Company: San Diego Gas & Electric Company (U 902 M)
Proceeding: 2024 General Rate Case
Application: A.22-05-016
Exhibit: SDG&E-50-S

SUPPLEMENTAL TESTIMONY OF

RACHELLE R. BAEZ

(AFFORDABILITY METRICS)

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

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I. OVERVIEW

Pursuant to the Assigned Commissioner's Scoping Memo and Ruling (Scoping Memo), issued October 3, 2022, and consistent with the requirements of Decision (D.) 22-08-023, San Diego Gas & Electric Company (SDG&E) is submitting this supplemental Affordability Metrics testimony. Going forward and pursuant to D.22-08-023, SDG&E is required to submit Affordability Metrics in any initial filing in a proceeding with a revenue increase estimated to exceed one percent of currently authorized revenues systemwide for a single fuel.[1] However, this requirement was not applicable to SDG&E's Test Year (TY) 2024 General Rate Case (GRC) Application because D.22-08-023 was issued months after the May 16, 2022 initial filing of SDG&E's TY 2024 GRC. Nonetheless, SDG&E agreed to, and was subsequently ordered to, submit the Affordability Metrics pursuant to the requirements of D.22-08-023.[2] Accordingly, this testimony provides the Affordability Ratio 20 (AR20) by climate zone, Affordability Ratio 50 (AR50) by climate zone, and Hours-at-Minimum-Wage (HM) (collectively, the Affordability Metrics) associated with both current revenues in effect and the annual revenue requirement requested. It also provides:

a) Essential usage bills by climate zone associated with revenues in effect at the time of filing and with proposed revenues;

b) Average usage bills by climate zone associated with revenues in effect at the time of filing and with proposed revenues; and

c) For climate zones with Areas of Affordability Concern (AAC) as defined in the most recent annual 2020 Annual Affordability Report,[3] AR20 by climate zones subdivided by Public Use Microdata Area (PUMA).

This supplemental testimony will further present additional analyses of (1) the impact on affordability of including California Alternate Rates for Energy (CARE) discounts for low-

[1] D.22-08-023, Ordering Paragraphs 5 and 6 at 84-85.

[2] *See* Scoping Memo at 14-15.

[3] CPUC 2020 Annual Affordability Report (October 2022) (2020 Annual Affordability Report) at 12, available at https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/affordability-proceeding/2020/2020-annual-affordability-report.pdf.

income households; and (2) energy burden to isolate the impact of the electric revenue requirements being requested. SDG&E argued for the inclusion of these metrics in the Affordability Order Instituting Rulemaking (OIR), and although the Commission declined to adopt them as official affordability metrics, D.22-08-023 permits stakeholders to provide alternatives to the adopted metrics.[4] SDG&E still believes these are important supplemental metrics that complement the affordability metrics adopted in D.22-08-023 and provide a rounded view of potential impacts to its customers.

A. Organization of Testimony

My testimony is organized as follows:

- Section I – Overview
- Section II – Essential and Average Bills
- Section III – Affordability Metrics
- Section IV – Areas of Affordability Concern
- Section V – Supplemental CARE Analysis
- Section VI – Supplemental Energy Burden Analysis
- Section VII – Conclusion
- Section VIII – Witness Qualifications

II. ESSENTIAL AND AVERAGE BILLS

Essential usage bills represent the average monthly bill a customer would pay for their essential energy, water, or telecommunications usage. For electric, essential usage has been defined as the baseline allocation of electricity, which is generally 60% of the average household usage in a given climate zone.[5] To calculate the essential usage bills, SDG&E multiplied (1) the baseline allowance per climate zone for individually metered electric residential customers by (2) the Tier 1 electric residential Schedule DR rate, which is uniform by baseline territory.[6] This is the same agreed-upon methodology between SDG&E and Energy Division that is used in its quarterly Cost and Rate Tracking tool submissions as part of the Affordability OIR. By utilizing

[4] D.22-08-023, Findings of Fact (FOF) 17 at 77.

