

Company: Southern California Gas Company (U 904 G)
Proceeding: 2024 General Rate Case
Application: A.22-05-015
Exhibit: SCG-43-S

**SUPPLEMENTAL TESTIMONY OF
IFTEKHARUL (SHARIM) B CHAUDHURY
(AFFORDABILITY METRICS)**

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



November 2022

TABLE OF CONTENTS

I.	OVERVIEW	1
A.	Organization of Testimony	2
II.	ESSENTIAL AND AVERAGE BILLS	2
III.	AFFORDABILITY METRICS	4
A.	Hours at Minimum Wage.....	4
B.	Affordability Ratio.....	5
IV.	AREAS OF AFFORDABILITY CONCERN (AAC)	8
V.	SUPPLEMENTAL CARE ANALYSIS	10
VI.	SUPPLEMENTAL ENERGY BURDEN ANALYSIS	12
VII.	CONCLUSION.....	17
	Appendix A – Glossary of Terms.....	SBC-A-1

1 isolate the impact of the gas revenue requirements being requested. SoCalGas argued for the
2 inclusion of these metrics in the Affordability Order Instituting Rulemaking (OIR) (R.18-07-006)
3 and although the Commission declined to adopt them as official affordability metrics, SoCalGas
4 still believes these are important supplemental metrics that complement the affordability metrics
5 adopted in D.22-08-023 and provide a rounded view of potential impacts to its customers.

6 **A. Organization of Testimony**

7 My testimony is organized as follows:

- 8 • Section I – Overview
- 9 • Section II – Essential and Average Bills
- 10 • Section III – Affordability Metrics
- 11 • Section IV – Areas of Affordability Concern
- 12 • Section V – Supplemental CARE Analysis
- 13 • Section VI – Supplemental Energy Burden Analysis
- 14 • Section VII – Conclusion

15
16 **II. ESSENTIAL AND AVERAGE BILLS**

17 Essential usage bills represent the average monthly bill customers would pay for their
18 essential energy, water, or telecommunications usage. For gas, essential usage has been defined
19 as the baseline allocation of gas in a given climate zone.⁵ To calculate the essential usage bill,
20 SoCalGas multiplied (1) the baseline allowance for each climate zone for individually metered
21 gas residential customers by (2) the residential baseline rate.⁶ SoCalGas then weighted the
22 metrics by the number of households in each climate zone to derive a system average value.⁷
23 Essential usage bills are used as the numerator to calculate the Affordability Ratio (AR) and
24 Hours worked at Minimum Wage (HM) metrics.

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

⁶ SoCalGas Tariff Schedule GR, Residential Service.

⁷ The number of households by climate zone is based on 2021 recorded individually-metered residential customers.

As proposed, SoCalGas’s TY 2024 GRC Phase 1 would result in an increase to total Gas Bundled Revenues of \$1,112.5 million,⁸ or 19.2%, in 2024 compared to current⁹ and incremental post-test year increases of \$293.1 million (4.2%) in 2025, \$259.6 million (3.6%) in 2026 and \$377.0 million (5.1%) in 2027.

To understand the impact that SoCalGas’s GRC gas revenue requirement request has on the affordability metrics, SoCalGas has calculated the gas essential usage bills using (i) rates effective March 1, 2022,¹⁰ and (ii) rates based on the proposed gas revenue requirement for each of the years in the GRC cycle (2024-2027). The resulting gas essential usage bills are summarized in Table 1.¹¹

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

Climate Zone	Current 2022	2024			2025			2026			2027			Total Change Over Current	
	Bill (\$)	Bill (\$)	Δ (\$)	Δ (%)	Bill (\$)	Δ (\$)	Δ (%)	Bill (\$)	Δ (\$)	Δ (%)	Bill (\$)	Δ (\$)	Δ (%)	Δ (\$)	Δ (%)
Zone 1, Coastal/ Inland Area	\$40.23	\$47.87	\$7.64	19.0%	\$50.22	\$2.35	4.9%	\$52.30	\$2.08	4.1%	\$55.35	\$3.04	5.8%	\$15.12	37.6%
Zone 2, Desert	\$43.61	\$51.98	\$8.37	19.2%	\$54.56	\$2.58	5.0%	\$56.84	\$2.28	4.2%	\$60.18	\$3.34	5.9%	\$16.57	38.0%
Zone 3, Mountains	\$59.59	\$71.43	\$11.84	19.9%	\$75.07	\$3.64	5.1%	\$78.30	\$3.23	4.3%	\$83.02	\$4.72	6.0%	\$23.43	39.3%
Average	\$40.61	\$48.33	\$7.72	19.0%	\$50.71	\$2.38	4.9%	\$52.81	\$2.11	4.2%	\$55.89	\$3.08	5.8%	\$15.28	37.6%

