-									
24	CSITMA Addes to Volumetric Date	1 696 646	£0.00022	8540	1 507 009	C0 00024	\$50C	(622)	£0.00002	4 09/
24	CARP Adder to Volumetric Nate	2 246 252	\$0.00032	¢340	2 105 002	\$0.00034 \$0.00160	\$2,400	(400)	Ψ0.0000Z	4.370
20	CARD Adder to Volumetric Rate	2,340,353	50.00143	\$3,303	2,105,505	\$0.00100	00,400 COEC OCT	\$130		
20	Desidential:	2,340,353	QU. 10911	\$200,000	2,105,505	30.11723	\$250,207	\$207		
21	Custemar Charge		55.00			55.00			50,00000	0.09/
20	Customer Charge		35.00			35.00			\$0.00000	0.0%
29	Daseline S/therm		\$U.02407			50.79239			(\$0.03247)	-3.9%
30	Non-Baseline Sytherm		\$1.23877			\$1.21834			(\$0.02043)	-1.0%
31	Average NonCARE Rate S/therm		\$1.09236			\$1.08728			(\$0.00508)	-0.5%
32	Customer Cherry		6547.00			6547.00			60.00	0.09/
33	Customer Charge		3047.20			\$047.20 C0.54007			50.00	0.0%
34	BaseLine Rate		\$0.55239			\$0.51037			(\$0.04202)	-7.6%
35	Non-baseline Rate		\$0.80834			\$0.64729			(\$0.16105)	-19.9%
36	Average NonCARE Rate Sytherm		\$0.62483			\$0.59008			(\$0.03475)	-5.6%
37	Residential Rates Include CSTIMA & CAT:	07.000	60 00000	60	00.400	60 00000		C 0		
38	CAT Adder to Volumetric Rate	27,389	\$0.00000	\$0	23,460	\$0.00000	\$0	\$0	\$0.00000	
39	Residential:		65.00			65.00				0.00/
40	Customer Charge		35.00			35.00			50.00000	0.0%
41	DaseLine Kate		\$0.82487			\$0.79239			(\$0.03247)	-3.9%
42	Non-Daseline Kate	-	\$1.23877			\$1.21834			(\$0.02043)	-1.6%
43	Large Master Meter:		0517.00			0517.00				0.004
44	Customer Charge		\$547.28			\$547.28			\$0.00000	0.0%
45	BaseLine Kate		\$0.55239			\$0.51037			(\$0.04202)	-7.6%
46	Non-Baseline Rate		\$0.80834			\$0.64729			(\$0.16105)	-19.9%
4/	Other Adjustments:		(60.00007)			(*** ****			(60.00000)	4.000
48	TCA for CSTINIA exempt customers		(\$0.00032)			(\$0.00034)			(\$0.00002)	4.9%
49	California Climate Credit - April Bill		(\$44.17)			(\$44.17)				
50	TOTAL RESIDENTIAL	2,346,353	\$1.09046	\$2,558,598	2,185,983	\$1.08535	\$2,372,561	(\$186,037)	(\$0.00511)	-0.5%

TABLE 2

See footnotes, Table 1.

			Core Nonresi Southern	TABLE 3 dential Transp California Gas 08/28/23	ortation Rates Company					
			Deres de Detere	TCAP 1/1/2024	D	- d D-t		Cha		
		Mar. 1.00	Present Rates	M 1 22	Propos	ed Rates	Inc. 1.04	Davanua	Inges	0/ Data
		Volumoo	Reta	Revenue	Volumon	Data	Douonuo	Change	Change	/o Rate
		Mth	C/th	COOO's	Mth	C/th	¢000'a	change soon	Change ©/th	w.
		IVILITI	ə/m	\$000 s	NICH	ə/tri	5000 s	5000 s	ə/m	70
1		~	U	C	0	L				
2	CORE COMMERCIAL & INDUSTRIAL									
3	Customer Charge 1	141.378	\$15.00	\$25 448	141.959	\$15.00	\$25,553	\$105	\$0.00	0.0%
4	Customer Charge 2	62,136	\$15.00	\$11,185	61.062	\$15.00	\$10,991	(\$193)	\$0.00	0.0%
5	Volumetric Transportation Rate Exclude CSITMA & CAT:				,					
6	Tier 1 = 250th/mo	202,399	\$0.95104	\$192,490	182,276	\$1.04269	\$190,056	(\$2,433)	\$0.09165	9.6%
7	Tier 2 = next 4167 th/mo	449,431	\$0.49692	\$223,331	386,664	\$0.54547	\$210,914	(\$12,417)	\$0.04855	9.8%
8	Tier 3 = over 4167 th/mo	340,876	\$0.19243	\$65,595	311,380	\$0.21209	\$66,041	\$445	\$0.01966	10.2%
9		992,706	\$0.52186	\$518,049	880,320	\$0.57201	\$503,555	(\$14,494)	\$0.05016	9.6%
10										
11	Volumetric Transportation Rate Include CSITMA & GHG, Exclude C	AT:								
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			\$1.16026			\$0.09979	9.4%
15	Tier 2 = next 4167 th/mo		\$0.60634			\$0.66304			\$0.05669	9.4%
16	Tier 3 = over 4167 th/mo		\$0.30186			\$0.32966			\$0.02780	9.2%
17			\$0.63128			\$0.68958			\$0.05830	
18									\$0.00000	
19	Volumetric Transportation Rate Include CSTIMA & CAT:									
20	CAT Adder to Volumetric Rate	139,308	\$0.00000	\$0	98,391	\$0.00000	\$0	\$0	\$0.00000	0.404
21	Tier 1 = 250th/mo		\$1.06047			\$1.16026			\$0.09979	9.4%
22	Tier 2 = next 4167 th/mo		\$0.60634			\$0.66304			\$0.05669	9.4%
23	11er 3 = over 4167 th/mo		\$0.30186			\$0.32966			\$0.02780	9.2%
24	Other Adjustments		\$U.03120			20.00320			30.05030	9.2%
25	Other Adjustments:		(60,00023)			(\$0.00024)			(50,00002)	4.09/
20	GHG Fee Credit S/th	I	(\$0.00032)			(\$0.00034) (\$0.11723	n		(30.00002)	4.370
28		992 706	\$0.63128	\$626.673	880 320	\$0.68958	\$607.049	(\$19.624)	\$0.05830	9.2%
29	TOTAL CORE OUT	002,100	0100120	\$020,010	000,020	\$0100000	\$001,040	(\$10,024)	0100000	0.2.70
30	NATURAL GAS VEHICLES (a sempra-wide rate)									
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	155	\$65.00	\$121	\$31	\$0,00000	0.0%
33	Uncompressed Rate Exclude CSITMA, GHG & CAT	178,769	\$0,22599	\$40,400	167.083	\$0.25491	\$42,592	\$2,192	\$0.02892	12.8%
34	Total Uncompressed NGV	178,769	\$0.22672	\$40,531	167,083	\$0.25585	\$42,747	\$2,216	\$0.02912	12.8%
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	í.	(\$1.22702)			(\$0.39682)			\$0.83020	
37	Uncompressed Rate Include CSITMA, CARB and GHG Exclude CAT		. ,			. ,				
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			\$0.37408			\$0.03723	11.1%
42	Combined transport & compressor adder & LCFS Credit \$/th		\$0.15156			\$0.89180			\$0.74023	488.4%
43	Other Adjustments:									
44	TCA for CSITMA exempt customers		(\$0.00032)			(\$0.00034)			(\$0.00002)	4.9%
45		470 700	¢0.25400	¢c2 200	407.002	¢0.42402	\$70.04C	£0.745	£0.07002	24 79/
46	TOTAL NOV SERVICE	1/8,/69	\$0.35409	\$63,300	167,083	\$U.4310Z	\$12,016	30,/15	\$0.07693	Z 1.1%
47										
48	RESIDENTIAL NATURAL GAS VEHICLES (optional rate)									
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	\$0.38796	\$59	(\$6)	\$0.00131	0.3%
51	Usersen and Bata la dada COITMA, Facilitada CAT	166	\$0.54240	290	151	\$0.54309	\$82	(\$8)	\$0.00070	0.1%
52	CONTINA Address Volumetric Date	100	60.00022	60	454	E0 00034	C 0		60,0000	4.09/
53	CARR Adder to Volumetric Rate	100	\$0.00032	\$U ©0	151	\$0.00034	\$U 50		\$0.00002	4.9%
54	CARD Adder to Volumetric Rate	100	\$0.00145 C0.10011	5U 010	101	50.00160	ΦU 0.10			
55	Uncompressed Data Stherm	100	\$0.10311	\$10	151	\$0.11723 \$0.50712	\$10		£0.000£2	1.09/
50	oncompressed Rate onnerni		00.43750			00.00710			QU.00302	1.370
58	Incompressed Rate Include CSITMA & CAT									
59	CAT Adder to Volumetric Rate	0	\$0 00000	\$0	0	\$0 00000	\$0	\$0	\$0.00000	
60	Uncompressed Rate		\$0,49750		, , , , , , , , , , , , , , , , , , ,	\$0,50713		50	\$0.00962	1,9%
61	Other Adjustments:									
62	TCA for CSITMA exempt customers		(\$0.00032)			(\$0.00034)			(\$0.00002)	4.9%
63										
64	TOTAL RESIDENTIAL NATURAL GAS VEHICLES	166	\$0.65326	\$109	151	\$0.66226	\$100	(\$9)	\$0.00901	1.4%

