

Application: A.24-12-XXX
Exhibit No.: _____
Witness: Michael W. Foster

**PREPARED DIRECT TESTIMONY OF
MICHAEL W. FOSTER
ON BEHALF OF
SOUTHERN CALIFORNIA GAS COMPANY

(CHAPTER 8 AFFORDABILITY METRICS)**

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

December 20, 2024

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**PREPARED DIRECT TESTIMONY OF
MICHAEL W FOSTER
(AFFORDABILITY METRICS)**

I. OVERVIEW

Pursuant to Decision (D.) 22-08-023, Ordering Paragraphs (OPs) 5 and 6, SoCalGas is required to submit Affordability Metrics in the initial filing of a proceeding with a revenue increase estimated to exceed one percent (1%) of currently authorized revenues systemwide. SoCalGas's Angeles Link Phase 2 cost recovery would result in an increase to total Gas Bundled Revenues of \$117.7 million,¹ or 1.8%, in 2027 compared to current revenues.² This testimony provides:

- a) Essential usage bills by climate zone;
- b) Average usage bills by climate zone;
- c) Affordability Ratio 50 (AR50) by climate zone;³
- d) Affordability Ratio 20 (AR20) by climate zone;
- e) Hours required to work at minimum wage to pay monthly gas bill; and
- f) For climate zones with Areas of Affordability Concern (AAC) as defined in the most recent annual Affordability Report,⁴ AR20 by climate zones subdivided by Public Use Microdata Area (PUMA).

This testimony also presents the following additional analyses: (1) inclusion of the CARE discounts for low-income households; and (2) energy burden analysis to isolate the impact of the gas revenue requirements requested. SoCalGas sought inclusion of these metrics as part of the official affordability metrics developed in Phase 1 of the Affordability Order Instituting Rulemaking (OIR). While the Commission ultimately did not adopt these additional metrics,

¹ Amount includes franchise fees & uncollectibles (FF&U).

² Revenue requirements effective October 1, 2024 per SoCalGas Advice Letter (AL) 6369-G, *available at*: <https://tariffsprd.socalgas.com/view/filing/?utilId=SCG&bookId=GAS&flngKey=4834&flngId=6369-G&flngStatusCd=Approved>.

³ SoCalGas has three climate zones.

⁴ CPUC, *2021-2022 Annual Affordability Report* (October 2023), *available at*: <https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/affordability-proceeding/2021-2022/2021-and-2022-annual-affordability-report.pdf>.

1 these analyses can provide a rounded view of the potential impacts to customers and are
2 important supplemental metrics which complement the affordability metrics adopted in D.22-08-
3 023.

4 **II. ESSENTIAL AND AVERAGE BILLS**

5 **A. Essential Usage Bills**

6 Essential usage bills represent the average monthly bill a customer would pay for their
7 essential energy, water, or telecommunications usage. For gas, average monthly essential usage
8 has been defined as the baseline allocation of gas in a given climate zone.⁵ To calculate the
9 average monthly essential usage bills, SoCalGas multiplied the baseline allowance for each
10 climate zone for individually metered gas residential customers by the residential baseline rate.⁶
11 Additionally, the essential usage bills include charges for gas procurement, public purpose
12 programs, and applicable taxes.⁷ SoCalGas then weighted the metrics by the number of
13 households in each climate zone to derive a system average value.⁸ Essential usage bills are
14 used as the numerator to calculate the Affordability Ratio (AR) and Hours at Minimum Wage
15 (HM) metrics.

16 To understand the impact that SoCalGas's Angeles Link Phase 2 gas revenue requirement
17 request has on the affordability metrics, SoCalGas has calculated the gas essential usage bills
18 using (i) rates effective October 1, 2024,⁹ and (ii) rates based on the proposed incremental gas
19 revenue requirement for each of the years that exceeded one percent of currently authorized
20 systemwide revenues. While only the 2026 and 2027 forecast revenue requirement exceed the
21 1% threshold, we opted to include all years that are part of the Phase 2 cost recovery (2026, 2027

⁵ Baseline quantities vary by on climate zone and season (summer vs winter).

⁶ Schedule GR, Domestic Natural Gas Service

⁷ SoCalGas Advice Letter 6216-G for Public Purposes Program Surcharges, *available at:*
<https://tariffsprd.socalgas.com/view/filing/?utilId=SCG&bookId=GAS&flngKey=4636&flngId=6216-G&flngStatusCd=Approved>, *See* SoCalGas Advice Letter 6325-G for Commodity update, *available at:*
<https://tariffsprd.socalgas.com/view/filing/?utilId=SCG&bookId=GAS&flngKey=4780&flngId=6325-G&flngStatusCd=Effective>

⁸ The number of households by climate zone is based on 2024 recorded currently active individually metered residential customers.

⁹ Current rates effective October 1, 2024 per SoCalGas AL 6369-G.