The gas average use bills are summarized in Table 2.¹² While essential usage is based on the allotted baseline quantity, average usage is based on the average of the recent five calendar year’s recorded gas usage.

⁸ Amount includes franchise fees & uncollectibles (FF&U).

⁹ Revenue requirements effective January 1, 2022 per advice letter (AL) 5915.

¹⁰ Current rates effective January 1, 2022 per AL 5915.

¹¹ The calculation of the essential usage bills does not incorporate the annual gas residential California Climate Credits (CCC).

¹² The calculation of the average usage bills does not incorporate the annual gas residential CCC.

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

Climate Zone	Current 2022	2024			2025			2026			2027			Total Change Over Current	
	Bill (\$)	Bill (\$)	Δ (\$)	Δ (%)	Bill (\$)	Δ (\$)	Δ (%)	Bill (\$)	Δ (\$)	Δ (%)	Bill (\$)	Δ (\$)	Δ (%)	Δ (\$)	Δ (%)
Zone 1, Coastal/Inland Area	\$59.84	\$71.19	\$11.35	19.0%	\$74.70	\$3.51	4.9%	\$77.81	\$3.11	4.2%	\$82.35	\$4.54	5.8%	\$22.51	37.6%
Zone 2, Desert	\$60.53	\$72.10	\$11.58	19.1%	\$75.68	\$3.58	5.0%	\$78.85	\$3.17	4.2%	\$83.48	\$4.63	5.9%	\$22.96	37.9%
Zone 3, Mountains	\$76.04	\$90.93	\$14.89	19.6%	\$95.53	\$4.60	5.1%	\$99.60	\$4.07	4.3%	\$105.56	\$5.95	6.0%	\$29.52	38.8%
Average	\$59.97	\$71.36	\$11.39	19.0%	\$74.88	\$3.52	4.9%	\$78.00	\$3.12	4.2%	\$82.55	\$4.56	5.8%	\$22.58	37.7%

III. AFFORDABILITY METRICS

A. Hours at Minimum Wage

The Hours at Minimum Wage (HM) metric represents the number of hours a household that earns the minimum wage would need to work per month to pay their monthly essential usage bill.¹³ It is calculated by dividing the essential usage bill by the hourly minimum wage.¹⁴ The HM formula for gas utilities is shown below:

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

SoCalGas is presenting one set of HM metrics for its service territory. For 2022, the current minimum wage for all SoCalGas’s territory is \$15/hour, consistent with the California statewide minimum wage.¹⁵ Starting in 2023, minimum wages will diverge across cities/counties in SoCalGas’s service territory. For 2023, SoCalGas assumed that the average minimum wage in its service territory will increase by 3.5%, the same as the statewide minimum wage increase. The California statewide minimum wage increases annually by the lesser of 3.5 percent or the 12-month period from July to June percentage change in the Consumer Price Index for Urban

¹³ D.20-07-032 at 11.

¹⁴ D.20-07-032 at 47.

¹⁵ D.20-07-032 at 48, states that by 2023, the California statewide minimum wage standard for both employers with 25 employees or less and employers with 26 employees or more will be \$15 per hour.

Wager Earners and Clerical Workers (CPI-W).¹⁶ For purposes of forecasting HM minimum wage for 2024-2027, SoCalGas has used the five-year average increase in CPI-W, U.S. City average of 3.2%.

The resulting HM metrics for each climate zone are presented in Tables 3.