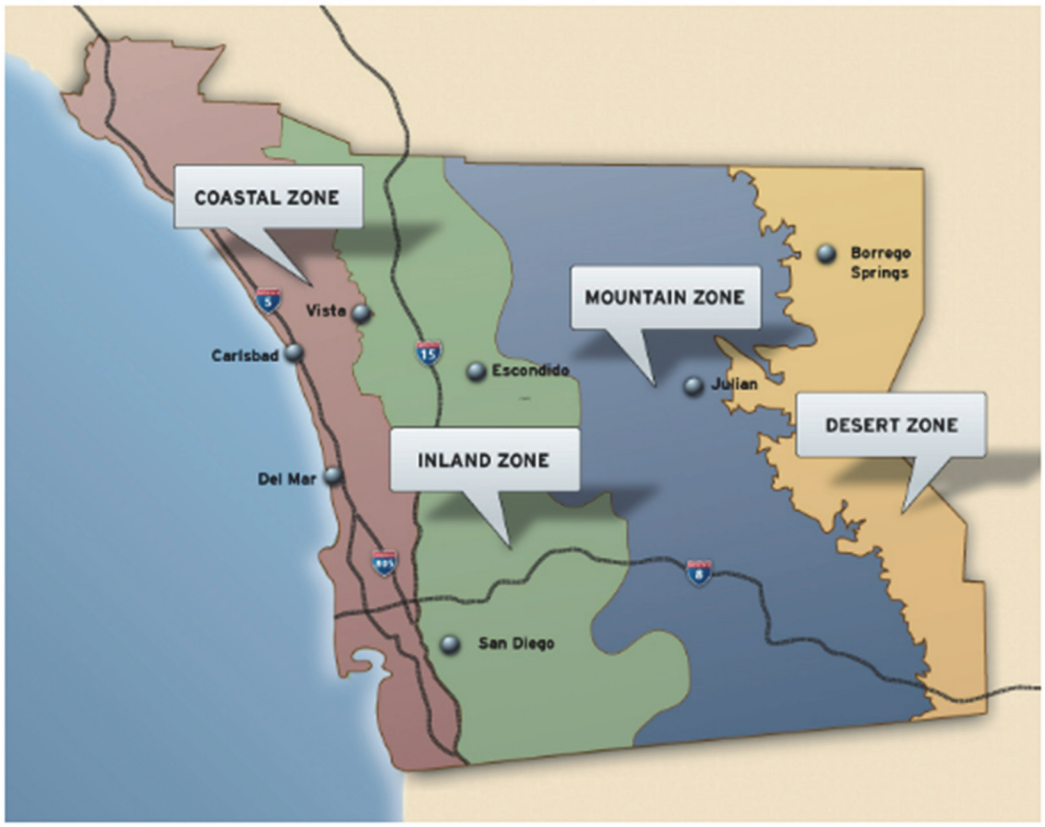
[5] *See* D.20-07-032 at 20-21. Daily baseline quantities vary based on climate zone, season (summer vs winter) and service type (all-electric vs basic).

[6] *See* D.20-07-032 at 20-21. Tier 1 rates are applicable to customers who use up to 130% of baseline allowance.

Schedule DR, which is a tiered, non-time-of-use (TOU) rate, there is no additional forecasting of usage patterns, which vary by customer. SDG&E then weighted the metrics by the number of households in each baseline territory to produce a system average.[7] Essential usage bills are used as the numerator to calculate the Affordability Ratio (AR) and HM metrics.

Figure 1 presents a map of baseline territories in SDG&E's service area, which represent different climate zones.

FIGURE 1
SDG&E BASELINE TERRITORY MAP



As proposed, SDG&E's TY2024 GRC Phase 1 would result in an increase to total electric revenue requirements of $461 million,[8] or 11.2%, in 2024 compared to current[9] and

[7] The number of households by climate zone were used from the AR calculator, published by Energy Division on July 8, 2022.

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

[9] Revenue requirements effective June 1, 2022 per advice letter (AL) 4004-E.

incremental post-test year increases of $255 million (5.6%) in 2025, $213 million (4.4%) in 2026 and $217 million (4.3%) in 2027.[10]

To understand the impact that SDG&E's GRC revenue requirement request has on the affordability metrics, SDG&E calculated the electric essential usage bills (1) based on rates effective June 1, 2022,[11] and (2) based on the proposed revenue requirement for each of the years in the GRC cycle (2024-2027).[12] The resulting electric essential usage bills are summarized in Tables 1 and 2 for non-CARE basic and non-CARE all-electric customers, respectively.[13]

TABLE 1
MONTHLY ELECTRIC ESSENTIAL USAGE BILLS (BASIC SERVICE, NON-CARE)

	Current[14]	2024			2025		
Climate Zone	**Bill ($)**	**Bill ($)**	**Change ($)**	**%**	**Bill ($)**	**Change ($)**	**%**
Coastal	$107.83	$118.59	$10.77	10.0%	$124.40	$5.81	4.9%
Desert	$153.56	$168.89	$15.33	10.0%	$177.17	$8.27	4.9%
Inland	$117.49	$129.22	$11.73	10.0%	$135.55	$6.33	4.9%
Mountain	$156.02	$171.60	$15.58	10.0%	$180.01	$8.41	4.9%
Average	$112.72	$123.97	$11.26	10.0%	$130.05	$6.07	4.9%

[10] These amounts are updated to include the revisions to Exh. SDG&E-13, served along with SDG&E's Motion for Leave to Submit Supplemental Testimony, which was filed on October 28, 2022.

[11] Current rates effective June 1, 2022 per AL 4004-E.

[12] For simplifying purposes, all months were assumed to be 30-day months to get the monthly baseline allocation.

[13] The calculation of the essential usage bills does not incorporate the biannual electric residential California Climate Credits (CCC).

[14] Based on current rates effective June 1, 2022 per AL 4004-E.