1 and 2028) to show the comparison in essential bills. The resulting gas essential usage bills are
 2 summarized in Table 1.¹⁰

TABLE 1
MONTHLY GAS ESSENTIAL USAGE BILLS (NON-CARE)

Climate Zone	2024	2026			2027			2028			Total Change Over Current	
	Bill (\$)	Bill (\$)	Δ (\$)	Δ (%)	Bill (\$)	Δ (\$)	Δ (%)	Bill (\$)	Δ (\$)	Δ (%)	Δ (\$)	Δ (%)
Zone 1, Coastal/ Inland Area	\$46.60	\$46.82	\$0.22	0.5%	\$46.89	\$0.07	0.2%	\$46.76	(\$0.13)	-0.3%	\$0.16	0.3%
Zone 2, Desert	\$49.61	\$49.85	\$0.24	0.5%	\$49.92	\$0.08	0.2%	\$49.78	(\$0.14)	-0.3%	\$0.17	0.4%
Zone 3, Mountains	\$69.47	\$69.81	\$0.34	0.5%	\$69.92	\$0.11	0.2%	\$69.72	(\$0.20)	-0.3%	\$0.25	0.4%
Average	\$46.98	\$47.20	\$0.22	0.5%	\$47.27	\$0.07	0.2%	\$47.14	(\$0.13)	-0.3%	\$0.16	0.3%

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¹⁰ The calculation of the essential usage bills does not incorporate the annual gas residential California Climate Credits (CCC).

B. Average Usage Bills

The gas average usage bills are summarized in Table 2.¹¹ The average usage bills represent a typical residential usage bill for the SoCalGas territory. To calculate average usage bills, SoCalGas multiplied the five-year average usage for each climate zone for individually metered gas residential customers by the applicable residential baseline and non-baseline rate.¹² Additionally, the average usage bills include charges for gas procurement, public purpose programs, and applicable taxes.¹³ SoCalGas then weighted the metrics by the number of households in each climate zone to derive a system average value.¹⁴ While essential usage is based on the allotted baseline quantity, average usage is based on the average of recent five calendar years' recorded gas usage.

**TABLE 2
MONTHLY GAS AVERAGE USAGE BILLS (NON-CARE)**

Climate Zone	2024	2026		2027			2028			Total Change Over Current		
	Bill (\$)	Bill (\$)	Δ (\$)	Δ (%)	Bill (\$)	Δ (\$)	Δ (%)	Bill (\$)	Δ (\$)	Δ (%)	Δ (\$)	Δ (%)
Zone 1, Coastal/ Inland Area	\$71.10	\$71.44	\$0.34	0.5%	\$71.55	\$0.11	0.2%	\$71.35	(\$0.20)	-0.3%	\$0.25	0.4%
Zone 2, Desert	\$72.53	\$72.88	\$0.35	0.5%	\$72.99	\$0.11	0.2%	\$72.78	(\$0.21)	-0.3%	\$0.26	0.4%
Zone 3, Mountains	\$92.78	\$93.24	\$0.46	0.5%	\$93.39	\$0.15	0.2%	\$93.12	(\$0.27)	-0.3%	\$0.34	0.4%
Average	\$71.33	\$71.67	\$0.34	0.5%	\$71.78	\$0.11	0.2%	\$71.58	(\$0.20)	-0.3%	\$0.25	0.4%

¹¹ The calculation of the average usage bills does not incorporate the annual gas residential CCC.

¹² Schedule GR, Domestic Natural Gas Service.

¹³ SoCalGas Advice Letter 6216-G for Public Purposes Program Surcharges, *available at:* <https://tariffsprd.socalgas.com/view/filing/?utilId=SCG&bookId=GAS&fngKey=4636&fngId=6216-G&fngStatusCd=Approved>, *See* SoCalGas Advice Letter 6325-G for Commodity update, *available at:* <https://tariffsprd.socalgas.com/view/filing/?utilId=SCG&bookId=GAS&fngKey=4780&fngId=6325-G&fngStatusCd=Effective>

¹⁴ The number of households by climate zone is based on 2024 recorded currently active individually metered residential customers.

1 **III. AFFORDABILITY METRICS**

2 **A. Hours at Minimum Wage**

3 The HM metric represents the number of hours a household that earns the minimum wage
 4 would need to work per month to pay their monthly essential usage bill.¹⁵ It is calculated by
 5 dividing the essential usage bill by the hourly minimum wage.¹⁶ The HM formula for gas
 6 utilities is shown below:

7
$$HM = \text{essential gas usage bill} / \text{hourly minimum wage}$$

8 SoCalGas is presenting one set of HM metrics for its service territory. As of 2024, the
 9 minimum wage for the County of Los Angeles is \$17.27/hour.¹⁷ For purposes of forecasting
 10 HM minimum wage for 2026-2028, SoCalGas has used the five-year average increase in
 11 Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W).¹⁸ The resulting
 12 HM metrics for each climate zone are presented in Table 3.