**TABLE 3
HM METRIC FOR GAS CUSTOMERS – SOCIALGAS TERRITORY (NON-CARE)**

Climate Zone	Current 2022	2024			2025			2026			2027			Total Change Over Current	
	Hours	Hours	Δ (hrs)	Δ (%)	Hours	Δ (hrs)	Δ (%)	Hours	Δ (hrs)	Δ (%)	Hours	Δ (hrs)	Δ (%)	Δ (hrs)	Δ (%)
Zone 1, Coastal/ Inland Area	2.68	2.99	0.31	11.6%	3.04	0.05	1.7%	3.07	0.03	0.9%	3.15	0.08	2.5%	0.47	17.4%
Zone 2, Desert	2.91	3.25	0.34	11.8%	3.31	0.06	1.7%	3.34	0.03	1.0%	3.42	0.09	2.6%	0.52	17.7%
Zone 3, Mountains	3.97	4.47	0.49	12.4%	4.55	0.08	1.8%	4.60	0.05	1.1%	4.72	0.13	2.7%	0.75	18.9%
Average	2.71	3.02	0.31	11.6%	3.07	0.05	1.7%	3.10	0.03	0.9%	3.18	0.08	2.5%	0.47	17.4%

B. Affordability Ratio

The Affordability Ratio (AR) seeks to quantify the percentage of a representative household’s income required to pay for an essential utility service after non-discretionary costs, such as housing and other essential utility services, are removed from the household income.¹⁷ It is calculated by dividing the essential usage bill by the discretionary income for a given geography.¹⁸ The Energy Division developed a tool (AR Calculator), and updates it annually, to calculate the AR that considers the essential usage bills for each service (electric, gas, water and telecommunications).¹⁹

SoCalGas utilized the AR Calculator by inputting the gas average monthly essential usage bills (shown in Table 1 above) and ran the macro to calculate and populate the results by year at the 50th and 20th percentiles of income distribution in SoCalGas’s territory. The AR

¹⁶ California Labor Code section 1182.12.

¹⁷ D.20-07-032 at 51.

¹⁸ D.20-07-032 at 51.

¹⁹ The current AR Calculator used for all calculations in this testimony is the 2020 Affordability Ratio Calculator released July 8, 2022, available at <https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/affordability>.

1 Calculator calculates individual AR values for each service, using the essential usage bill for the
2 given service in the numerator with the denominator equal to household income minus housing
3 costs and the remaining essential usage service bills in the denominator. The AR formula for gas
4 utilities is shown below:

$$\text{Individual Gas AR} = \frac{\text{Gas Essential Bill}}{(\text{Income} - \text{Housing} - \text{Other Essential Bills} \\ \text{[electric, water, telecomm.]})}$$

5
6
7
8
9 The individual AR values are calculated at the climate zone level as well as at a more
10 granular geographic level for each climate zone broken down into PUMA geographical areas as
11 designated by the United States Census Bureau.²⁰ In addition to the underlying assumptions
12 within the AR Calculator, the following assumptions and definitions apply:

- 13 1) Gas essential bills are based on the essential usage for non-CARE residential
14 customers by climate zone. Gas essential bills do not include the annual
15 California Climate Credit (CCC).
- 16 2) Other commodity bills (electric, telecommunications and water) pre-populated by
17 the AR Calculator.
- 18 3) Current metrics are based upon current gas rates effective January 1, 2022.
- 19 4) Proposed metrics are based on SoCalGas’s proposed TY 2024 GRC gas revenue
20 requirements for each year of the GRC cycle (2024-2027).
- 21 5) The Gas AR50 and AR20 metrics meant to represent the percentage of income
22 after housing and all other essential commodity (electric, water and
23 telecommunications) expenses that essential gas bills represent for households at
24 the 50th lowest and 20th income percentile, respectively.

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

²⁰ PUMAs are “non-overlapping, statistical geographic areas that partition each state or equivalent entity into geographic areas containing no fewer than 100,000 people each.” (August 22, 2022), available at <https://www.census.gov/programs-surveys/geography/guidance/geo-areas/pumas.html>.