	2026			2027			Total Change Over Current	
Climate Zone	**Bill ($)**	**Change ($)**	**%**	**Bill ($)**	**Change ($)**	**%**	**Change ($)**	**%**
Coastal	$129.28	$4.87	3.9%	$134.23	$4.95	3.8%	$26.40	24.5%
Desert	$184.10	$6.94	3.9%	$191.16	$7.05	3.8%	$37.60	24.5%
Inland	$140.86	$5.31	3.9%	$146.25	$5.40	3.8%	$28.77	24.5%
Mountain	$187.06	$7.05	3.9%	$194.23	$7.17	3.8%	$38.20	24.5%
Average	$135.14	$5.09	3.9%	$140.32	$5.18	3.8%	$27.60	24.5%

TABLE 2
MONTHLY ELECTRIC ESSENTIAL USAGE BILLS
(ALL-ELECTRIC SERVICE, NON-CARE)

	Current	2024			2025		
Climate Zone	**Bill ($)**	**Bill ($)**	**Change ($)**	**%**	**Bill ($)**	**Change ($)**	**%**
Coastal	$90.45	$99.48	$9.03	10.0%	$104.35	$4.87	4.9%
Desert	$201.59	$221.72	$20.13	10.0%	$232.59	$10.86	4.9%
Inland	$126.98	$139.66	$12.68	10.0%	$146.50	$6.84	4.9%
Mountain	$227.61	$250.34	$22.73	10.0%	$262.61	$12.26	4.9%
Average	$108.28	$119.09	$10.81	10.0%	$124.92	$5.83	4.9%

	2026			2027			Total Change Over Current	
Climate Zone	**Bill ($)**	**Change ($)**	**%**	**Bill ($)**	**Change ($)**	**%**	**Change ($)**	**%**
Coastal	$108.44	$4.09	3.9%	$112.59	$4.15	3.8%	$22.15	24.5%
Desert	$241.69	$9.11	3.9%	$250.95	$9.26	3.8%	$49.36	24.5%
Inland	$152.24	$5.74	3.9%	$158.07	$5.83	3.8%	$31.09	24.5%
Mountain	$272.89	$10.28	3.9%	$283.34	$10.45	3.8%	$55.73	24.5%
Average	$129.82	$4.89	3.9%	$134.79	$4.97	3.8%	$26.51	24.5%

The electric average usage bills are summarized in Tables 3 and 4 for non-CARE, basic and non-CARE, all-electric customers, respectively.[15] While essential usage is based on the allotted baseline quantity for each climate zone, average usage is based on the 2021 calendar year's recorded average usage for each climate zone.

TABLE 3
MONTHLY ELECTRIC AVERAGE USAGE BILLS (BASIC SERVICE, NON-CARE)

	Current	2024			2025		
Climate Zone	**Bill ($)**	**Bill ($)**	**Change ($)**	**%**	**Bill ($)**	**Change ($)**	**%**
Coastal	$147.74	$162.49	$14.75	10.0%	$170.45	$7.96	4.9%
Desert	$163.77	$180.13	$16.35	10.0%	$188.95	$8.83	4.9%
Inland	$149.29	$164.20	$14.91	10.0%	$172.24	$8.04	4.9%
Mountain	$187.37	$206.08	$18.71	10.0%	$216.17	$10.10	4.9%
Average	$148.94	$163.81	$14.87	10.0%	$171.84	$8.03	4.9%

[15] The calculation of the average usage bills does not incorporate the biannual electric residential CCC.

	2026			2027			Total Change Over Current	
Climate Zone	**Bill ($)**	**Change ($)**	**%**	**Bill ($)**	**Change ($)**	**%**	**Change ($)**	**%**
Coastal	$177.13	$6.67	3.9%	$183.91	$6.79	3.8%	$36.17	24.5%
Desert	$196.35	$7.40	3.9%	$203.87	$7.52	3.8%	$40.10	24.5%
Inland	$178.98	$6.74	3.9%	$185.84	$6.86	3.8%	$36.55	24.5%
Mountain	$224.64	$8.46	3.9%	$233.24	$8.61	3.8%	$45.88	24.5%
Average	$178.57	$6.73	3.9%	$185.41	$6.84	3.8%	$36.47	24.5%

TABLE 4
MONTHLY ELECTRIC AVERAGE USAGE BILLS (ALL-ELECTRIC SERVICE, NON-CARE)

	Current	2024			2025		
Climate Zone	**Bill ($)**	**Bill ($)**	**Change ($)**	**%**	**Bill ($)**	**Change ($)**	**%**
Coastal	$128.01	$140.80	$12.78	10.0%	$147.69	$6.90	4.9%
Desert	$168.21	$185.00	$16.80	10.0%	$194.07	$9.06	4.9%
Inland	$160.46	$176.49	$16.02	10.0%	$185.14	$8.65	4.9%
Mountain	$223.78	$246.13	$22.35	10.0%	$258.19	$12.06	4.9%
Average	$143.42	$157.75	$14.32	10.0%	$165.48	$7.73	4.9%

	2026			2027			Total Change Over Current	
Climate Zone	**Bill ($)**	**Change ($)**	**%**	**Bill ($)**	**Change ($)**	**%**	**Change ($)**	**%**
Coastal	$153.48	$5.78	3.9%	$159.36	$5.88	3.8%	$31.35	24.5%
Desert	$201.66	$7.60	3.9%	$209.39	$7.73	3.8%	$41.18	24.5%
Inland	$192.38	$7.25	3.9%	$199.76	$7.37	3.8%	$39.29	24.5%
Mountain	$268.30	$10.11	3.9%	$278.57	$10.28	3.8%	$54.79	24.5%
Average	$171.95	$6.48	3.9%	$178.54	$6.59	3.8%	$35.12	24.5%

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.[16] It is calculated by dividing the essential usage bill by the hourly minimum wage.[17] The HM formula is shown below:

HM = essential electric usage bill / hourly minimum wage

SDG&E is presenting two sets of HM metrics—City of San Diego and Non-City of San Diego. These two sets of HM metrics are necessary because the minimum wage for the City of San Diego and Non-City of San Diego will diverge in 2023. For 2022, the current minimum wage for all SDG&E's territory (City of San Diego and Non-City of San Diego) is $15/hour, consistent with the California statewide minimum wage.[18] Going forward from 2022, the minimum wage for the City of San Diego, which makes up approximately 40% of SDG&E's

[16] D.20-07-032 at 11.