13 **TABLE 3**
 14 **HM METRIC FOR GAS CUSTOMERS – SOCALGAS TERRITORY (NON-CARE)**

	2024	2026		2027			2028			Total Change Over Current		
Climate Zone	Hours	Hours	Δ (hrs)	Δ (%)	Hours	Δ (hrs)	Δ (%)	Hours	Δ (hrs)	Δ (%)	Δ (hrs)	Δ (%)
Zone 1, Coastal/ Inland Area	2.70	2.51	-0.19	-6.9%	2.42	-0.09	-3.6%	2.32	-0.10	-4.0%	-0.38	-13.9%
Zone 2, Desert	2.87	2.67	-0.20	-6.9%	2.58	-0.10	-3.6%	2.47	-0.10	-4.0%	-0.40	-13.9%
Zone 3, Mountains	4.02	3.75	-0.28	-6.9%	3.61	-0.14	-3.6%	3.46	-0.15	-4.1%	-0.56	-13.9%
Average	2.72	2.53	-0.19	-6.9%	2.44	-0.09	-3.6%	2.34	-0.10	-4.0%	-0.38	-13.9%

15 ¹⁵ D.20-07-032 at 11.

16 ¹⁶ *Id.* at 47.

17 ¹⁷ Effective July 1, 2024, the County of Los Angeles minimum wage is \$17.27/hour; *see*, Department of Consumer and Business Affairs – Los Angeles County, *Basics for Workers*, available at: <https://dcba.lacounty.gov/workers/>.

18 ¹⁸ Using 5-year average of LA-OC Urban CPI (Sept 2019-August 2024) annual percent change for 2025 to 2028 (3.9%); *see*, U.S Bureau of Labor Statistic, *BLS Data Viewer*, available at: <https://data.bls.gov/dataViewer/view/timeseries/CWURS49ASA0>.

- 1) Gas essential bills are based on the essential usage for non-CARE residential customers by climate zone. Gas essential bills do not include the annual California Climate Credit (CCC).
- 2) Other commodity bills (electric, telecommunications and water) are pre-populated by the AR Calculator.
- 3) Current metrics are based upon current gas rates effective October 1, 2024.
- 4) Presented metrics are based on SoCalGas’s proposed Angeles Link Phase 2 gas revenue requirements for each year (2026-2028).
- 5) The Gas AR50 and AR20 metrics are meant to represent the percentage of income after housing and all other essential commodity (electric, water and telecommunications) expenses that essential gas bills represent for households at the 50th lowest (AR50) and 20th lowest (AR20) income percentile, respectively.

The resulting individual gas AR50 and AR20 metrics are presented in Tables 4 and 5, respectively.²³

**TABLE 4
AR50 METRIC FOR GAS CUSTOMERS (NON-CARE)**

	Current 2024	2026		2027		2028		Total Change Over Current
Climate Zone	AR50	AR50	Δ (%)	AR50	Δ (%)	AR50	Δ (%)	Δ (%)
Zone 1, Coastal/ Inland Area	0.88%	0.84%	-4.7%	0.81%	-3.1%	0.78%	-3.5%	-11.0%
Zone 2, Desert	1.05%	1.01%	-3.7%	0.99%	-2.5%	0.96%	-2.9%	-8.9%
Zone 3, Mountains	1.23%	1.17%	-5.1%	1.13%	-3.4%	1.09%	-3.8%	-11.8%
Average	0.90%	0.86%	-4.6%	0.83%	-3.1%	0.80%	-3.5%	-10.8%

²³ The results in these tables reflect the increases in gas essential bills along with the embedded calculator assumptions such as inflation for income, housing, and other utility bills.

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**TABLE 5
AR20 METRIC FOR GAS CUSTOMERS (NON-CARE)**

	2024	2026		2027		2028		Total Change Over Current
Climate Zone	AR20	AR20	Δ (%)	AR20	Δ (%)	AR20	Δ (%)	Δ (%)
Zone 1, Coastal/ Inland Area	9.10%	9.41%	3.4%	9.71%	3.2%	10.03%	3.2%	10.2%
Zone 2, Desert	3.81%	3.71%	-2.6%	3.65%	-1.6%	3.58%	-2.0%	-6.1%
Zone 3, Mountains	4.82%	4.64%	-3.8%	4.55%	-1.9%	4.45%	-2.3%	-7.8%
Average	8.61%	8.88%	3.1%	9.15%	3.0%	9.42%	3.0%	9.5%

3

IV. AREAS OF AFFORDABILITY CONCERN (AAC)

Areas of affordability concern (AAC) are pockets within the state where lower-income Californians spend, on a percentage basis, much more of their available budget on essential utility service than the majority of Californians. Based on the most recent annual Affordability Report, an AAC for gas service is designated by areas where the AR20 is in excess of 10%.²⁴

For example, if the AR20 is greater than 10% then it means for households with income in the 20th percentile, the cost of average essential gas utility bill exceeds 10% of their income after accounting for other non-discretionary expenses, including housing and other essential utilities.