1
2
3

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

Climate Zone	Current 2022	2024		2025		2026		2027		Total Change Over Current
	AR50	AR50	Δ (%)	AR50	Δ (%)	AR50	Δ (%)	AR50	Δ (%)	Δ (%)
Zone 1, Coastal/Inland Area	0.79%	0.90%	13.2%	0.92%	2.2%	0.93%	0.8%	0.95%	2.4%	19.5%
Zone 2, Desert	0.93%	1.07%	14.8%	1.10%	3.0%	1.12%	1.3%	1.15%	3.0%	23.3%
Zone 3, Mountains	1.40%	1.59%	13.5%	1.63%	2.1%	1.63%	0.4%	1.67%	2.0%	18.7%
Average	0.81%	0.92%	13.3%	0.94%	2.3%	0.95%	0.9%	0.97%	2.5%	19.8%

4
5
6
7
8

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

Climate Zone	Current 2022	2024		2025		2026		2027		Total Change Over Current
	AR20	AR20	Δ (%)	AR20	Δ (%)	AR20	Δ (%)	AR20	Δ (%)	Δ (%)
Zone 1, Coastal/Inland Area	5.03%	6.20%	23.3%	6.77%	9.2%	7.01%	3.5%	7.21%	2.9%	43.4%
Zone 2, Desert	3.10%	3.62%	16.6%	3.75%	3.7%	3.80%	1.4%	3.92%	3.0%	26.3%
Zone 3, Mountains	4.34%	4.94%	13.9%	5.06%	2.4%	5.08%	0.4%	5.19%	2.1%	19.6%
Average	4.86%	5.97%	22.9%	6.50%	8.9%	6.72%	3.4%	6.92%	2.9%	42.4%

9
10

1 **IV. AREAS OF AFFORDABILITY CONCERN (AAC)**

2 Areas of affordability concern (AAC) are pockets within the state where lower-income
3 Californians spend, on a percentage basis, much more of their available budget on essential
4 utility service, than the majority of Californians. Based on the most recent 2020 Annual
5 Affordability Report, for gas service an AAC is designated by areas where the AR20 is in excess
6 of 10%.²¹ Table 6 presents the PUMAs where the Gas AR20 is greater than 10% for either the
7 current year or any projected year in the 2024-2027 GRC cycle, making them areas of
8 affordability concern.

9 //

10 //

²¹ 2020 Annual Affordability Report at 19

1
2
3

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

PUMA #	County/City	Climate Zone	# of Housing Units	Current 2022	2024	2025	2026	2027	Total Impact (2027 – Current)
01904	Fresno County (Central)- Fresno City (Southwest) PUMA	SCG 2	14031	10.41%	12.54%	13.21%	13.45%	13.91%	3.51%
02904	Kern County (Central)- Bakersfield City (Southeast) PUMA	SCG 1	21744	7.87%	9.30%	9.70%	9.85%	10.16%	2.29%
03719	Los Angeles County (Central)-Glendale City PUMA	SCG 1	84063	7.56%	9.18%	9.74%	9.96%	10.36%	2.79%
03730	Los Angeles County (West Central)-LA City (Central/Hancock Park & Mid-Wilshire) PUMA	SCG 1	83305	34.22%	60.54%	87.27%	99.02%	99.42%	65.21%
03731	Los Angeles County (Central)-West Hollywood & Beverly Hills Cities PUMA	SCG 1	91199	13.50%	18.98%	22.29%	23.77%	25.88%	12.38%
03733	Los Angeles County (Central)-LA City (Central Koreatown) PUMA	SCG 1	50373	9.78%	11.95%	12.73%	13.03%	13.56%	3.78%
03734	Los Angeles County-- LA City (East Central Silver Lake, Echo Park & Westlake) PUMA	SCG 1	82687	13.78%	17.14%	18.45%	18.96%	19.81%	6.03%
03744	Los Angeles County (Central)-LA City (East Central Central City & Boyle Heights) PUMA	SCG 1	63498	40.89%	57.91%	66.99%	70.84%	76.30%	35.41%
03745	Los Angeles County (Central)-LA City (Southeast East Vernon) PUMA	SCG 1	30157	11.42%	14.01%	14.92%	15.27%	15.88%	4.46%
03746	Los Angeles County-- LA City (Central Univ. of Southern California & Exposition Park) PUMA	SCG 1	35407	100.00%	100.00%	100.00%	100.00%	100.00%	0.00%
03751	Los Angeles County (South Central)-LA City (South Central Watts) PUMA	SCG 1	40928	78.42%	99.97%	99.99%	99.99%	99.99%	21.57%
03766	Los Angeles County (South)-Long Beach City (Southwest & Port) PUMA	SCG 1	3663	8.27%	9.88%	10.39%	10.59%	10.97%	2.70%
03767	Los Angeles County (South)-LA City (South San Pedro) PUMA	SCG 1	68776	10.68%	12.91%	13.65%	13.94%	14.47%	3.78%
05904	Orange County (Central)- Irvine City (Central) PUMA	SCG 1	99787	8.04%	10.23%	11.18%	11.57%	12.17%	4.13%