[17] D.20-07-032 at 47.

[18] 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.

households, will increase annually based on the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W), U.S. city average,[19] which was recently announced to increase to $16.30 for 2023. Alternatively, Non-City of San Diego customers follow the California statewide minimum wage, which increases annually by the lesser of 3.5 percent or the 12-month period from July to June percentage change in the CPI-W.[20] Beginning January 1, 2023, the California statewide minimum wage will increase to $15.50 per hour for all employers. For purposes of forecasting HM minimum wage for 2024-2027, SDG&E uses the five-year average increase in CPI-W.

The resulting HM metric for each climate zone is presented in Tables 5 and 6.[21]

TABLE 5
HM METRIC FOR ELECTRIC CUSTOMERS - CITY OF SAN DIEGO (NON-CARE)

	Current	2024			2025		
Climate Zone	**Hours**	**Hours**	**Change (hrs)**	**Change (%)**	**Hours**	**Change (hrs)**	**Change (%)**
Coastal	6.9	6.8	-0.2	-2.7%	6.8	0.1	0.8%
Desert	12.0	11.6	-0.3	-2.7%	11.7	0.1	0.8%
Inland	8.0	7.8	-0.2	-2.7%	7.8	0.1	0.8%
Mountain	12.3	11.9	-0.3	-2.7%	12.0	0.1	0.8%
Average	7.5	7.3	-0.2	-2.7%	7.3	0.1	0.8%

[19] San Diego Municipal Code (SDMC) Chapter 3, Article 9, Division 1, Section 39.0107.

[20] California Labor Code section 1182.12

[21] The essential usage used in the HM metric is the weighted average of basic vs all-electric bills using the "Percentage of Customers on All-Electric Rate" field from the AR Calculator to align with the affordability ratio calculations.

	2026			2027			Total Change Over Current	
Climate Zone	**Hours**	**Change (hrs)**	**%**	**Hours**	**Change (hrs)**	**%**	**Change (hrs)**	**%**
Coastal	6.8	0.0	-0.1%	6.8	0.0	-0.2%	-0.2	-2.3%
Desert	11.7	0.0	-0.1%	11.7	0.0	-0.2%	-0.3	-2.3%
Inland	7.8	0.0	-0.1%	7.8	0.0	-0.2%	-0.2	-2.3%
Mountain	12.0	0.0	-0.1%	12.0	0.0	-0.2%	-0.3	-2.3%
Average	7.3	0.0	-0.1%	7.3	0.0	-0.2%	-0.2	-2.3%

TABLE 6
HM METRIC FOR ELECTRIC CUSTOMERS - NON-CITY OF SAN DIEGO (NON-CARE)

	Current	2024			2025		
Climate Zone	**Hours**	**Hours**	**Change (hrs)**	**Change (%)**	**Hours**	**Change (hrs)**	**Change (%)**
Coastal	6.9	7.2	0.2	3.1%	7.3	0.1	1.6%
Desert	12.0	12.3	0.4	3.1%	12.5	0.2	1.6%
Inland	8.0	8.2	0.2	3.1%	8.4	0.1	1.6%
Mountain	12.3	12.7	0.4	3.1%	12.9	0.2	1.6%
Average	7.5	7.7	0.2	3.1%	7.8	0.1	1.6%

	2026			2027			Total Change Over Current	
Climate Zone	**Hours**	**Change (hrs)**	**%**	**Hours**	**Change (hrs)**	**%**	**Change (hrs)**	**%**
Coastal	7.3	0.0	0.6%	7.4	0.0	0.6%	0.4	6.0%
Desert	12.6	0.1	0.6%	12.7	0.1	0.6%	0.7	6.0%
Inland	8.4	0.1	0.6%	8.5	0.0	0.6%	0.5	6.0%
Mountain	12.9	0.1	0.6%	13.0	0.1	0.6%	0.7	6.0%
Average	7.9	0.1	0.6%	7.9	0.0	0.6%	0.4	6.0%

B. Affordability Ratio

The Affordability Ratio (AR) seeks to quantify the percentage of a representative household's income that is 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.[22] It is calculated by dividing the essential usage bill by the discretionary income for a given geography.[23] The Energy Division (ED) created a tool (AR Calculator) to calculate the AR that considers the essential usage bills for each commodity (electric, gas, water and telecommunications) and the tool is updated annually.[24]

SDG&E utilized the AR Calculator by entering the electric average monthly essential usage bills by climate zone (shown in Tables 1 and 2) and the gas average monthly essential usage bills (shown in the supplemental testimony of Sharim Chaudhury, Exhibit SDG&E-51-S), and ran the macro to calculate and populate the results by year at the 20th and 50th percentiles of income distribution in SDG&E's territory. The AR Calculator calculates individual AR values for each commodity using the essential usage bill for the given commodity in the numerator with

[22] D.20-07-032 at 51.