Table 6 presents the PUMAs where the Gas AR20 is greater than 10% for either the current year or any projected year in the proposed cost recovery for Angeles Link Phase 2 (2026-2028), making them AACs.²⁵

²⁴ CPUC, *2021/2022 Annual Affordability Report* (October 2023) at 25, available at: <https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/affordability-proceeding/2021-2022/2021-and-2022-annual-affordability-report.pdf>.

²⁵ The results in this table reflect the increases in gas essential bills along with the embedded calculator assumptions such as inflation for income, housing, and other utility bills.

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**TABLE 6
AAC – PUMA’S WITH GAS AR20 >10% (NON-CARE)**

PUMA #	County / City	Climate Zone	# of Housing Units	2024	2026	2027	2028	Total Impact (2028 minus 2024)
03721	Los Angeles County (North)--LA City (Northeast/North Hollywood & Valley Village) PUMA	SCG 1	60,113	100.0%	100.0%	100.0%	100.0%	0.0%
03722	Los Angeles County (Northwest)--LA City (North Central/Van Nuys & North Sherman Oaks) PUMA	SCG 1	66,340	16.3%	16.9%	17.3%	17.7%	1.5%
03723	Los Angeles County (North)--LA City (North Central/Mission Hills & Panorama City) PUMA	SCG 1	42,981	10.9%	11.0%	11.0%	11.0%	0.1%
03727	Los Angeles County (Central)--LA City (Central/Pacific Palisades) PUMA	SCG 1	83,690	11.8%	12.8%	13.4%	14.1%	2.3%
03728	Los Angeles County (Southwest)--Santa Monica City PUMA	SCG 1	59,802	11.0%	11.4%	11.7%	12.0%	1.0%
03729	Los Angeles County (West Central)--LA City (West Central/Westwood & West Los Angeles) PUMA	SCG 1	103,670	30.4%	38.7%	45.8%	57.2%	26.8%
03730	Los Angeles County (West Central)--LA City (Central/Hancock Park & Mid-Wilshire) PUMA	SCG 1	85,302	9.6%	9.8%	9.9%	9.9%	0.3%
03731	Los Angeles County (Central)--West Hollywood & Beverly Hills Cities PUMA	SCG 1	69,091	19.0%	21.2%	22.8%	24.7%	5.7%
03732	Los Angeles County (Central)--LA City (East Central/Hollywood) PUMA	SCG 1	92,097	52.9%	69.5%	85.2%	97.6%	44.6%

PUMA #	County / City	Climate Zone	# of Housing Units	2024	2026	2027	2028		Total Impact (2028 minus 2024)
03733	Los Angeles County (Central)--LA City (Central/Koreatown) PUMA	SCG 1	51,641	100.0%	100.0%	100.0%	100.0%		0.0%
03734	Los Angeles County--LA City (East Central/Silver Lake, Echo Park & Westlake) PUMA	SCG 1	84,863	10.5%	10.4%	10.4%	10.3%		-0.2%
03738	Los Angeles County (Central)--El Monte & South El Monte Cities PUMA	SCG 1	35,270	18.7%	18.5%	18.4%	18.3%		-0.3%
03742	Los Angeles County (Central)--Huntington Park City, Florence-Graham & Walnut Park PUMA	SCG 1	29,088	10.2%	10.1%	10.1%	10.0%		-0.2%
03744	Los Angeles County (Central)--LA City (East Central/Central City & Boyle Heights) PUMA	SCG 1	65,418	100.0%	100.0%	100.0%	100.0%		0.0%
03746	Los Angeles County--LA City (Central/Univ. of Southern California & Exposition Park) PUMA	SCG 1	36,301	100.0%	100.0%	100.0%	100.0%		0.0%
03750	Los Angeles County (South Central)--LA City (South Central/Westmont) PUMA	SCG 1	57,870	11.1%	11.0%	10.9%	10.8%		-0.4%
03751	Los Angeles County (South Central)--LA City (South Central/Watts) PUMA	SCG 1	41,679	100.0%	100.0%	100.0%	100.0%		0.0%

1 **V. SUPPLEMENTAL CARE ANALYSIS**

2 The affordability metrics presented above utilize non-CARE rates to calculate the HM
3 and AR metrics. However, the CARE program, which offers a 20% effective discount on gas
4 bills, should be taken into consideration in determining a low-income customer’s cost of
5 essential utility service.²⁶ Excluding the CARE discount inflates the true cost of essential utility
6 charges and provides an inaccurate representation of affordability. As the 2021/2022
7 Affordability Report acknowledges, when low-income discounts are considered for purposes of
8 assessing affordability, there is a “sizable improvement in utility affordability for customers who
9 are enrolled in the programs in the most vulnerable areas.”²⁷

10 Accordingly, because CARE discounts are relevant to the issue of affordability,
11 SoCalGas provides supplemental HM and AR20 metrics that include the CARE discount in gas
12 bills in Tables 7 and 8.²⁸ In addition, SoCalGas provides the AAC PUMAs from Section IV
13 with the CARE discount included in Table 9.