	08/28/23										
			Descent Deter	TCAP 1/1/2024	D	- d D-t		Cha			
		Mar 1 22	Present Rates	Mar 1 22	Proposi	ed Rates	len 1 24	Cha	nges	0/ Data	
		Volumes	Rate	Revenue	Volumes	Rate	Revenue	Change	Change	change	
		Mth	\$/th	\$000's	Mth	\$/th	\$000's	\$000's	\$/th	%	
		A	B	C	D	F	F	G	Н	ĩ	
1			_	-	_	_		_			
2											
3	NON-RESIDENTIAL GAS A/C										
4	Customer Charge	8	\$150	\$14	4	\$150	\$7	(\$7)	\$0.00000	0.0%	
5	Volumetric Rate	416	\$0.23531	\$98	140	\$0.45100	\$63	(\$35)	\$0.21570	91.7%	
6		416	\$0.26990	\$112	140	\$0.50228	\$71	(\$42)	\$0.23238	86.1%	
7	Volumetric Rates Include CSITMA, Exclude CAT										
8	CSITMA Adder to Volumetric Rate	416	\$0.00032	\$0	140	\$0.00034	\$0	(\$0)	\$0.00002	4.9%	
9	Volumetric		\$0.23563			\$0.45134			\$0.21571	91.5%	
10	Volumetric Rates Include CSITMA & CAT										
11	CAT Adder to Volumetric Rate	0	\$0.00000	\$0	0	\$0.00000	\$0	\$0	\$0.00000		
12	Gas A/C Rate		\$0.23563			\$0.45134		\$0	\$0.21571	91.5%	
13	Other Adjustments:		(50.0000)			(00.00004)			(00.0000)	4.00%	
14	TCA for CSITMA exempt customers		(\$0.00032)			(\$0.00034)			(\$0.00002)	4.9%	
15		446	¢0 37033	\$110	140	\$0.50262	\$74	(\$43)	¢0.22240	96.0%	
17	TOTAL A/C SERVICE	410	30.21022	\$112	140	\$0.30Z0Z	3/1	(\$42)	\$0.23240	00.0%	
18	GAS ENGINES										
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 24158	\$4 791	(\$563)	\$0.00155	0.6%	
21		22,302	\$0.25917	\$5,780	19.830	\$0,26131	\$5,182	(\$598)	\$0.00214	0.8%	
22	Volumetric Rates Include CSITMA, Exclude CAT					•		(•		
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			\$0.24191			\$0.00156		
25	Volumetric Rates Include CSITMA & CAT										
26	CAT Adder to Volumetric Rate	0	\$0.00000	\$0	0	\$0.00000	\$0	\$0	\$0.00000		
27	Gas Engine Rate		\$0.24035			\$0.24191		\$0	\$0.00156	0.7%	
28	Other Adjustments										
29	TCA for CSITMA exempt customers		(\$0.00032)			(\$0.00034)			(\$0.00002)	4.9%	
30											
31	TOTAL GAS ENGINES	22,302	\$0.25948	\$5,787	19,830	\$0.26164	\$5,188	(\$598)	\$0.00216	0.8%	
32											
33	STREET & OUTDOOR LIGHTING (equals average Non-CAT CCI Rate)										
34	Street & Outdoor Lighting Base Rate		\$0.63128			\$0.68958			\$0.05830	9.2%	
35											
36	CORE ELECTRIC GENERATION (EG) (optional rate)		050.00								
37	Customer Charge		\$50.00			\$50.00			\$0.00		
38 20	Rate excluding CAT		ψ 0.32677			\$0.38052			\$0.05375		
39	CAT Adder to Volumetric Pate	0	\$0,0000	C 0	0	\$0,0000	50	60	\$0,0000		
40	Cara EG Pate	U	\$0.00000 \$0.22677	φU	U	\$0.00000 \$0.28052	30	50	\$0.00000		
41	COIR LO Rate		0.32011			\$0.3005Z		30	\$0.05375		