[23] D.20-07-032 at 51.

[24] 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.

the denominator equal to household income minus housing costs and the remaining essential usage commodity bills. The AR formula for electric is shown below:

Individual Electric AR = Electric Essential Bill / (Income - Housing - Other Essential Bills [gas, water, telecomm.])

The individual AR values are calculated at the climate zone level as well as at a more detailed geographic level for each climate zone broken down into PUMA geographical areas as designated by the United States Census Bureau.[25] In addition to the underlying assumptions within the AR Calculator, the following assumptions and definitions apply:

1) Electric essential bills are based on the essential usage for non-CARE residential customers on Schedule DR by climate zone. Electric essential bills do not include the biannual California Climate Credit (CCC).
2) Gas essential bills are based on the essential usage using the non-CARE residential gas rate, Schedule GR. Gas essential bills do not include the annual CCC.
3) Other commodity bills (telecommunications and water) are pre-populated by the AR Calculator.
4) Current metrics are based on current electric rates effective June 1, 2022, per AL 4004-E and current gas rates effective November 1, 2022, per AL 3127-G.
5) Proposed metrics are based on SDG&E's proposed TY 2024 GRC Phase 1 electric and gas revenue requirement for each year of the GRC cycle (2024-2027).
6) The Electric AR20 and AR50 metrics are meant to represent the percentage of income after housing and all other essential commodity (gas, water and telecommunications) expenses that essential electric bills require for households at the 20th income percentile and 50th income percentile, respectively.

The resulting individual electric AR20 and AR50 metrics for each climate zone are presented in Tables 7 and 8, respectively.

[25] 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

TABLE 7
AR20 METRIC FOR ELECTRIC CUSTOMERS (NON-CARE)

	Current	2024		2025	
Climate Zone	**AR20**	**AR20**	**Incremental Change in AR20**	**AR20**	**Incremental Change in AR20**
Coastal	6.4%	7.0%	0.6	7.3%	0.3
Desert	7.4%	7.9%	0.5	8.1%	0.2
Inland	9.5%	10.6%	1.1	11.2%	0.5
Mountain	9.0%	9.7%	0.7	10.0%	0.3
Average	7.8%	8.6%	0.8	9.0%	0.4

	2026		2027		
Climate Zone	**AR20**	**Incremental Change in AR20**	**AR20**	**Incremental Change in AR20**	**Total Change in AR20**
Coastal	7.4%	0.1	7.5%	0.1	1.0
Desert	8.2%	0.1	8.2%	0.1	0.9
Inland	11.4%	0.2	11.6%	0.2	2.0
Mountain	10.2%	0.1	10.3%	0.1	1.3
Average	9.2%	0.2	9.3%	0.1	1.5

TABLE 8
AR50 METRIC FOR ELECTRIC CUSTOMERS (NON-CARE)

	Current	2024		2025	
Climate Zone	**AR50**	**AR50**	**Incremental Change in AR50**	**AR50**	**Incremental Change in AR50**
Coastal	1.8%	1.9%	0.1	1.9%	0.0
Desert	3.0%	3.1%	0.2	3.2%	0.1
Inland	2.0%	2.1%	0.1	2.1%	0.1
Mountain	3.0%	3.1%	0.2	3.2%	0.1
Average	1.9%	2.0%	0.1	2.0%	0.1

	2026		2027		
Climate Zone	**AR50**	**Incremental Change in AR50**	**AR50**	**Incremental Change in AR50**	**Total Change in AR50**
Coastal	1.9%	0.0	2.0%	0.0	0.2
Desert	3.2%	0.0	3.2%	0.0	0.3
Inland	2.2%	0.0	2.2%	0.0	0.2
Mountain	3.2%	0.0	3.3%	0.0	0.3
Average	2.1%	0.0	2.1%	0.0	0.2

IV. AREAS OF AFFORDABILITY CONCERN (AAC)

Areas of affordability concern (AAC) are pockets of the state where lower-income Californians spend more of their available budget on essential utility service than the majority of Californians. Based on the most recent annual 2020 Annual Affordability Report, for electric

service, an AAC is designated by areas where the AR20 is in excess of 15%.[26] Table 9 presents the PUMAs where the Electric AR20 is greater than 15% for either the current year or any projected year in the 2024-2027 GRC cycle, making them areas of affordability concern.

TABLE 9
AAC – PUMAs WITH ELECTRIC AR20 >15% (NON-CARE)

PUMA #	County/City	Climate Zone	# of Housing Units	Current	2024	2025
02500	Imperial County--El Centro City PUMA	SDG&E DESERT	2	15.4%	16.6%	17.1%
07306	San Diego County (Northwest)--Escondido City (East) PUMA	SDG&E INLAND	44,980	20.5%	23.8%	25.5%
07306	San Diego County (Northwest)--Escondido City (East) PUMA	SDG&E MOUNTAIN	477	26.9%	30.7%	32.7%
07313	San Diego County (Central)--El Cajon & Santee Cities PUMA	SDG&E INLAND	70,527	20.9%	24.1%	25.7%
07321	San Diego County (Southwest)--Chula Vista (West) & National City Cities PUMA	SDG&E INLAND	5,458	13.4%	14.9%	15.5%

[26] 2020 Annual Affordability Report at 19.