²⁶ As of December 2023, SoCalGas has achieved a 110% CARE penetration rate and thus it is reasonable to assume that most income-eligible customers are enrolled in the CARE program discount. See, A.19-11-003, *Amended Annual Report Of Southern California Gas Company On Low Income Assistance Programs For Program Year 2023, Through December 31, 2023* (June 13, 2024) at Appendix B, CARE Table 2; available at: <https://liob.cpuc.ca.gov/wp-content/uploads/sites/14/2024/06/A.19-11-006-SoCalGas-Amended-2023-ESA-CARE-Annual-Report-Public-Version.pdf>.

²⁷ 2021/2022 Annual Affordability Report at 41.

²⁸ The results in these tables reflect the increases in gas essential bills along with the embedded calculator assumptions such as inflation for income, housing, and other utility bills.

**TABLE 7
HM METRIC FOR GAS CUSTOMERS – SOCALGAS TERRITORY (INCLUDING CARE
DISCOUNT)**

	2024		2026		2027			2028			Total Change Over Current	
Climate Zone	Hours	Hours	Δ (hrs)	Δ (%)	Hours	Δ (hrs)	Δ (%)	Hours	Δ (hrs)	Δ (%)	Δ (hrs)	Δ (%)
Zone 1, Coastal/ Inland Area	1.96	1.82	-0.14	-6.9%	1.76	-0.07	-3.6%	1.69	-0.07	-4.0%	-0.27	-13.9%
Zone 2, Desert	2.28	2.12	-0.16	-6.9%	2.05	-0.08	-3.6%	1.96	-0.08	-4.1%	-0.32	-13.9%
Zone 3, Mountains	3.14	2.92	-0.22	-6.9%	2.82	-0.11	-3.6%	2.70	-0.11	-4.1%	-0.44	-13.9%
Average	1.99	1.85	-0.14	-6.9%	1.79	-0.07	-3.6%	1.71	-0.07	-4.0%	-0.28	-13.9%

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**TABLE 8
AR20 METRIC FOR GAS CUSTOMERS (INCLUDING CARE DISCOUNT)**

	2024	2026		2027		2028		Total Change Over Current
Climate Zone	AR20	AR20	Δ (%)	AR20	Δ (%)	AR20	Δ (%)	Δ (%)
Zone 1, Coastal/ Inland Area	7.66%	7.89%	3.0%	8.11%	2.8%	8.49%	4.7%	10.8%
Zone 2, Desert	3.02%	2.94%	-2.6%	2.90%	-1.6%	2.84%	-2.0%	-6.1%
Zone 3, Mountains	3.76%	3.62%	-3.8%	3.55%	-1.9%	3.47%	-2.3%	-7.8%
Average	7.23%	7.42%	2.7%	7.62%	2.6%	7.96%	4.5%	10.2%

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**TABLE 9
AAC PUMA's INCLUDING CARE DISCOUNTS**

PUMA #	County / City	Climate Zone	# of Housing Units	2024	2026	2027	2028	Total Impact (2028 minus 2024)
03721	Los Angeles County (North)--LA City (Northeast/North Hollywood & Valley Village) PUMA	SCG 1	60,113	100.0%	100.0%	100.0%	100.0%	0.0%
03722	Los Angeles County (Northwest)--LA City (North Central/Van Nuys & North Sherman Oaks) PUMA	SCG 1	66,340	12.1%	12.5%	12.8%	13.1%	1.1%
03727	Los Angeles County (Central)--LA City (Central/Pacific Palisades) PUMA	SCG 1	83,690	8.5%	9.3%	9.7%	10.3%	1.7%
03729	Los Angeles County (West Central)--LA City (West Central/Westwood & West Los Angeles) PUMA	SCG 1	103,670	22.0%	28.1%	33.4%	41.7%	19.6%
03731	Los Angeles County (Central)--West Hollywood & Beverly Hills Cities PUMA	SCG 1	69,091	13.8%	15.4%	16.6%	18.0%	4.2%
03732	Los Angeles County (Central)--LA City (East Central/Hollywood) PUMA	SCG 1	92,097	38.7%	50.7%	62.2%	82.5%	43.8%
03733	Los Angeles County (Central)--LA City (Central/Koreatown) PUMA	SCG 1	51,641	100.0%	100.0%	100.0%	100.0%	0.0%
03738	Los Angeles County (Central)--El Monte & South El Monte Cities PUMA	SCG 1	35,270	16.9%	16.8%	16.8%	16.7%	-0.2%
03744	Los Angeles County (Central)--LA City (East Central/Central City & Boyle Heights) PUMA	SCG 1	65,418	100.0%	100.0%	100.0%	100.0%	0.0%
03746	Los Angeles County--LA City (Central/Univ. of Southern California & Exposition Park) PUMA	SCG 1	36,301	100.0%	100.0%	100.0%	100.0%	0.0%
03751	Los Angeles County (South Central)--LA City (South Central/Watts) PUMA	SCG 1	41,679	100.0%	100.0%	100.0%	100.0%	0.0%