				TABLE 5						
			Noncore Com	mercial & Ind	ustrial Rates					
			Southern C	alifornia Gas	Company					
				08/28/23						
			1	CAP 1/1/2024						
			Present Rates		Proposed	l Rates		Cha	nges	
		Mar-1-22	Average	Mar-1-22	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	%
		Α	В	С	D	E	F	G	Н	1
1	NonCore Commercial & Industrial Distribution Level									
2	Customer Charge	563	\$350.00	\$2,367	526	\$350.00	\$2,209	(\$157)	\$0.00000	0.0%
3										
4	Volumetric Rates Include CARB Fee, Exclude GHG, and CSITMA									
5	Tier 1 = 250kth/yr	124,403	\$0.29279	\$36,424	118,870	\$0.33499	\$39,820	\$3,397	\$0.04220	14.4%
6	Tier 2 = 250k to 1000k	217,228	\$0.18422	\$40,018	207,858	\$0.20946	\$43,538	\$3,521	\$0.02524	13.7%
7	Tier 3 = 1 to 2 million th/yr	118,763	\$0.11477	\$13,631	114,904	\$0.12916	\$14,841	\$1,211	\$0.01439	12.5%
8	Tier 4 = over 2 million th/yr	459,341	\$0.06514	\$29,923	452,654	\$0.07178	\$32,492	\$2,569	\$0.00664	10.2%
9	Volumetric totals (excl itcs)	919,735	\$0.13047	\$119,995	894,285	\$0.14614	\$130,692	\$10,697	\$0.01567	12.0%
10										
11	Volumetric Rates Include CARB, GHG, CSITMA									
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			\$0.45256			\$0.05035	12.5%
15	Tier 2 = 250k to 1000k		\$0.29365			\$0.32703			\$0.03338	11.4%
16	Tier 3 = 1 to 2 million th/yr		\$0.22420			\$0.24673			\$0.02253	10.1%
17	Tier 4 = over 2 million th/yr		\$0.17457			\$0.18935			\$0.01478	8.5%
18	Other Adjustments:									
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	NCCI - DISTRIBUTION LEVEL	919,735	\$0.18162	\$167,045	894,285	\$0.20081	\$179,577	\$12,532	\$0.01918	10.6%
23		,								
24	NCCI-TRANSMISSION LEVEL Incl CARB & GHG Fee Excl CSITMA (1)	3,661	\$0.03003	\$110	4.219	\$0.05115	\$216	\$106	\$0.02112	70.3%
25	NCCI-TRANSMISSION LEVEL Incl CARB & GHG Fee, SGIP and CSITM	622,419	\$0.03035	\$20,884	746,461	\$0.05148	\$39,729	\$18,846	\$0.02113	69.6%
26	NCCI-TRANSMISSION LEVEL (2)	626,080	\$0.03353	\$20,994	750,680	\$0.05321	\$39,945	\$18,951	\$0.01968	58.7%
27										
28	TOTAL NONCORE C&I	1.545.814	\$0.12164	\$188,039	1.644.965	\$0.13345	\$219,523	\$31,484	\$0.01181	9.7%

<u>TABLE 4</u> Core Nonresidential Transportation Rates (continued) <u>Southern California Gas Company</u>

TABLE 6 Noncore Electric Generation Rates and Enhanced Oil Recovery Rates Southern California Gas Company 09/28/23

		TCAP 1/1/20						Channer			
			Present Rates		Propos	ed Rates		Cha	nges		
		Mar-1-22	Average	Mar-1-22	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	в	С	D	Е	F	G	н	1	
1											
2	ELECTRIC GENERATION										
2											
4											
4		CADD & CIV									
0	Small EG Distribution Level Service (a Sempra-Wide rate) Exclude		G Fee & CSITWA	<u>.</u>	200	CC0 00	6405	CO	60.00000	0.00/	
6	Customer Charge	308	\$50.00	\$185	309	\$50.00	\$165	50	\$0.00000	0.0%	
	Volumetric Rate	88,449	\$0.17290	\$15,292	114,668	\$0.17965	\$20,600	\$5,307	\$0.00675	3.9%	
8	Small EG Distribution Level Service	88,449	\$0.17499	\$15,477	114,668	\$0.18126	\$20,785	\$5,308	\$0.00628	3.6%	
9											
10	Large EG Distribution Level Service (a Sempra-Wide rate) Exclude	CARB & GH	G Fee & CSITM/	<u>\</u>							
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	\$0.11411	\$25,175	\$1,207	\$0.01548	15.7%	
13	Large EG Distribution Level Service	242,993	\$0.09864	\$23,968	220,612	\$0.11411	\$25,175	\$1,207	\$0.01548	15.7%	
14											
15	EG Distribution excl CARB Fee & CSITMA	331.442	\$0,11901	\$39,445	335,280	\$0,13708	\$45,960	\$6,514	\$0.01807	15.2%	
16							. ,		-		
17	Volumetric Rates Include CARB & GHG Fee Exclude CSITMA										
18	CARB Fee Cost Adder	330.876	\$0.001/13	\$474	294 526	\$0,00160	\$471	(\$3)	\$0.00017	11 7%	
10	CHC Cost Adder	107 720	50.00143	0474 611 765	106 200	\$0.00100 \$0.11733	C14 90C	(03)	50.00017	11.770	
19	CO Distribution Tim A w/OADD Fee	107,755	50.10911	311,755	120,300	50.11723	\$14,000	\$3,051	50.00015	5.20/	
20	EG-Distribution Tier 1 W/CARD Fee		\$0.26343			\$0.29646			\$0.01505	5.3%	
21	EG-Distribution Tier 2 w/CARB Fee		\$0.20917			\$0.23294			\$0.02377	11.4%	
22	Total - EG Distribution Level	331,442	\$0.15591	\$51,675	335,280	\$0.18265	\$61,238	\$9,563	\$0.02674	17.1%	
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	\$0.04955	\$89,229	\$24,997	\$0.02095	73.3%	
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	\$0.05234	\$94,260	\$20,728	\$0.01960	59.9%	
32											
33	TOTAL ELECTRIC GENERATION	2 577 778	\$0.04857	\$125 206	2 136 249	\$0.07279	\$155.497	\$30.291	\$0.02422	49.9%	
34		2,511,110	\$0.04051	\$123,200	2,130,243	\$0.01£13	\$100,401	\$30,231	30.02422	40.070	
25	FOR Rates & revenue Exclude CARB Fee & CSITMA:										
30	Distribution Loval EOD:										
20		00	6500.00	6400	40	CC00.00	6400	(600)	60.00000	0.00/	
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	\$0.13610	\$15,039	(\$2,884)	\$0.01800	15.2%	
39											
40	Volumetric Rates Include CARB & GHG Fee, Exclude CSITMA										
41	CARB Fee		\$0.00143			\$0.00160					
42	GHG Fee		\$0.10911			\$0.11723					
43	Volumetric Rate Incl CARB Fee & Excl CSITMA		\$0.22864			\$0.25493			\$0.02629	11.5%	
44	Distribution Level EOR	151,758	\$0.11901	\$18,061	110,501	\$0.13708	\$15,147	(\$2,914)	\$0.01807	15.2%	
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	\$0.04955	\$2 158	\$523	\$0 02095	73.3%	
48	Total FOR	208 941	\$0.09427	\$19.696	154.067	\$0 11233	\$17 306	(\$2 390)	\$0.01806	19.2%	
40	1) CSITMA - Noncore C&LD Tariff rate Include CSITMA - Customore exem	ot including (Constitutionally E	veront receive	Transportation Ch	arge Adjustment (TC	Δ)	[#£,550]	40.01000	13.2.10	
	EG Tariff Pata Evoluda CSITMA, since EG oustamere are everent	es, moraung (Sonaccoondity E	Ashipt, receive	manaponation Ch	ange Aujustinent (10	· ···				
	CARP & CHO Face, EC D and NCOLD rates include CARP & CHO Face.										
	2) CARD & GHG Fees - EG-D and NUCI-D rates include CARB & GHG Fe	Bes.					0.5				
	a) EOK customers tarm include CARD & GHG Fees and Excludes CSITM On Control of the target of	A, SINCE EOF	costomers are e	cempt from CS	and get a ci	reuit for CARD & GH	a rees.				
	See tootnotes, Table 1.										