PUMA #	County/City	Climate Zone	# of Housing Units	2026	2027	Total Impact (2027 – Current)
02500	Imperial County--El Centro City PUMA	SDG&E DESERT	2	17.4%	17.5%	2.2
07306	San Diego County (Northwest)--Escondido City (East) PUMA	SDG&E INLAND	44,980	26.2%	26.9%	6.4
07306	San Diego County (Northwest)--Escondido City (East) PUMA	SDG&E MOUNTAIN	477	33.5%	34.3%	7.4
07313	San Diego County (Central)--El Cajon & Santee Cities PUMA	SDG&E INLAND	70,527	26.4%	27.0%	6.1
07321	San Diego County (Southwest)--Chula Vista (West) & National City Cities PUMA	SDG&E INLAND	5,458	15.8%	16.1%	2.6

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 to low-income customers, should be taken into consideration as an additional metric in determining a low-income customer's cost of essential utility service.[27] For customers that participate in the CARE program, 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."[28]

[27] *See* Public Utilities Codes §739.1; D.01-06-010, OP 2. Further, as of September 2022, SDG&E has achieved a 122% CARE penetration rate and thus it is reasonable to assume that most SDG&E low-income customers in the 20% income percentile are enrolled in the CARE program discount. *See* Monthly Report of SDG&E on Low Income Assistance Programs For September 2022 (October 21, 2022) at CARE Table 2; available at https://liob.cpuc.ca.gov/wp-content/uploads/sites/14/2022/11/SDGE-SEPTEMBER2022-Low-Income-Monthly-Report.pdf?emrc=17bab7.

[28] 2020 Annual Affordability Report at 52.

Accordingly, because CARE discounts are relevant to the issue of affordability, SDG&E provides supplemental HM and AR20 metrics including the CARE discount in both gas and electric bills in the calculation of essential usage bills. See Tables 10, 11 and 12. In addition, SDG&E provides the AAC PUMAs from Section IV with the CARE discount included in Table 13.

TABLE 10
HM METRIC FOR ELECTRIC CUSTOMERS – CITY OF SAN DIEGO (CARE)

	Current	2024			2025		
Climate Zone	**Hours**	**Hours**	**Change (hrs)**	**Change (%)**	**Hours**	**Change (hrs)**	**Change (%)**
Coastal	4.5	4.4	-0.1	-2.7%	4.4	0.0	0.8%
Desert	7.8	7.6	-0.2	-2.7%	7.6	0.1	0.8%
Inland	5.2	5.0	-0.1	-2.7%	5.1	0.0	0.8%
Mountain	8.0	7.8	-0.2	-2.7%	7.8	0.1	0.8%
Average	4.9	4.7	-0.1	-2.7%	4.8	0.0	0.8%

	2026			2027			Total Change Over Current	
Climate Zone	**Hours**	**Change (hrs)**	**%**	**Hours**	**Change (hrs)**	**%**	**Change (hrs)**	**%**
Coastal	4.4	0.0	-0.1%	4.4	0.0	-0.2%	-0.1	-2.3%
Desert	7.6	0.0	-0.1%	7.6	0.0	-0.2%	-0.2	-2.3%
Inland	5.1	0.0	-0.1%	5.1	0.0	-0.2%	-0.1	-2.3%
Mountain	7.8	0.0	-0.1%	7.8	0.0	-0.2%	-0.2	-2.3%
Average	4.8	0.0	-0.1%	4.7	0.0	-0.2%	-0.1	-2.3%

TABLE 11
HM METRIC FOR ELECTRIC CUSTOMERS – NON-CITY OF SAN DIEGO (CARE)

	Current	2024			2025		
Climate Zone	**Hours**	**Hours**	**Change (hrs)**	**Change (%)**	**Hours**	**Change (hrs)**	**Change (%)**
Coastal	4.5	4.7	0.1	3.1%	4.7	0.1	1.6%
Desert	7.8	8.0	0.2	3.1%	8.1	0.1	1.6%
Inland	5.2	5.3	0.2	3.1%	5.4	0.1	1.6%
Mountain	8.0	8.2	0.2	3.1%	8.4	0.1	1.6%
Average	4.9	5.0	0.1	3.1%	5.1	0.1	1.6%

	2026			2027			Total Change Over Current	
Climate Zone	**Hours**	**Change (hrs)**	**%**	**Hours**	**Change (hrs)**	**%**	**Change (hrs)**	**%**
Coastal	4.8	0.0	0.6%	4.8	0.0	0.6%	0.3	6.0%
Desert	8.2	0.1	0.6%	8.2	0.0	0.6%	0.5	6.0%
Inland	5.5	0.0	0.6%	5.5	0.0	0.6%	0.3	6.0%
Mountain	8.4	0.1	0.6%	8.5	0.0	0.6%	0.5	6.0%
Average	5.1	0.0	0.6%	5.2	0.0	0.6%	0.3	6.0%

TABLE 12
AR20 METRIC FOR ELECTRIC CUSTOMERS (CARE)