1 Tables 7 and 8 demonstrate that SoCalGas’s CARE program is effective in improving
2 affordability for its low-income customers. Table 7 shows that incorporating the CARE discount
3 results in an average HM metric of 1.79 hours in peak year 2027 for customers in SoCalGas’s
4 service territory rather than an average HM metric of 2.44 hours in 2027 as presented in Table 3,
5 reflecting fewer hours worked at minimum wage to pay monthly gas bills.

6 Comparing Table 8 with Table 5 shows that SoCalGas’s low-income CARE program
7 improves affordability by lowering AR ratios across the years. In addressing AAC, Table 6
8 shows 17 PUMA areas with an AR ratio greater than 10% at some point during 2024, 2026, 2027
9 or 2028. However, when CARE discounts are included in the AR calculations, Table 9 shows
10 that the number of AACs declines to 11.

11 **VI. SUPPLEMENTAL ENERGY BURDEN ANALYSIS**

12 The energy burden (EB) metric is the percentage of income spent on an energy bill or
13 bills. Although the Commission declined to adopt this metric in the Affordability OIR, the
14 Commission specifically found that the Decision Implementing the Affordability Metrics (D.22-
15 08-023) “does not preclude stakeholders from generating variations on or alternatives to the
16 adopted metrics ... in Commission proceedings.”²⁹ The EB metric is an additional,
17 complementary metric that should be considered in conjunction with the required affordability
18 metrics addressed above. The EB metric is a simple, easily understood calculation that isolates
19 the impact of SoCalGas’s cost recovery request for Angeles Link Phase 2 and excludes the
20 uncertainty posed by non-discretionary expenses outside the Commission’s control (e.g., housing
21 costs). In addition, it allows for greater ease of comparison across utility services. The gas EB
22 formula is shown below:

$$23 \text{Gas EB} = \text{Gas Essential Bill} / \text{Income}$$

24
25
26 The AR metrics presented above remove housing and essential utility/service bills from
27 total income. The EB metric does not remove any bills or expenses from total income. By not
28 removing non-discretionary expenses from total income, the EB metric is able to better present

²⁹ D.22-08-023 at 77 (FOF 17).

1 the impact on a specific utility bill—here, the gas bill—and create a metric that is comparable
 2 across utility services. The EB metric further eliminates the impact of housing costs, which can
 3 vary across SoCalGas’s service territory and between income levels.

4 Although the EB metric typically is used to represent median-income households and
 5 utilize average usage, SoCalGas used essential usage bills to make an apples-to-apples
 6 comparison to the affordability ratio metrics discussed above. By utilizing the AR calculator and
 7 setting the electric, water, and telecommunication bill inputs as well as the housing and propane
 8 cost embedded assumptions to zero, SoCalGas was able to calculate gas EB metrics for a median
 9 income household (EB50) and a low-income household (EB20).

10 The resulting gas EB50 and EB20 (both Non-CARE and CARE) metrics are presented in
 11 Tables 10, 11 and 12, respectively. In addition, the areas of affordability concern from Tables 6
 12 and 9 are reproduced below in Tables 13 and 14 using EB metric.

13 **TABLE 10**
 14 **EB50 METRIC FOR GAS CUSTOMERS (NON-CARE)**

	Current 2024	2026		2027		2028		Total Change Over Current
Climate Zone	EB50	EB50	Δ (%)	EB50	Δ (%)	EB50	Δ (%)	Δ (%)
Zone 1, Coastal/ Inland Area	0.63%	0.59%	-5.4%	0.57%	-3.4%	0.55%	-3.9%	-12.2%
Zone 2, Desert	0.79%	0.75%	-4.1%	0.73%	-2.8%	0.71%	-3.2%	-9.8%
Zone 3, Mountains	0.93%	0.88%	-5.7%	0.84%	-3.7%	0.81%	-4.1%	-12.9%
Average	0.64%	0.61%	-5.3%	0.59%	-3.4%	0.57%	-3.8%	-11.9%

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**TABLE 11
EB20 METRIC FOR GAS CUSTOMERS (NON-CARE)**