49										
50	Other Adjustments:									
51	California Air Resources Board (CARB) Fee Credit \$/th		(\$0.00143)			(\$0.00160)			(\$0.00017)	11.7%
52	Greenhouse Gas (GHG) Fee Credit \$/th		(\$0.10911)			(\$0.11723)			(\$0.00813)	7.4%
53										
54	Rate Excluding CSITMA, CARB, GHG Fee, & Uncollectibles (application)	able to Whole	sale & Internat	tional):						
55	Reservation Service Option (RS):									
56	Daily Reservation rate \$/th/day		\$0.01067			\$0.02353			\$0.01286	120.5%
57	Usage Charge for RS \$/th		\$0.01270			\$0.01255			(\$0.00016)	-1.3%
58	Class Average Volumetric Rate (CA)									
59	Volumetric Rate \$/th		\$0.01580			\$0.03686			\$0.02106	133.3%
60	Usage Charge for CA \$/th		\$0.01270			\$0.01255			(\$0.00016)	-1.3%
61	Class Average Volumetric Rate (CA) \$/th		\$0.02850			\$0.04940			\$0.02090	73.3%
62										
63	115% CA (for NonBypass Volumetric NV) \$/th		\$0.03278			\$0.05681			\$0.02403	73.3%
64	135% CA (for Bypass Volumetric BV) \$/th		\$0.03848			\$0.06669			\$0.02821	73.3%
65	Total Transmission Level Service (WS & Int'l)	359,267	\$0.02859	\$10,273	402,918	\$0.04954	\$19,961	\$9,688	\$0.02095	73.3%
66										
67	Average Transmission Level Service	3,231,682	\$0.03243	\$104,799	2,954,567	\$0.05218	\$154,157	\$49,359	\$0.01975	60.9%

TABLE 7
Transmission Level Service Transportation Rates
Southern California Gas Company
08/28/23

		Present Rates		Proposed Rates			Changes			
		Mar-1-22	Average	Mar-1-22	Jan-1-24	eu Rates	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	В	С	D	E	F	G	Н	1
1	Rate Excluding CSITMA & CARB Fee:									
2	Paily Pesevitian rate \$/th/day		\$0.01070			\$0.02360			\$0.01289	120 5%
4	Usage Charge for RS \$/th		\$0.01070			\$0.02360			(\$0.01209	-1.3%
5	Class Average Volumetric Rate (CA)		00.01214		-	00.01250			(00.00010)	-1.570
6	Volumetric Rate \$/th		\$0.01584			\$0.03696			\$0.02112	133.3%
7	Usage Charge for CA \$/th		\$0.01274			\$0.01258			(\$0.00016)	-1.3%
8	Class Average Volumetric Rate (CA) \$/th		\$0.02858			\$0.04954			\$0.02096	73.3%
9										
10	115% CA (for NonBypass Volumetric NV) \$/th		\$0.03287			\$0.05697			\$0.02410	73.3%
11	Table Target and Level Carries (NOCL FOR FOR	0.070.445	\$0.03859	600.400	0.554.640	\$0.06688	6400 400	644.007	\$0.02830	73.3%
12	Total Transmission Level Service (NCCI, EOR, EG)	2,072,415	\$U.U2059	302,135	2,551,649	30.04955	\$120,422		\$U.UZU95	13.3%
14	C&I Rate Including CSITMA & CARB & GHG & SGIP Fee									
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			\$0.02360		\$0	\$0.01289	120.5%
21	Usage Charge for RS \$/th		\$0.12546			\$0.13206		\$0	\$0.00660	5.3%
22	Valumetria Dete S/th		50.01594			50.02606		50	£0.02112	122 20/
23	Usage Charge for CA \$/th		\$0.01564			\$0.03050		50	\$0.02112	5.3%
25	Class Average Volumetric Rate (CA) \$/th		\$0.12340			\$0.15200		50	\$0.00000	19.6%
26			00.14100			00.10002			00.02112	10.070
27	115% CA (for NonBypass Volumetric NV) \$/th		\$0.14559			\$0.17645		\$0	\$0.03086	21.2%
28	135% CA (for Bypass Volumetric BV) \$/th		\$0.15131			\$0.18636		\$0	\$0.03505	23.2%
29	Other Adjustments:									
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	2 972 445	(\$0.10911)	¢00.000	2 554 640	(\$0.11/23)	\$424.004	£42.040	(\$0.00813)	67.49/
34	Total Transmission Level Service Include CSITIMA & CARD & GHG &	2,012,413	\$0.03034	\$00,00Z	2,331,043	30.03100	\$151,001	\$43,015	\$0.02075	07.1%
35	EG & EOR Rate Including CARB Fee & GHG , excluding CSITMA:									
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			\$0.02360		\$0	\$0.01289	120.5%
41	Usage Charge for RS \$/th		\$0.12580			\$0.13270		\$0	\$0.00690	5.5%
42	Volumetric Date %/h		\$0.01584			\$0.03696		50	\$0.02112	133 3%
43	Usage Charge for CA \$/th		\$0.01564			\$0.03030		50	\$0.02112	5.5%
45	Class Average Volumetric Rate (CA) \$/th		\$0.14164			\$0 16967		50	\$0.02802	19.8%
46						••••••				
47	115% CA (for NonBypass Volumetric NV) \$/th		\$0.14593			\$0.17710		\$0	\$0.03117	21.4%
48	135% CA (for Bypass Volumetric BV) \$/th		\$0.15165			\$0.18701		\$0	\$0.03536	23.3%
49										
50	Other Adjustments:									
51	California Air Resources Board (CARB) Fee Credit \$/th		(\$0.00143)			(\$0.00160)			(\$0.00017)	11.7%
52	Greenhouse Gas (GHG) Fee Credit \$/th		(\$0.10911)			(\$0.11723)			(\$0.00813)	7.4%
53	Pate Evoluting CSITMA_CARP_CHC Eqs. 8 Uncellectibles (applies	ble te Whele	salo 8 Internati	onally						
55	Reservation Service Option (RS):		sale à internati	onaŋ.						
56	Daily Reservation rate \$/th/day		\$0.01067			\$0.02353			\$0.01286	120.5%
57	Usage Charge for RS \$/th		\$0.01270			\$0.01255			(\$0.00016)	-1.3%
58	Class Average Volumetric Rate (CA)									
59	Volumetric Rate \$/th		\$0.01580			\$0.03686			\$0.02106	133.3%
60	Usage Charge for CA \$/th		\$0.01270			\$0.01255			(\$0.00016)	-1.3%
61	Class Average Volumetric Rate (CA) \$/th		\$0.02850			\$0.04940			\$0.02090	73.3%
62	115% CA (for NonBynass Volumetric NV) \$/th		60.02279			50.05690			50.02404	72 29/
64	135% CA (for Bypass Volumetric BV) \$/th		\$0.03278			\$0.05662			\$0.02404	73.3%
65	Total Transmission Level Service (WS & Int'l)	359,267	\$0.02859	\$10,273	402,918	\$0.04955	\$19,963	\$9,690	\$0.02095	73.3%
66										
67	Average Transmission Level Service	3.231.682	\$0.03243	\$104,799	2,954,567	\$0.05218	\$154,167	\$49.369	\$0.01975	60.9%

TABLE 8 Backbone Transmission Service and Storage Rates Southern California Gas Company 08/28/23