4
5

V. SUPPLEMENTAL CARE ANALYSIS

The affordability metrics presented above utilize non-CARE rates to calculate the HM and AR metrics. However, the CARE program, which offers a 35% effective discount on electricity bills and 20% discount on gas bills, should be taken into consideration in determining a low-income customer’s cost of essential utility service.²² Excluding the CARE discount inflates the true cost of essential utility charges and provides an inaccurate representation of affordability. Additionally, the 2020 Annual Affordability Report acknowledges that, when low-income discounts are considered for purposes of assessing affordability, there is a “sizable improvement in utility affordability for customers who are enrolled in the programs in the most vulnerable areas.”²³

Accordingly, because CARE discounts are relevant to the issue of affordability, SoCalGas provides supplemental HM and AR20 metrics including the CARE discount in gas bills in Tables 7 and 8. In addition, SoCalGas provides the AAC PUMAs from Section IV with the CARE discount included in Table 9.

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

Climate Zone	Current 2022	2024			2025			2026			2027			Total Change Over Current	
	Hours	Hours	Δ (hrs)	Δ (%)	Hours	Δ (hrs)	Δ (%)	Hours	Δ (hrs)	Δ (%)	Hours	Δ (hrs)	Δ (%)	Δ (hrs)	Δ (%)
Zone 1, Coastal/Inland Area	2.08	2.33	0.25	12.1%	2.38	0.04	1.8%	2.40	0.02	1.0%	2.46	0.06	2.7%	0.38	18.4%
Zone 2, Desert	2.26	2.53	0.28	12.3%	2.58	0.05	1.8%	2.61	0.03	1.1%	2.68	0.07	2.7%	0.42	18.7%
Zone 3, Mountains	3.08	3.48	0.40	13.0%	3.55	0.07	2.0%	3.59	0.04	1.2%	3.69	0.10	2.9%	0.61	19.9%
Average	2.10	2.36	0.26	12.2%	2.40	0.04	1.8%	2.42	0.02	1.0%	2.49	0.06	2.7%	0.39	18.4%

²² See Public Utilities Codes §739.1; D.01-06-010, Ordering Paragraph 2. Further, as of September 2022, SoCalGas has achieved a 111% CARE penetration rate and thus it is reasonable to assume that most income-eligible customers are enrolled in the CARE program discount. See Monthly Report of SoCalGas on September 2022 Low Income Assistance Programs For September 2022 (October 21, 2022) at CARE Table; available at <https://liob.cpuc.ca.gov/monthly-annual-reports/>.

²³ 2020 Annual Affordability Report at 52.

1
2
3

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

Climate Zone	Current 2022	2024		2025		2026		2027		Total Change Over Current
	AR20	AR20	Δ (%)	AR20	Δ (%)	AR20	Δ (%)	AR20	Δ (%)	Δ (%)
Zone 1, Coastal/ Inland Area	4.01%	5.06%	26.2%	5.52%	9.0%	5.74%	4.1%	6.10%	6.3%	52.2%
Zone 2, Desert	2.41%	2.82%	17.2%	2.93%	3.8%	2.97%	1.4%	3.06%	3.1%	27.2%
Zone 3, Mountains	3.36%	3.85%	14.5%	3.95%	2.5%	3.97%	0.5%	4.05%	2.2%	20.5%
Average	3.87%	4.86%	25.7%	5.29%	8.8%	5.50%	3.9%	5.83%	6.1%	50.8%