	2024	2026		2027		2028		Total Change Over Current
Climate Zone	EB20	EB20	Δ (%)	EB20	Δ (%)	EB20	Δ (%)	Δ (%)
Zone 1, Coastal/ Inland Area	1.61%	1.52%	-5.5%	1.47%	-3.3%	1.42%	-3.7%	-11.9%
Zone 2, Desert	1.87%	1.79%	-4.1%	1.74%	-2.7%	1.69%	-3.1%	-9.5%
Zone 3, Mountains	2.30%	2.17%	-5.7%	2.09%	-3.3%	2.01%	-3.8%	-12.4%
Average	1.64%	1.55%	-5.3%	1.50%	-3.2%	1.44%	-3.6%	-11.7%

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**TABLE 12
EB20 METRIC FOR GAS CUSTOMERS (INCLUDING CARE DISCOUNT)**

	2024	2026		2027		2028		Total Change Over Current
Climate Zone	EB20	EB20	Δ (%)	EB20	Δ (%)	EB20	Δ (%)	Δ (%)
Zone 1, Coastal/ Inland Area	1.17%	1.10%	-5.5%	1.07%	-3.3%	1.03%	-3.7%	-11.9%
Zone 2, Desert	1.48%	1.42%	-4.1%	1.38%	-2.7%	1.34%	-3.1%	-9.5%
Zone 3, Mountains	1.79%	1.69%	-5.7%	1.63%	-3.4%	1.57%	-3.8%	-12.3%
Average	1.20%	1.13%	-5.3%	1.10%	-3.2%	1.06%	-3.6%	-11.7%

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TABLE 13
AAC – PUMA’S WITH GAS AR20 >10%, USING ENERGY BURDEN (NON-CARE)

PUMA #	County / City	Climate Zone	# of Housing Units	2024	2026	2027	2028	Total Impact (2028 - Current)
03721	Los Angeles County (North)--LA City (Northeast/North Hollywood & Valley Village) PUMA	SCG 1	60,113	2.7%	2.5%	2.4%	2.3%	-0.3%
03722	Los Angeles County (Northwest)--LA City (North Central/Van Nuys & North Sherman Oaks) PUMA	SCG 1	66,340	2.2%	2.1%	1.9%	1.9%	-0.3%
03723	Los Angeles County (North)--LA City (North Central/Mission Hills & Panorama City) PUMA	SCG 1	42,981	2.3%	2.1%	2.1%	2.0%	-0.3%
03727	Los Angeles County (Central)--LA City (Central/Pacific Palisades) PUMA	SCG 1	83,690	1.4%	1.3%	1.2%	1.2%	-0.2%
03728	Los Angeles County (Southwest)--Santa Monica City PUMA	SCG 1	59,802	1.7%	1.6%	1.6%	1.5%	-0.2%
03729	Los Angeles County (West Central)--LA City (West Central/Westwood & West Los Angeles) PUMA	SCG 1	103,670	1.9%	1.7%	1.7%	1.6%	-0.2%
03730	Los Angeles County (West Central)--LA City (Central/Hancock Park & Mid-Wilshire) PUMA	SCG 1	85,302	1.8%	1.7%	1.6%	1.6%	-0.2%
03731	Los Angeles County (Central)--West Hollywood & Beverly Hills Cities PUMA	SCG 1	69,091	1.8%	1.7%	1.6%	1.6%	-0.2%
03732	Los Angeles County (Central)--LA City (East Central/Hollywood) PUMA	SCG 1	92,097	2.7%	2.6%	2.5%	2.4%	-0.3%

PUMA #	County / City	Climate Zone	# of Housing Units	2024	2026	2027	2028	Total Impact (2028 - Current)
03733	Los Angeles County (Central)--LA City (Central/Koreatown) PUMA	SCG 1	51,641	3.2%	3.0%	2.9%	2.8%	-0.4%
03734	Los Angeles County--LA City (East Central/Silver Lake, Echo Park & Westlake) PUMA	SCG 1	84,863	2.4%	2.3%	2.2%	2.1%	-0.3%
03738	Los Angeles County (Central)--El Monte & South El Monte Cities PUMA	SCG 1	35,270	2.0%	1.9%	1.9%	1.8%	-0.3%
03742	Los Angeles County (Central)--Huntington Park City, Florence-Graham & Walnut Park PUMA	SCG 1	29,088	2.3%	2.2%	2.1%	2.0%	-0.3%
03744	Los Angeles County (Central)--LA City (East Central/Central City & Boyle Heights) PUMA	SCG 1	65,418	4.0%	3.8%	3.6%	3.5%	-0.5%
03746	Los Angeles County--LA City (Central/Univ. of Southern California & Exposition Park) PUMA	SCG 1	36,301	3.4%	3.2%	3.1%	3.0%	-0.4%
03750	Los Angeles County (South Central)--LA City (South Central/Westmont) PUMA	SCG 1	57,870	2.7%	2.6%	2.5%	2.4%	-0.3%
03751	Los Angeles County (South Central)--LA City (South Central/Watts) PUMA	SCG 1	41,679	3.8%	3.6%	3.5%	3.4%	-0.5%