		Present Rates			Propose	ed Rates	Changes			
		Mar-1-22	Average	Mar-1-22	Jan-1-24		Jan-1-24	Revenue	Rate	% Rate
		Volumes	Rate	Revenue	Volumes	Rate	Revenue	Change	Change	change
		Mth	\$/th	\$000's	Mth, Mdth	\$/th	\$000's	\$000's	\$/th	%
		A	В	С	D	E	F	G	н	1
1	Backbone Transmission Service BTS									
2	BTS SFV Reservation Charge \$/dth/day	2,532	\$0.36798	\$340,120	2,532	\$0.49936	\$461,557	\$121,437	\$0.13138	35.7%
3	BTS MFV Reservation Charge \$/dth/day		\$0.29438			\$0.39949				
4	BTS MFV Volumetric Charge \$/dth		\$0.07360			\$0.09987				
5	BTS Interruptible Volumetric Charge \$/dth		\$0.36798			\$0.49936			\$0.13138	35.7%
6										
7										
8	Storage Costs: (incl. HRSMA)									
9	Core \$000			\$114,299			\$145,825	\$31,525		
10	Load Balancing \$000			\$74,383			\$115,275	\$40,893		
11	Unbundled Storage \$000			\$0			\$0	\$0		
12				\$188 682			\$261 100	\$72.418		

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

		Na	tural Gas Tra	ansportation I	Rate Revenue	es				
			San D	iego Gas & E	lectric					
			Jan	uary, 2024 Ra	ates					
				08/28/23						
				TCAP 1/1/2	024					
		J 4	t Proposed I	Rates		At Proposed I	Rates		Changes	
		Mar-1-22	Average	Mar-1-22	Jan-1-24	Average	Jan-1-24			Rate
		Volumes	Rate	Revenues	Volumes	Rate	Revenues	Revenues	Rates	change
		mtherms	\$/therm	\$000's	mtherms	\$/therm	\$000's	\$000's	\$/therm	%
		D	E	F	D	E	F	G	Н	1
1	CORE									
2	Residential	313,234	\$1.47125	\$460,846	270,604	\$1.70303	\$460,848	\$1	\$0.23178	15.8%
3	Commercial & Industrial	194,777	\$0.61067	\$118,944	178,913	\$0.64170	\$114,810	(\$4,135)	\$0.03104	5.1%
4										
5										
6	NGV - Pre Sempra-Wide	24,129	\$0.26582	\$6,414	23,179	\$0.30443	\$7,056	\$642	\$0.03861	14.5%
7	Sempra-Wide Adjustment	24,129	\$0.08914	\$2,151	23,179	\$0.08066	\$1,870	(\$281)	(\$0.00848)	-9.5%
8	NGV Post Sempra-Wide	24,129	\$0.35496	\$8,565	23,179	\$0.38509	\$8,926	\$361	\$0.03013	8.5%
9										
10	Total CORE	532,140	\$1.10564	\$588,355	472,696	\$1.23670	\$584,583	(\$3,772)	\$0.13106	11.9%
11										
12	NONCORE COMMERCIAL & INDUSTRIAL									
13	Distribution Level Service	29,376	\$0.16284	\$4,783	35,337	\$0.20322	\$7,181	\$2,398	\$0.04038	24.8%
14	Transmission Level Service (2)	17,569	\$0.03423	\$601	13,965	\$0.05651	\$789	\$188	\$0.02228	65.1%
15	Total Noncore C&I	46,945	\$0.11471	\$5,385	49,302	\$0.16166	\$7,970	\$2,585	\$0.04696	40.9%
16										
17	NONCORE ELECTRIC GENERATION									
18	Distribution Level Service									
19	Pre Sempra-Wide	68,867	\$0.11988	\$8,256	71,656	\$0.15581	\$11,165	\$2,909	\$0.03594	30.0%
20	Sempra-Wide Adjustment	68,867	\$0.05768	\$3,973	71,656	\$0.05307	\$3,803	(\$170)	(\$0.00461)	-8.0%
21	Distribution Level post SW	68,867	\$0.17756	\$12,228	71,656	\$0.20888	\$14,968	\$2,740	\$0.03132	17.6%
22	Transmission Level Service (2)	461,363	\$0.02990	\$13,795	225,945	\$0.04975	\$11,241	(\$2,553)	\$0.01985	66.4%
23	Total Electric Generation	530,230	\$0.04908	\$26,023	297,600	\$0.08807	\$26,209	\$186	\$0.03899	79.4%
24										
25	TOTAL NONCORE	577,175	\$0.05442	\$31,408	346,902	\$0.09853	\$34,179	\$2,772	\$0.04411	81.1%
26										
27	SYSTEM TOTAL	1,109,315	\$0.55869	\$619,763	819,598	\$0.75496	\$618,762	(\$1,000)	\$0.19627	35.1%

TABLE 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.
 The average Transmission Level Service (TLS) rate is shown here, see Rate Table 6 for detailed list of TLS rates.
 All rates include Franchise Fees & Uncollectible charges.

TABLE 2 Core Gas Transportation Rates San Diego Gas & Electric January, 2024 Rates 08/28/23

		r		TCAP 1/1/2	024			r		
		A	t Present Rat	es	At Pr	oposed Rates			Changes	
		Mar-1-22	Average	Mar-1-22	Jan-1-24	Average	Jan-1-24			Rate
		Volumes	Rate	Revenues	Volumes	Rate	Revenues	Revenues	Rates	change
		mtherms	\$/therm	\$000's	mtherms	\$/therm	\$000's	\$000's	\$/therm	%
		Α	В	С	D	E	F	G	н	1
1	Residential RATES Schedule GR,GM									
2	Rates Exclude CSITMA & CAT									
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	\$1.52993	\$294,117.471	(\$46,078)	\$0.19719	14.8%
6	Non-Baseline \$/therm	57,974	\$1.60650	\$93,136	78,361	\$1.82854	\$143,287.282	\$50,151	\$0.22204	13.8%
7	Average Rate \$/therm	313,234	\$1.38921	\$435,147	270,604	\$1.62168	\$438,833	\$3,686	\$0.23247	16.7%
8	NBL/BL Ratio									
9	Composite Rate \$/th		\$ 1.83219			\$1,94122			\$0,10903	
10	Gas Rate \$/th		\$ 0 49233			\$0 40386			-\$0 08847	-18 0%
11	NBL/Composite rate ratio		1 1455335			1 1500000				
12	NBI - BI rate difference \$/th		0 27376			\$0,29861			\$0 02485	
13										
14	Rates Include CSITMA_CARB and GHG Adders Excludes CAT									
15	CSITMA Adder to Volumetric Rate	246 343	\$0.00162	\$399	203 713	\$0.00183	\$373	(\$26)	\$0.00021	13.0%
16	CAPB Adder to Volumetric Pate	313 234	\$0.00137	¢333	270 604	\$0.00105	\$313	(#20)	00.00021	10.070
47	CHC Field Here Addeets Melowskie Date	212,224	\$0.00137 ©0.00039	€20.4C0	270,004	\$0.00113 ©0.10540	#011 #00.500			
10	Brocker & Adder to Volumetric Rate	515,254	50.09626	\$30, ISO	270,604	\$0.10540	\$20,530		0.00000	4.4.40/
10	Daseine Striem		\$1.43201 #4.70577			\$1.03037 • 04.03000			\$U.20636	14.4%
19	Non-Baseline S/therm		\$1.70577			\$1.93698			\$0.23121	13.6%
20	Average NonCARE Rate \$/therm		\$1.48848			\$1.73012			\$0.24164	16.2%
21										
22	Sub Meter Credit Schedule GS,GI	5.070	(00.50000)	101.010	c 070	(00.00.00)	(0.1.70.0)	(05.40)	(00.04400)	
23	GS Unit Discount \$/day	5,879	(\$0.58060)	(\$1,246)	5,879	(\$0.82192)	(\$1,764)	(\$518)	(\$0.24132)	41.6%
24	GT Unit Discount \$/day	26,104	(\$0.60099)	(\$5,726)	26,104	(\$0.84855)	(\$8,085)	(\$2,359)	(\$0.24756)	41.2%
25										
26	Schedule GL-1									
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	/6	\$0.16571	\$13	/8	\$0.16571	\$13		\$0.00000	0.0%
30				\$65			\$59			
31	Volumetric Rates Include All Adders & CA1									
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			\$1.63839			\$0.20637	14.4%
34	Non-Baseline \$/therm		\$1.70579			\$1.93701			\$0.23122	13.6%
35	Average Rate \$/therm		\$1.48849			\$1.73014			\$0.24165	16.2%
36										
37	Other Adjustments:									
38	Employee Discount			(\$367)			\$606	\$973		
39	SDFFD			\$1,987			\$1,976	(\$11)		
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	Total Residential	313,234	\$1.47125	\$460,846	270,604	\$1.70303	\$460,847.795	\$1	\$0.23178	15.8%