4
5
6 //
7 //

1
2
3

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

PUMA #	County/City	Climate Zone	# of Housing Units	Current 2022	2024	2025	2026	2027	Total Impact (2027 – Current)
01904	Fresno County (Central)--Fresno City (Southwest) PUMA	SCG 2	14031	8.07%	9.78%	10.31%	10.51%	10.89%	2.81%
03730	Los Angeles County (West Central)--LA City (Central/Hancock Park & Mid-Wilshire) PUMA	SCG 1	83305	26.58%	47.30%	68.24%	80.61%	98.81%	72.23%
03731	Los Angeles County (Central)--West Hollywood & Beverly Hills Cities PUMA	SCG 1	91199	10.48%	14.81%	17.41%	18.58%	20.26%	9.78%
03733	Los Angeles County (Central)--LA City (Central/Koreatown) PUMA	SCG 1	50373	7.60%	9.32%	9.94%	10.19%	10.62%	3.02%
03734	Los Angeles County--LA City (East Central/Silver Lake, Echo Park & Westlake) PUMA	SCG 1	82687	10.70%	13.37%	14.41%	14.82%	15.51%	4.81%
03744	Los Angeles County (Central)--LA City (East Central/Central City & Boyle Heights) PUMA	SCG 1	63498	31.86%	46.16%	53.68%	56.74%	61.08%	29.21%
03745	Los Angeles County (Central)--LA City (Southeast/East Vernon) PUMA	SCG 1	30157	8.86%	11.06%	11.77%	12.06%	12.55%	3.69%
03746	Los Angeles County--LA City (Central/Univ. of Southern California & Exposition Park) PUMA	SCG 1	35407	100.00%	100.00%	100.00%	100.00%	100.00%	0.00%
03751	Los Angeles County (South Central)--LA City (South Central/Watts) PUMA	SCG 1	40928	61.04%	98.72%	99.97%	99.98%	99.99%	38.95%
03767	Los Angeles County (South)--LA City (South/San Pedro) PUMA	SCG 1	68776	8.29%	10.07%	10.67%	10.91%	11.33%	3.04%

4
5

VI. SUPPLEMENTAL ENERGY BURDEN ANALYSIS

The Energy Burden metric is the percentage of total income spent on an energy bill or bills. Although the Commission declined to adopt this metric in the Affordability OIR, the Commission specifically found that the Decision Implementing the Affordability Metrics (D.22-08-023) “does not preclude stakeholders from generating variations on or alternatives to the adopted metrics ... in Commission proceedings.”²⁴ The energy burden metric is an additional, complementary metric that should be considered in conjunction with the required affordability

12

²⁴ D.22-08-023, Findings of Fact 17 at 77.

1 metrics addressed above. The energy burden metric is a simple, easily understood calculation
2 that isolates the impact of SoCalGas’s GRC request and excludes the uncertainty posed by non-
3 discretionary expenses outside the Commission’s control (e.g., housing costs). In addition, it
4 allows for greater ease of comparison across utility services. The gas energy burden formula is
5 shown below:

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

6
7
8
9 The AR metrics discussed above remove housing and essential utility/service bills from
10 total income. The EB metric does not remove any bills or expenses from total income. By not
11 removing non-discretionary expenses from total income, the EB metric is able to better isolate
12 the impact of any utility bill—here the gas bill—and create a metric that is comparable across
13 utility services. The EB metric further eliminates the impact of housing costs, which can vary
14 across SoCalGas’s service territory and between income levels. While SoCalGas recognizes
15 that housing costs may be non-discretionary, neither SoCalGas nor the Commission influence or
16 determine housing affordability. Additionally, because the denominator for the AR metric
17 changes based on what utility service is being analyzed, the various AR metrics cannot be
18 compared or added together. For example, the Electric AR value cannot be added to the Gas AR
19 value for a total SoCalGas AR value. Because the denominator for the EB metric is total income
20 it is a more flexible metric that allows for comparison and combination across utility services.

21 Further, although the EB metric has been previously used in the Affordability OIR to
22 represent median-income households and average usage, SoCalGas uses the same income
23 assumptions and essential usage bills as the AR metric to make an apples-to-apples comparison
24 to the AR metric. Thus, for purposes of the gas EB metric, SoCalGas used the AR calculator and
25 cleared the electric, water, and telecommunication bill inputs as well as the housing and propane
26 cost embedded assumptions to calculate the gas EB for a median income household (EB50) and
27 a low-income household (EB20).