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**TABLE 14
AAC PUMA’S WITH GAS AR20 >10%, INCLUDING CARE DISCOUNTS, USING
ENERGY BURDEN**

PUMA #	County / City	Climate Zone	# of Housing Units	2024	2026	2027	2028	Total Impact (2028 - Current)
03721	Los Angeles County (North)--LA City (Northeast/North Hollywood & Valley Village) PUMA	SCG 1	60,113	1.9%	1.8%	1.8%	1.7%	-0.2%
03722	Los Angeles County (Northwest)--LA City (North Central/Van Nuys & North Sherman Oaks) PUMA	SCG 1	66,340	1.6%	1.5%	1.4%	1.4%	-0.2%
03727	Los Angeles County (Central)--LA City (Central/Pacific Palisades) PUMA	SCG 1	83,690	1.0%	0.9%	0.9%	0.9%	-0.1%
03729	Los Angeles County (West Central)--LA City (West Central/Westwood & West Los Angeles) PUMA	SCG 1	103,670	1.3%	1.3%	1.2%	1.2%	-0.2%
03731	Los Angeles County (Central)--West Hollywood & Beverly Hills Cities PUMA	SCG 1	69,091	1.3%	1.2%	1.2%	1.1%	-0.2%
03732	Los Angeles County (Central)--LA City (East Central/Hollywood) PUMA	SCG 1	92,097	2.0%	1.9%	1.8%	1.7%	-0.2%
03733	Los Angeles County (Central)--LA City (Central/Koreatown) PUMA	SCG 1	51,641	2.3%	2.2%	2.1%	2.0%	-0.3%
03738	Los Angeles County (Central)--El Monte & South El Monte Cities PUMA	SCG 1	35,270	1.5%	1.4%	1.3%	1.3%	-0.2%
03744	Los Angeles County (Central)--LA City (East Central/Central City & Boyle Heights) PUMA	SCG 1	65,418	2.9%	2.7%	2.6%	2.5%	-0.4%
03746	Los Angeles County--LA City (Central/Univ. of Southern California & Exposition Park) PUMA	SCG 1	36,301	2.5%	2.3%	2.3%	2.2%	-0.3%
03751	Los Angeles County (South Central)--LA City (South Central/Watts) PUMA	SCG 1	41,679	2.8%	2.6%	2.5%	2.4%	-0.3%

1 As shown in Table 4, a median-income household currently spends on average 0.90% on
2 gas costs after all other essential usage/service bills and housing costs are taken into account,
3 decreasing to 0.80% through the end of the anticipated cost recovery period for Angeles Link
4 Phase 2. As shown in Table 10, isolating the gas bill reduces the percentage of income on the gas
5 bill to 0.64% in current rates and decreasing to 0.57% through the end of the anticipated cost
6 recovery period for Angeles Link Phase 2.

7 As shown in Table 5, on average a low-income household that is not receiving CARE
8 program benefits currently spends 8.61% on gas costs after all other essential usage/service bills
9 and housing costs are removed, increasing to 9.42% through the end of the project. Table 11
10 shows that isolating the gas bill reduces the percentage of income on just the gas bill to 1.64% in
11 current, decreasing to 1.44% through 2028.

12 As shown in Table 8, on average a low-income household that is receiving CARE
13 program benefits currently spends 7.23% on gas costs after all other essential usage/service bills
14 and housing costs are removed, increasing to 7.96% through the end of cost recovery for Angeles
15 Link Phase 2. Table 12 shows that isolating the gas bill reduces the percentage of income on just
16 the gas bill to 1.20% in current rates, decreasing to 1.06% through 2028.

17 **VII. CONCLUSION**

18 This concludes my prepared direct testimony.

1 **VIII. WITNESS QUALIFICATION**

2 My name is Michael W. Foster. My business address is 555 West Fifth Street, Los
3 Angeles, California, 90013-1011. I am employed by SoCalGas as the Rate Design and Demand
4 Forecasting Manager within the CPUC/Federal Energy Regulatory Commission (FERC) Gas
5 Regulatory Affairs Department, which supports gas regulatory activities of both SoCalGas and
6 SDG&E. I have been employed with the Companies since December 2001. I have held my
7 current position managing the rates and demand forecasting groups since February 2023.
8 Previously, I held various positions of increasing responsibility, most recently as a Principal
9 Economic Advisor for the gas Rate Design function for both SoCalGas and SDG&E, from
10 December 2016 through February 2023. I received a Bachelor of Arts degree in Economics from
11 the University of California, Santa Barbara in 1995. I received a Master of Business
12 Administration degree from the Darden School of Business at the University of Virginia,
13 Charlottesville in 2000.

14 I have previously testified before the Commission.