See footnotes, Table 1.

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

		At Present Rates			At Pro	posed Rates		Changes			
		Mar-1-22	Average	Mar-1-22	Jan-1-24	Average	Jan-1-24			Rate	
		Volumes	Rate	Revenues	Volumes	Rate	Revenues	Revenues	Rates	change	
		mtherms	\$/therm	\$000's	mtherms	\$/therm	\$000's	\$000's	\$/therm	%	
		А	в	С	D	E	F	G	Н	1	
1											
2											
3											
4	CORE COMMERCIAL & INDUSTRIAL RATES Schedule GN-3										
5	Customer Charge \$/month	30,937	\$10.00	\$3,712	30,488	\$10.00	\$3,659	(\$54)	\$0.00000	0.0%	
6											
7	Rates Exclude C SITMA & CAT										
8	Tier 1 = 0 to 1,000 therms/month	87,627	\$0.72694	\$63,700	80,437	\$0.75116	\$60,421	(\$3,278)	\$0.02422	3.3%	
9	Tier 2 = 1,001 to 21,000 therms/month	88,939	\$0.48348	\$43,000	81,765	\$0.51684	\$42,260	(\$740)	\$0.03337	6.9%	
10	Tier 3 = over 21,000 therms/month	18,211	\$0.41470	\$7,552	16,711	\$0.45065	\$7,531	(\$21)	\$0.03595	8.7%	
11											
12	Rates Includes CSITMA, Excludes CAT										
13	CSITMA Adder to Volumetric Rate	185,415	\$0.00162	\$300	169,551	\$0.00183	\$310	\$10	\$0.00021	13.0%	
14	Tier 1 = 0 to 1,000 therms/month		\$0.72856			\$0.75299			\$0.02443	3.4%	
15	Tier 2 = 1,001 to 21,000 therms/month		\$0.48510			\$0.51867			\$0.03358	6.9%	
16	Tier 3 = over 21,000 therms/month		\$0.41632			\$0.45248			\$0.03616	8.7%	
17											
18											
19	Rates Include CSITMA & CAT										
20	CAT Adder to Volumetric Rate	39,978	\$0.00002	\$1	31,043	\$0.00002	\$1	(\$0)	\$0.00000		
21	Tier 1 = 0 to 1,000 therms/month		\$0.72858			\$0.75301			\$0.02444	3.4%	
22	Tier 2 = 1,001 to 21,000 therms/month		\$0.48512			\$0.51870			\$0.03358	6.9%	
23	Tier 3 = over 21,000 therms/month		\$0.41634			\$0.45250			\$0.03616	8.7%	
24											
25	Other Adjustments:										
26	Adjustment for SDFFD			\$679		_	\$628	(\$51)			
27	Credit for CSITMA Exempt Customers:		(\$0.00162)			(\$0.00183)			(\$0.00021)	13.0%	
28											
29	Total Core C&I	194,777	\$0.61067	\$118,944	178,913	\$0.64170	\$114,810	(\$4,135)	\$0.03104	5.1%	

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.

			Other Core (<u>San Di</u>	TABLE 4 Gas Transpor ego Gas & E 08/28/23	rtation Rates <u>lectric</u>					
			oun	TCAP 1/1/2	024					
		A	Present Rat	es	At Prop	oosed Rates			Changes	
		Mar-1-22 Volumes mtherms	Average Rate \$/therm	Mar-1-22 Revenues \$000's	Jan-1-24 Volumes mtherms	Average Rate \$/therm	Jan-1-24 Revenues \$000's	Revenues \$000's	Rates \$/therm	Rate change %
		А	В	С	D	E	F	G	Н	1
1	NATURAL GAS VEHICLE RATES G-NGV & GT-NGV	Sempr	a-Wide NGV F	Rates	Sempra	-Wide NGV Rates				
2	Customer Charge		0.40.00							0.00/
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%
0	Uncomprosed Data Evaluate CSITMA & CAT &//thorm	24 120	¢0 00707	CE 40C	22 170	C0 25647	CE 046	C150	CO 02010	10.00/
7	Comprossed Adder Sitherm, evolude CSITMA & CAT Sitterin	628	\$1.04808	\$5,400 \$658	23,175	\$0.23047	\$0,340 \$433	(\$225)	(\$0.12797)	12.0 /0
8	Combined transport & compressor adder \$/th	020	\$1.04000	0000	4/1	\$1 17657	Ψ 1 00	(4223)	(\$0.09887)	-7.8%
q	Low Carbon Evel Standard (LCES) Credit		(\$1.27.344)			(\$0.39924)			(00.00007)	-1.070
10	Volumetric Rates Include CSITMA_CARB and GHG excludes CAT		(01.23443)	1		(00.33324)				
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	\$0.00105	\$27	\$ 5	00.00021	13.070
13	GHG End User Adder to Volumetric Rate	24,129	\$0.09628	\$2 323	23,179	\$0.10546	\$2 ///			
14	Uncompressed Rate S/therm	24,123	\$0.32664	Ψ <u>2</u> ,5 <u>2</u> 5	23,113	\$0.36491	Ψ2,444		\$0.03827	11 7%
15	Combined transport & compressor adder & LCES Credit \$/th		\$0.14022		-	\$0.88577			\$0.74555	531.7%
16	compiled transport & complessor adder & Eor o orealt with		\$0.14022			00.00011			00.14000	331.170
17	Volumetric Rates Include C SITMA & CAT									
18	CAT Adder to Volumetric Rate		\$0,00000			\$0,00000				
19	Uncompressed Rate \$/therm		\$0.32664			\$0.36491			\$0.03827	11.7%
20	Combined transport & compressor adder \$/th		\$1 37471		-	\$1,28501			(\$0.08970)	-6.5%
21	Other Adjustments:		•			01.20001			(00.00010)	0.070
22	Adjustment for SDEED			\$12			\$16	\$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)	I		(\$0.39924)		1	(********	
25	Total NGV	24,129	\$0.35496	\$8,565	23,179	\$0.38509	\$8,926	\$361	\$0.03013	8.5%
26		•								
27	RESIDENTIAL NATURAL GAS VEHICLES (optional rate)									
28	Customer Charge	15	\$5.00	\$1	12	\$5.00	\$1	(\$0)	\$0.00	0.0%
29	Uncompressed Rate w/o C SITMA & CAT \$/therm	9	\$1.91063	\$18	7	\$2.38742	\$18	(\$0)	\$0.47679	25.0%
30		9	\$2.00711	\$19	7	\$2.48390	\$19	(\$0)	\$0.47679	23.8%
31										
32	Volumetric Rates Including CSITMA, Excluding CAT									
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			\$2.49586			\$0.48596	24.2%
37										
38	Volumetric Rates Include CSITMA & CAT									
39	CAT Adder to Volumetric Rate	0	\$0.00002	\$0	0	\$0.00002	\$0	\$0	\$0.00000	
40	Uncompressed Rate \$/therm		\$2.00992			\$2.49589		\$ 0	\$0.48596	24.2%
41										
42	Other Adjustments:							l		
43	Adjustment for SDFFD			\$0			\$0	\$0		
44	Credit for CSITMA Exempt Customers \$/th		(\$0.00162)			(\$0.00183)			(\$0.00021)	13.0%
45		0	¢0.400000	¢20	7	¢0.0004	\$ 40	(0)	\$0.4050C	22.49
46	Total Residential NGV	9	\$2.10638	\$20		\$2.59234	\$19	(\$0)	\$0.48596	2 3.1%