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

1
2
3

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

Climate Zone	Current 2022	2024		2025		2026		2027		Total Change Over Current
	EB50	EB50	Δ (%)	EB50	Δ (%)	EB50	Δ (%)	EB50	Δ (%)	Δ (%)
Zone 1, Coastal/ Inland Area	0.58%	0.65%	12.2%	0.66%	1.7%	0.66%	0.6%	0.68%	2.2%	17.4%
Zone 2, Desert	0.72%	0.82%	14.1%	0.84%	2.6%	0.85%	1.2%	0.88%	2.8%	21.7%
Zone 3, Mountains	1.06%	1.20%	13.1%	1.22%	1.8%	1.22%	0.4%	1.25%	2.0%	17.9%
Average	0.59%	0.66%	12.4%	0.68%	1.8%	0.68%	0.7%	0.70%	2.3%	17.8%

4
5
6
7
8

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

Climate Zone	Current 2022	2024		2025		2026		2027		Total Change Over Current
	EB20	EB20	Δ (%)	EB20	Δ (%)	EB20	Δ (%)	EB20	Δ (%)	Δ (%)
Zone 1, Coastal/ Inland Area	1.41%	1.58%	12.1%	1.61%	1.6%	1.61%	0.6%	1.65%	2.2%	17.2%
Zone 2, Desert	1.64%	1.87%	14.1%	1.92%	2.6%	1.94%	1.1%	1.99%	2.7%	21.5%
Zone 3, Mountains	2.32%	2.62%	13.0%	2.67%	1.7%	2.68%	0.4%	2.74%	2.1%	17.9%
Average	1.43%	1.61%	12.3%	1.64%	1.7%	1.65%	0.7%	1.69%	2.3%	17.6%

9
10

1
2
3

TABLE 12
EB20 METRIC FOR GAS CUSTOMERS (CARE)

Climate Zone	Current 2022	2024		2025		2026		2027		Total Change Over Current
	EB20	EB20	Δ (%)	EB20	Δ (%)	EB20	Δ (%)	EB20	Δ (%)	Δ (%)
Zone 1, Coastal/ Inland Area	1.09%	1.23%	12.7%	1.25%	1.7%	1.26%	0.7%	1.29%	2.4%	18.2%
Zone 2, Desert	1.27%	1.46%	14.7%	1.50%	2.7%	1.52%	1.2%	1.56%	2.8%	22.5%
Zone 3, Mountains	1.80%	2.04%	13.6%	2.08%	1.9%	2.09%	0.5%	2.14%	2.2%	19.0%
Average	1.11%	1.26%	12.9%	1.28%	1.8%	1.29%	0.8%	1.32%	2.4%	18.6%

4
5

6 //

7 //

1
2
3
4

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

PUMA #	County/City	Climate Zone	# of Housing Units	Current 2022	2024	2025	2026	2027	Total Impact (2027 – Current)
01904	Fresno County (Central)--Fresno City (Southwest) PUMA	SCG 2	14031	3.00%	3.43%	3.53%	3.56%	3.66%	0.66%
02904	Kern County (Central)--Bakersfield City (Southeast) PUMA	SCG 1	21744	2.96%	3.37%	3.46%	3.50%	3.59%	0.64%
03719	Los Angeles County (Central)--Glendale City PUMA	SCG 1	84063	1.81%	2.02%	2.05%	2.06%	2.11%	0.30%
03730	Los Angeles County (West Central)--LA City (Central/Hancock Park & Mid-Wilshire) PUMA	SCG 1	83305	2.04%	2.27%	2.31%	2.32%	2.38%	0.34%
03731	Los Angeles County (Central)--West Hollywood & Beverly Hills Cities PUMA	SCG 1	91199	1.49%	1.67%	1.69%	1.70%	1.74%	0.25%
03733	Los Angeles County (Central)--LA City (Central/Koreatown) PUMA	SCG 1	50373	2.04%	2.27%	2.31%	2.32%	2.38%	0.34%
03734	Los Angeles County--LA City (East Central/Silver Lake, Echo Park & Westlake) PUMA	SCG 1	82687	2.41%	2.69%	2.73%	2.75%	2.81%	0.40%
03744	Los Angeles County (Central)--LA City (East Central/Central City & Boyle Heights) PUMA	SCG 1	63498	3.37%	3.76%	3.82%	3.84%	3.93%	0.56%
03745	Los Angeles County (Central)--LA City (Southeast/East Vernon) PUMA	SCG 1	30157	2.20%	2.45%	2.49%	2.51%	2.56%	0.37%
03746	Los Angeles County--LA City (Central/Univ. of Southern California & Exposition Park) PUMA	SCG 1	35407	3.73%	4.17%	4.23%	4.26%	4.36%	0.62%
03751	Los Angeles County (South Central)--LA City (South Central/Watts) PUMA	SCG 1	40928	2.99%	3.34%	3.39%	3.41%	3.48%	0.50%
03766	Los Angeles County (South)--Long Beach City (Southwest & Port) PUMA	SCG 1	3663	2.20%	2.45%	2.49%	2.51%	2.56%	0.37%
03767	Los Angeles County (South)--LA City (South/San Pedro) PUMA	SCG 1	68776	2.36%	2.63%	2.67%	2.69%	2.75%	0.39%
05904	Orange County (Central)--Irvine City (Central) PUMA	SCG 1	99787	1.40%	1.56%	1.58%	1.59%	1.63%	0.23%