	Current	2024		2025	
Climate Zone	**AR20**	**AR20**	**Incremental Change in AR20**	**AR20**	**Incremental Change in AR20**
Coastal	4.1%	4.5%	0.4	4.7%	0.2
Desert	4.8%	5.1%	0.3	5.2%	0.1
Inland	6.1%	6.8%	0.7	7.2%	0.3
Mountain	5.8%	6.3%	0.4	6.5%	0.2
Average	5.0%	5.5%	0.5	5.8%	0.2

	2026		2027		
Climate Zone	**AR20**	**Incremental Change in AR20**	**AR20**	**Incremental Change in AR20**	**Total Change in AR20**
Coastal	4.8%	0.1	4.8%	0.1	0.7
Desert	5.3%	0.1	5.3%	0.0	0.6
Inland	7.3%	0.1	7.4%	0.1	1.3
Mountain	6.6%	0.1	6.6%	0.1	0.8
Average	5.9%	0.1	6.0%	0.1	0.9

TABLE 13
AAC PUMA's INCLUDING CARE DISCOUNTS

PUMA #	County/City	Climate Zone	# of Housing Units	Current	2024	2025
07306	San Diego County (Northwest)--Escondido City (East) PUMA	SDG&E INLAND	44,980	13.1%	15.2%	16.2%
07306	San Diego County (Northwest)--Escondido City (East) PUMA	SDG&E MOUNTAIN	477	17.3%	19.6%	20.9%
07313	San Diego County (Central)--El Cajon & Santee Cities PUMA	SDG&E INLAND	70,527	13.4%	15.4%	16.4%

PUMA #	County/City	Climate Zone	# of Housing Units	2026	2027	Total Impact (2027 – Current)
07306	San Diego County (Northwest)--Escondido City (East) PUMA	SDG&E INLAND	44,980	16.7%	17.1%	3.9
07306	San Diego County (Northwest)--Escondido City (East) PUMA	SDG&E MOUNTAIN	477	21.4%	21.9%	4.6
07313	San Diego County (Central)--El Cajon & Santee Cities PUMA	SDG&E INLAND	70,527	16.8%	17.2%	3.8

VI. SUPPLEMENTAL ENERGY BURDEN (EB) 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."[29] The energy burden metric is an additional, complementary metric that should be considered in conjunction with the required affordability metrics addressed above. The energy burden metric is a simple, easily understood calculation that isolates the impact of SDG&E's GRC request and excludes the uncertainty posed by non-discretionary expenses outside the Commission's control (e.g., housing costs). In addition, it

[29] D.22-08-023, FOF 17 at 77.

allows for greater ease of comparison across utility services. The electric energy burden formula is shown below:

Electric EB = Electric Essential Bill / Income

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

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

The resulting electric EB50 and EB20 (both Non-CARE and CARE) metrics for each climate zone are presented in Tables 14, 15 and 16, respectively. In addition, the areas of affordability concern from Tables 9 and 13 are reproduced below in Tables 17 and 18 using energy burden.

TABLE 14
EB50 METRIC FOR ELECTRIC CUSTOMERS (NON-CARE)

	Current	2024		2025	
Climate Zone	**EB50**	**EB50**	**Incremental Change in EB50**	**EB50**	**Incremental Change in EB50**
Coastal	1.3%	1.3%	0.1	1.4%	0.0
Desert	2.4%	2.5%	0.1	2.5%	0.0
Inland	1.5%	1.5%	0.1	1.6%	0.0
Mountain	2.3%	2.4%	0.1	2.5%	0.0
Average	1.4%	1.4%	0.1	1.5%	0.0

	2026		2027		
Climate Zone	**EB50**	**Incremental Change in EB50**	**EB50**	**Incremental Change in EB50**	**Total Change in EB50**
Coastal	1.4%	0.0	1.4%	0.0	0.1
Desert	2.5%	0.0	2.5%	0.0	0.2
Inland	1.6%	0.0	1.6%	0.0	0.1
Mountain	2.5%	0.0	2.5%	0.0	0.2
Average	1.5%	0.0	1.5%	0.0	0.1

TABLE 15
EB20 METRIC FOR ELECTRIC CUSTOMERS (NON-CARE)

	Current	2024		2025	
Climate Zone	**EB20**	**EB20**	**Incremental Change in EB20**	**EB20**	**Incremental Change in EB20**
Coastal	2.9%	3.1%	0.1	3.1%	0.1
Desert	4.9%	5.2%	0.2	5.3%	0.1
Inland	3.7%	3.9%	0.2	4.0%	0.1
Mountain	5.2%	5.5%	0.2	5.6%	0.1
Average	3.3%	3.5%	0.2	3.5%	0.1

	2026		2027		
Climate Zone	**EB20**	**Incremental Change in EB20**	**EB20**	**Incremental Change in EB20**	**Total Change in EB20**
Coastal	3.1%	0.0	3.2%	0.0	0.2
Desert	5.3%	0.0	5.3%	0.0	0.4
Inland	4.0%	0.0	4.0%	0.0	0.3
Mountain	5.6%	0.0	5.6%	0.0	0.4
Average	3.6%	0.0	3.6%	0.0	0.3

TABLE 16
EB20 METRIC FOR ELECTRIC CUSTOMERS (CARE)