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 08/28/23 January, 2024 Rates TCAP 14/2024

		•	t Procont Dat		024 At Dro	anored Pator			Channa		
		Mar 1 22	Avorago	Mor 1 22	Jan 1 24	Avorago	lon 1 24		changes	Pata	
		Volumes	Rate	Revenues	Volumes	Rate	Revenues	Revenues	Pates	change	
		mtherms	\$/therm	\$000's	mtherms	\$/therm	\$000's	\$000's	\$/therm	%	
		A	В	C	D	F	F	G	Н	ĩ	
1	NonCore Commercial & Industrial Distribution Level					_					
2	Customer Charges \$/month	44	\$350.00	\$185	53	\$350.00	\$223	\$38	\$0.00	0.0%	
3	-										
4	Volumetric Charges Exclude CARB, GHG, CSITMA	29,376	\$0.07162	\$2,104	35,337	\$0.10379	\$3,668	\$1,564	\$0.03217	44.9%	
5	CSITMA Adder to Volumetric Rate	24,049	\$0.00162	\$39	30,010	\$0.00183	\$55	<mark>\$1</mark> 6	\$0.00021	13.0%	
6	GHG Adder to Volumetric Rate		\$0.09628	\$2,456		\$0.10546	\$3,236	\$780	\$0.00918		
7											
8	Volumetric Charges Include CARB, GHG, and CSITMA										
9	Volumetric Rates \$/therm		\$0.16952			\$0.21108			\$0.04156	24.5%	
10											
11	Other Adjustments:										
12	SDFFD										
13	Credit for CSIIMA Exempt Customers \$/th		(\$0.00162)			(\$0.00183)			(\$0.00021)	13.0%	
14	Credit for CARB Fee Exempt Customers \$/th		(\$0.00137)			(\$0.00434)			(\$0.00297)	216.4%	
15	Credit for GHG Fee Exempt Customers \$/th		(\$0.09628)			(\$0.10546)			(\$0.00918)		
16	NCCI-Distribution Total	29,376	\$0.16284	\$4,783	35,337	\$0.20322	\$7,181	\$2,398	\$0.04038	24.8%	
17		47.500	¢0.02450	CO4			· ····			F	
18	NCCI-Transmission Total (1)	17,569	\$0.03159	\$601	13,965	\$0.05361	\$789.17	\$188	\$0.02203	69.7%	
19	NUCLI I ransmission Class Average	17,569	\$0.03423	\$601	13,965	\$0.05651	\$789				
20	Total Noncore Col	46,945	\$0.11471	\$5,385	49,302	\$0.16166	\$7,970	\$2,585	\$0.04696	40.9%	
21											
22	ELECTRIC GENERATION										
23				_							
24	Small EG Distribution Level Service (a Sempra-Wide rate) exclud	e CARB, GHG	i, and CSIIM	<u>A</u>							
25	Customer Charge, \$/month	69	\$50.00	\$41	80	\$50.00	\$48	\$7	\$0.00	0.0%	
26	Volumetric Rate \$/therm	24,662	\$0.17395	\$4,290	31,429	\$0.18074	\$5,680	\$1,391	\$0.01	3.9%	
27											
28	Large EG Distribution Level Service (a Sempra-Wide rate) exclud	<u>e CARB, GHG</u> I	and CSITM	<u>A</u>							
29	Customer Charge, \$/month	44,000	\$0.00	64.007		\$0.00			\$0.00		
30	Volumetric Rate (Incl 1105) \$/th	44,206	\$0.09924	\$4,387	40,227	\$0.11481	\$4,618	\$231	\$0.02	15.7%	
31	EC Distribution evolute CADE & CHC Fee CRITMA	69 967	CO 10650	¢0 710	74.050	CO 44440	640.047	64.000	60.00	44.400	
32	EG Distribution exclude CARB & GHG Fee, CSHWA	00,007	30.12059	⊅0, / 10	/1,656	\$0.14440	\$10,347	\$1,629	\$0.02	14.1%	
33											
34	CARD Fee Cast Adda Card		60 00127	624							
35	CARD Fee Cost Adder - Small	24,560	\$0.00137 60.00137	004 004	31,429	\$0.00434	\$136	\$103	\$0.00297		
36	CARD Fee Cost Adder - Large	44,200	50.00137	106	40,227	\$0.00434	\$1/4				
37	GHG Fee Cost Adder - Small	23,000	\$0.09626 60.00C20	92,200 01.140	30,020	\$0.10546	\$3,166	\$898	\$0.00918		
38	GRG Fee Cost Adder - Large	11,921	\$0.09626	\$1,140	10,848	\$0.10546	\$1,144			7.00/	
37	EG-DISTINUTION THEFT INCLOARD & GHG FEE, EXCLOSITIVA		\$0.27 160 ©0.40090			\$0.29054			\$0.01894	7.0%	
38	EG-Distribution her 2 Inci CARB & GRG Fee, EXci CSHWA	C0.0C7	\$0.19669 C0.177CC	010,000	74.050	\$0.22461		00.740	\$0.02772	14.1%	
39	Condition CADD For Example Contemport Children CAD	00,007	30.17730 (C0.00427)	\$12,220	/1,656	\$0.20888	\$14,968	\$2,740	\$0.03132	17.6%	
40	Credit for CARB Fee Exempt Customers \$/th		(\$0.00137)			(\$0.00434)					
41	Credit for GHG Fee Exempt Customers a/th		(30.09626)			(\$0.10546)					
42	EC Transmission Lauri Cracico, Evol CADD & CUC for & COTMA	404 202	60.00050	C12 102	005.045					70.004	
43	EC Transmission Level Service LICI CARD & GRU IEE & COTIMA	401,303	00.02009 ©0.00127	013,192 004	225,945	\$U.U4955	\$11,194	(\$1,998)	\$U.U2U95	13.3%	
44	EC Transmission Level Service - CARD	39,504	00.00137	004 000	1,223	\$0.00224	\$16	(\$58)	\$0.00087	63.2%	
45		2,303	40.09020	∂200 ©000	005.015	\$0.10546	50				
46	EG Transmission Level Service - SGIP	461,363	\$0.00057	\$263	225,945	\$0.00014	\$31	I			
41	EG Transmission Level Service Incl CARD & GEG Fee & CSITMA	461 362	\$0.02000	\$13 70F	225.045	£0.04075	644.044				
40	LO manomission Level Genice - Average (1)	401,303	₩0.02330	ψ10,100	220,945	au.u4975	ə11,241				
49	TOTAL ELECTRIC GENERATION	530 230	\$0.04908	\$26 023	207 222	F	* 20 000		* * ****	70 .00	
50		330,230	20.04000	420,02J	297,600	\$0.08807	\$26,209	\$186	\$0.03899	/9.4%	