5

6
7

1
2
3

**TABLE 14
AAC PUMA's INCLUDING CARE DISCOUNTS, USING ENERGY BURDEN**

PUMA #	County/City	Climate Zone	# of Housing Units	Current 2022	2024	2025	2026	2027	Total Impact (2027 – Current)
01904	Fresno County (Central)--Fresno City (Southwest) PUMA	SCG 2	14031	2.33%	2.68%	2.75%	2.79%	2.87%	0.54%
03730	Los Angeles County (West Central)--LA City (Central-Hancock Park & Mid-Wilshire) PUMA	SCG 1	83305	1.58%	1.77%	1.80%	1.82%	1.86%	0.28%
03731	Los Angeles County (Central)--West Hollywood & Beverly Hills Cities PUMA	SCG 1	91199	1.16%	1.30%	1.32%	1.33%	1.36%	0.20%
03733	Los Angeles County (Central)--LA City (Central-Koreatown) PUMA	SCG 1	50373	1.58%	1.77%	1.80%	1.82%	1.86%	0.28%
03734	Los Angeles County--LA City (East Central-Silver Lake, Echo Park & Westlake) PUMA	SCG 1	82687	1.87%	2.10%	2.13%	2.15%	2.20%	0.33%
03744	Los Angeles County (Central)--LA City (East Central-Central City & Boyle Heights) PUMA	SCG 1	63498	2.61%	2.94%	2.98%	3.00%	3.08%	0.46%
03745	Los Angeles County (Central)--LA City (Southeast-East Vernon) PUMA	SCG 1	30157	1.70%	1.91%	1.94%	1.96%	2.01%	0.30%
03746	Los Angeles County--LA City (Central-Univ. of Southern California & Exposition Park) PUMA	SCG 1	35407	2.90%	3.25%	3.31%	3.33%	3.41%	0.51%
03751	Los Angeles County (South Central)--LA City (South Central-Watts) PUMA	SCG 1	40928	2.32%	2.60%	2.64%	2.66%	2.73%	0.41%
03767	Los Angeles County (South)--LA City (South-San Pedro) PUMA	SCG 1	68776	1.83%	2.05%	2.09%	2.10%	2.15%	0.32%

4
5

VII. CONCLUSION

This supplemental Affordability Metrics testimony provides the requisite information set forth in the Scoping Memo and D.22-08-023. SoCalGas also provides additional analysis to include CARE discounts for low-income households as well as to isolate the impact of the gas revenue requirements being requested in this proceeding.

This concludes my prepared supplemental direct testimony.

11

APPENDIX A
GLOSSARY OF TERMS

Acronyms	Definition
ACC	Areas of Affordability Concern
AR	Affordability Ratio
AR20	Affordability Ratio 20
AR50	Affordability Ratio 50
CARE	California Alternate Rates for Energy
CCC	California Climate Credit
CPI-W	Consumer Price Index for Urban Wage Earners and Clerical Workers
D.	Decision
EB	Energy Burden
EB20	Energy Burden 20
EB50	Energy Burden 50
FF&U	Franchise Fees & Uncollectibles
GRC	General Rate Case
HM	Hours at Minimum Wage
OIR	Order Instituting Remaking
PUMA	Public Use Microdata Area
SoCalGas	Southern California Gas Company