Company: San Diego Gas & Electric Company (U 902-E)
Proceeding: 2020/2021 Tree Trimming Balancing Account
Application: A.22-12-XXX
Exhibit: SDG&E-xx

SAN DIEGO GAS & ELECTRIC COMPANY

PREPARED DIRECT TESTIMONY OF

RACHELLE R. BAEZ

ON BEHALF OF SAN DIEGO GAS & ELECTRIC COMPANY

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

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PREPARED DIRECT TESTIMONY OF RACHELLE R. BAEZ ON BEHALF OF SAN DIEGO GAS & ELECTRIC COMPANY

I. OVERVIEW

Pursuant to Ordering Paragraphs (OPs) 5 and 6 of Decision (D.) 22-08-023, San Diego Gas & Electric Company (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. As required by OPs 5 and 6, this testimony provides the Affordability Ratio 20 (AR20) by climate zone, Affordability Ratio 50 (AR50) by climate zone, and Hours at Minimum Wage (HM) associated with both current revenues in effect and the annual revenue requirement requested. It also details:

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

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

c) For climate zones with Areas of Affordability Concern (AAC) as defined in the most recent annual Affordability Report,[1] AR20 by climate zones subdivided by Public Use Microdata Area (PUMA).

This testimony will further present additional analyses of (1) the impact on affordability of including California Alternate Rates for Energy (CARE) discounts for low-income households; and (2) energy burden to isolate the impact of the electric revenue requirement being requested. SDG&E argued for the inclusion of these metrics in the Affordability Order

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

Instituting Rulemaking 18-07-006 (Affordability 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.[2] 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.

As stated in the prepared direct testimony of Jason Kupfersmid, SDG&E is requesting to recover $70.3 million[3] in undercollected balances related to 2020 and 2021 vegetation management activities, amortized over 24 months, which represents a 1.8% increase over currently authorized revenues. Since the requested revenue requirement exceeds the Affordability Metric threshold, SDG&E is submitting the Affordability Metrics results.

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 California Alternate Rates for Energy (CARE) Analysis**
- **Section VI – Supplemental Energy Burden Analysis**
- **Section VII – Statement of Qualifications**

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

[3] Amount excludes franchise fees & uncollectibles (FF&U), which are updated annually outside this instant application. Amount including current FF&U factors is $72.9 million.

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.[4] 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.[5] 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 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.[6] 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.

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[4] *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).

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

[6] The number of households by climate zone were used from the AR calculator. Note, the Energy Division created the AR Calculator that is used for all calculations in this testimony and is updated annually. *See*, 2020 Affordability Ratio Calculator (July 8, 2022) (2020 AR Calculator), available at https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/affordability.

FIGURE 1

SDG&E BASELINE TERRITORY MAP

To understand the impact that the Tree Trimming Balancing Account (TTBA) revenue requirement request has on the Affordability Metrics, SDG&E calculated the electric essential usage bills (1) based on rates effective June 1, 2022,[7] and (2) based on the proposed revenue requirement.[8] The resulting electric essential usage bills are summarized in Tables 1 and 2 for non-CARE basic and non-CARE all-electric customers, respectively.[9]

[7] Current rates effective June 1, 2022 per advice letter (AL) 4004-E.

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

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

TABLE 1[10]

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

	Current[11]	Year 1			Year 2			Total Change Over Current	
Climate Zone	**Bill ($)**	**Bill ($)**	**Change ($)**	**%**	**Bill ($)**	**Change ($)**	**%**	**Change ($)**	**%**
Coastal	$107.83	$108.65	$0.82	0.76%	$108.65	$0.00	0.00%	$0.82	0.76%
Desert	$153.56	$154.73	$1.17	0.76%	$154.73	$0.00	0.00%	$1.17	0.76%
Inland	$117.49	$118.38	$0.90	0.76%	$118.38	$0.00	0.00%	$0.90	0.76%
Mountain	$156.02	$157.22	$1.19	0.76%	$157.22	$0.00	0.00%	$1.19	0.76%
Average	$112.72	$113.58	$0.86	0.76%	$113.58	$0.00	0.00%	$0.86	0.76%

TABLE 2

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

	Current	Year 1			Year 2			Total Change Over Current	
Climate Zone	**Bill ($)**	**Bill ($)**	**Change ($)**	**%**	**Bill ($)**	**Change ($)**	**%**	**Change ($)**	**%**
Coastal	$90.45	$91.14	$0.69	0.76%	$91.14	$0.00	0.00%	$0.69	0.76%
Desert	$201.59	$203.13	$1.54	0.76%	$203.13	$0.00	0.00%	$1.54	0.76%
Inland	$126.98	$127.95	$0.97	0.76%	$127.95	$0.00	0.00%	$0.97	0.76%
Mountain	$227.61	$229.35	$1.74	0.76%	$229.35	$0.00	0.00%	$1.74	0.76%
Average	$108.28	$109.10	$0.83	0.76%	$109.10	$0.00	0.00%	$0.83	0.76%

[10] SDG&E is requesting the revenue requirement to go into rates January 1 the year following final decision. For purposes of inputting into the AR Calculator, Current equals 2022, Year 1 equals 2024 and Year 2 equals 2025.