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 Joing 20
 30,020
 30,0300
 320,023
 297,600
 \$0,08807

 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.

		Transmi	ssion Level S <u>San Di</u> e	TABLE 6 ervice Gas ego Gas & E 08/28/23	Transportatio <u>lectric</u>	n Rates				
			Janu	ary, 2024 R	ates					
		At Present Rates At Proposed Rates						Changes		
		Mar-1-22 Volumes mtherms	Average Rate \$/therm	Mar-1-22 Revenues \$000's	Jan-1-24 Volumes mtherms	Average Rate \$/therm	Jan-1-24 Revenues \$000's	Revenues \$000's	Rates \$/therm	Rate change %
1	Transmission Level Service Rate Excluding CSITMA, CARB, and G	HG Fees	D	U	U	E.	Г	0	п	
2	Reservation Service Option (RS):									
3	Daily Reservation rate \$/th/day Usage Charge for RS \$/th		\$0.01077 \$0.01282			\$0.02374 \$0.01266			\$0.01297 (\$0.00016)	120.5% -1.3%
5									(********/	
6	Class Average Volumetric Rate (CA)									
7	Volumetric Rate \$/th		\$0.01594 \$0.01282			\$0.03719 \$0.01266			\$0.02125 (\$0.00016)	133.3%
9	Class Average Volumetric Rate CA \$/th		\$0.01282			\$0.04984			\$0.02109	73.3%
10	5									
11	115% CA (for NonBypass Volumetric NV) \$/th		\$0.03307			\$0.05732			\$0.02425	73.3%
12	135% CA (for Bypass Volumetric BV) \$/th		\$0.03882			\$0.06729			\$0.02847	73.3%
14	Average Transmission Level Service	478,932	\$0.02859	\$13,695	239,910	\$0.04955	\$11,886	(\$1,808)	\$0.02095	73.3%
15										
16	C&I Rate Include CSITMA, CARB, and GHG Fees	17.000			10.005			(20)	60 00001	10.004
17	CARB Cost Adder to Usage Rate \$/th	57 153	\$0.00162	\$28 \$78	21 188	\$0.00183	\$26 \$47	(\$3)	\$0.00021	13.0%
19	GHG Cost Adder	3,446	\$0.09628	\$332	384	\$0.10546	\$40		\$0.00918	
20	SGIP Adder	17,569	\$0.00000	\$ 0	13,965	\$0.00000	\$0			
21	Reservation Service Option (RS):									
22 23 24	Daily Reservation rate \$/th/day Usage Charge for RS \$/th		\$0.01077 \$0.11209			\$0.02374 \$0.12218		\$0 \$0	\$0.01297 \$0.01010	120.5% 9.0%
25	Class Average Volumetric Rate (CA)									
26	Volumetric Rate \$/th		\$0.01594			\$0.03719		\$0	\$0.02125	133.3%
27	Usage Charge for CA \$/th		\$0.11209			\$0.12218		\$0	\$0.01010	9.0%
29	Class Average Volumenic Nate CA With		ψ 0 . 12003			ψ0.13331		Ψ	Q0.03133	24.370
30	115% CA (for NonBypass Volumetric NV) \$/th		\$0.13234			\$0.16685		\$0	\$0.03451	26.1%
31	135% CA (for Bypass Volumetric BV) \$/th		\$0.13809			\$0.17682		\$0	\$0.03873	28.0%
32	Other Adjustments:									
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	1	(\$0.09628)		T	(\$0.10546)		1	(\$0.00918)	
37	EG Rate Include CARB & GHG Fees, excludes CSITMA									
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):		CO 01077			60.00074			60.04007	100 50/
43	Usage Charge for RS \$/th		\$0.01077 \$0.11104			\$0.02374 \$0.12049		\$0 \$0	\$0.01297	8.5%
45			QQ . 11104			00.12040			00.00040	0.070
46	Class Average Volumetric Rate (CA)									
47	Volumetric Rate \$/th		\$0.01594			\$0.03719		\$0	\$0.02125	133.3%
48 49	Class Average Volumetric Rate, CA \$/th		\$0.11104			\$0.12049		\$U \$0	\$0.00945	0.5% 24.2%
50			Q0.12000			00.10100			00.00010	24.270
51	115% CA (for NonBypass Volumetric NV) \$/th		\$0.13129			\$0.16515		\$0	\$0.03387	25.8%
52	135% CA (for Bypass Volumetric BV) \$/th		\$0.13704			\$0.17512		\$0	\$0.03808	27.8%
53 54	Other Adjustments									
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			** *****			A	A		A	
58	Average Transmission Level Service	478,932	\$0.03006	\$14,396	239,910	\$0.05015	\$12,030	(\$2,366)	\$0.02009	66.8%

See footnotes Table 1

APPENDIX C

In D.17-09-035, the Commission defines marginal customer cost as the cost of providing service to an additional customer.³⁸ 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 . . ."³⁹ Algebraically, this can be expressed in basic marginal cost definition as follows:

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

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:

 $NC0 method customer capital cost = \frac{\Delta in total capital cost for all new customers}{all customers (existing and new)}$

As the above equation shows, the denominator captures <u>all customers</u>, not <u>a change in the</u> <u>number of customers</u>, <u>let alone change in one additional customer</u>. 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.

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

³⁹ 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).⁴⁰

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."⁴¹ 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."⁴² 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."⁴³

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 capitalrelated marginal customer costs. Accordingly, in such situations one must somehow include

⁴⁰ 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.

⁴¹ 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: <u>https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M170/K336/170336343.PDF</u>.

⁴² *Id.*

⁴³ *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?⁴⁴

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.

⁴⁴ 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:

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

Where,⁴⁵

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

The ARM1 method adjusts the Rental capital-related marginal customer cost downward by an adjustment factor (r1) which 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 * $\left(\frac{RECC}{All residential customers}\right)$ (2)

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

⁴⁵ 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.

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

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

$$ARM1 MCAC = TSM \ ratebase \ value \ * \frac{RECC}{All \ residential \ customers} \tag{4}$$

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.⁴⁶

ii. ARM2

ARM2 is mathematically depicted as follows:

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

where,

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

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

⁴⁶ 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:

ARM2 MCAC = TSM replacement cost new less depreciation

$$*\frac{RECC}{All residential customers}$$
(6)

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.