	Current	2024		2025	
Climate Zone	**EB20**	**EB20**	**Incremental Change in EB20**	**EB20**	**Incremental Change in EB20**
Coastal	1.9%	2.0%	0.1	2.0%	0.0
Desert	3.2%	3.3%	0.2	3.4%	0.1
Inland	2.4%	2.6%	0.1	2.6%	0.1
Mountain	3.4%	3.5%	0.2	3.6%	0.1
Average	2.2%	2.3%	0.1	2.3%	0.0

	2026		2027		
Climate Zone	**EB20**	**Incremental Change in EB20**	**EB20**	**Incremental Change in EB20**	**Total Change in EB20**
Coastal	2.0%	0.0	2.1%	0.0	0.1
Desert	3.4%	0.0	3.5%	0.0	0.3
Inland	2.6%	0.0	2.6%	0.0	0.2
Mountain	3.6%	0.0	3.7%	0.0	0.3
Average	2.3%	0.0	2.3%	0.0	0.2

TABLE 17
AAC – PUMA'S WITH ELECTRIC AR20 >15%, USING ENERGY BURDEN (NON-CARE)

PUMA #	County/City	Climate Zone	# of Housing Units	Current	2024	2025
02500	Imperial County--El Centro City PUMA	SDG&E DESERT	2	9.9%	10.4%	10.7%
07306	San Diego County (Northwest)--Escondido City (East) PUMA	SDG&E INLAND	44,980	5.2%	5.4%	5.5%
07306	San Diego County (Northwest)--Escondido City (East) PUMA	SDG&E MOUNTAIN	477	8.0%	8.3%	8.5%
07313	San Diego County (Central)--El Cajon & Santee Cities PUMA	SDG&E INLAND	70,527	5.7%	6.0%	6.1%
07321	San Diego County (Southwest)--Chula Vista (West) & National City Cities PUMA	SDG&E INLAND	5,458	5.2%	5.4%	5.5%

PUMA #	County/City	Climate Zone	# of Housing Units	2026	2027	Total Impact (2027 – Current)
02500	Imperial County--El Centro City PUMA	SDG&E DESERT	2	10.8%	10.9%	1.0
07306	San Diego County (Northwest)--Escondido City (East) PUMA	SDG&E INLAND	44,980	5.6%	5.6%	0.4
07306	San Diego County (Northwest)--Escondido City (East) PUMA	SDG&E MOUNTAIN	477	8.5%	8.6%	0.6
07313	San Diego County (Central)--El Cajon & Santee Cities PUMA	SDG&E INLAND	70,527	6.1%	6.2%	0.5
07321	San Diego County (Southwest)--Chula Vista (West) & National City Cities PUMA	SDG&E INLAND	5,458	5.6%	5.6%	0.4

TABLE 18
AAC PUMA's INCLUDING CARE DISCOUNTS, USING ENERGY BURDEN

PUMA #	County/City	Climate Zone	# of Housing Units	Current	2024	2025
07306	San Diego County (Northwest)--Escondido City (East) PUMA	SDG&E INLAND	44,980	3.4%	3.5%	3.6%
07306	San Diego County (Northwest)--Escondido City (East) PUMA	SDG&E MOUNTAIN	477	5.2%	5.4%	5.5%
07313	San Diego County (Central)--El Cajon & Santee Cities PUMA	SDG&E INLAND	70,527	3.7%	3.9%	4.0%

PUMA #	County/City	Climate Zone	# of Housing Units	2026	2027	Total Impact (2027 – Current)
07306	San Diego County (Northwest)--Escondido City (East) PUMA	SDG&E INLAND	44,980	3.6%	3.6%	0.3
07306	San Diego County (Northwest)--Escondido City (East) PUMA	SDG&E MOUNTAIN	477	5.6%	5.6%	0.4
07313	San Diego County (Central)--El Cajon & Santee Cities PUMA	SDG&E INLAND	70,527	4.0%	4.0%	0.3

VII. CONCLUSION

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

This concludes my supplemental testimony.

VIII. WITNESS QUALIFICATIONS

My name is Rachelle R. Baez and I am the Electric Rates Manager in the Customer Pricing department of SDG&E. My business address is 8330 Century Park Court, San Diego, California 92123. I have worked for SDG&E since June 2010 and have held various positions in Accounting Operations, Strategic & Financial Planning, and Electric Rates with increasing levels of responsibility. I received a Bachelor of Science degree in Business Administration with an emphasis in Finance from San Diego State University in 2011.

I have not previously testified before the California Public Utilities Commission; however, I have previously submitted testimony before the Federal Energy Regulatory Commission.

APPENDIX A
GLOSSARY OF TERMS

Acronyms	Definition
ACC	Areas of Affordability Concern
AL	Advice Letter
AR	Affordability Ratio
AR20	Affordability Ratio 20
AR50	Affordability Ratio 50
CARE	California Alternate Rate 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 for low-income household
EB50	Energy Burden for median-income household
ED	Energy Division
FF&U	Franchise Fees & Uncollectibles
FOF	Findings of Fact
GRC	General Rate Case
HM	Hours at Minimum Wage
OIR	Order Instituting Rulemaking
OP	Ordering Paragraph
PUMA	Public Use Microdata Area
SDMC	San Diego Municipal Code
TOU	Time-of-use
TY	Test Year