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

The electric average usage bills are summarized in Tables 3 and 4 for non-CARE, basic and non-CARE, all-electric customers, respectively.[12] While essential usage is based on the allocated 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	Year 1			Year 2			Total Change Over Current	
Climate Zone	**Bill ($)**	**Bill ($)**	**Change ($)**	**%**	**Bill ($)**	**Change ($)**	**%**	**Change ($)**	**%**
Coastal	$147.74	$148.87	$1.13	0.76%	$148.87	$0.00	0.00%	$1.13	0.76%
Desert	$163.77	$165.03	$1.25	0.76%	$165.03	$0.00	0.00%	$1.25	0.76%
Inland	$149.29	$150.43	$1.14	0.76%	$150.43	$0.00	0.00%	$1.14	0.76%
Mountain	$187.37	$188.80	$1.43	0.76%	$188.80	$0.00	0.00%	$1.43	0.76%
Average	$148.94	$150.08	$1.14	0.76%	$150.08	$0.00	0.00%	$1.14	0.76%

TABLE 4

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

	Current	Year 1			Year 2			Total Change Over Current	
Climate Zone	**Bill ($)**	**Bill ($)**	**Change ($)**	**%**	**Bill ($)**	**Change ($)**	**%**	**Change ($)**	**%**
Coastal	$128.01	$128.99	$0.98	0.76%	$128.99	$0.00	0.00%	$0.98	0.76%
Desert	$168.21	$169.49	$1.28	0.76%	$169.49	$0.00	0.00%	$1.28	0.76%
Inland	$160.46	$161.69	$1.23	0.76%	$161.69	$0.00	0.00%	$1.23	0.76%

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

Mountain	$223.78	$225.49	$1.71	0.76%	$225.49	$0.00	0.00%	$1.71	0.76%
Average	$143.42	$144.52	$1.10	0.76%	$144.52	$0.00	0.00%	$1.10	0.76%

III. AFFORDABILITY METRICS

A. Hours at Minimum Wage

The 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 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 of SDG&E's territory (City of San Diego and Non-City of San Diego) is $15/hour, consistent with the California statewide minimum wage.[15] Going forward from 2022, the minimum wage for the City of San Diego, which makes up around 40% of SDG&E's households, will increase annually based on the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W), U.S. city average,[16] which was recently announced to increase to $16.30 for 2023. Alternatively, Non-City of San Diego customers follow the California statewide

[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.

[16] San Diego Municipal Code, Chapter 3, Article 9, Division 1, Section 39.0107.

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.[17] Beginning January 1, 2023 the California statewide minimum wage will increase to $15.50 per hour for all employers. For purposes of forecasted HM, SDG&E uses the five-year average increase in CPI-W to forecast minimum wage for Years 1 and 2. [18]

The resulting HM metric for each climate zone is presented in Tables 5 and 6.[19]

TABLE 5

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

	Current	Year 1			Year 2			Total Change Over Current	
Climate Zone	**Hours**	**Hours**	**Change (hrs)**	**Change (%)**	**Hours**	**Change (hrs)**	**Change (%)**	**Change (hrs)**	**Change (%)**
Coastal	6.95	6.19	-0.76	-10.9%	5.95	-0.24	-3.9%	-1.00	-14.4%
Desert	11.96	10.65	-1.30	-10.9%	10.24	-0.42	-3.9%	-1.72	-14.4%
Inland	7.98	7.11	-0.87	-10.9%	6.83	-0.28	-3.9%	-1.15	-14.4%
Mountain	12.28	10.94	-1.34	-10.9%	10.51	-0.43	-3.9%	-1.76	-14.4%
Average	7.47	6.66	-0.81	-10.9%	6.40	-0.26	-3.9%	-1.07	-14.4%

[17] California Labor Code section 1182.12.

[18] The earliest SDG&E expects to implement this request is 2024, thus the Year 1 minimum wage assumed inflation increases are built upon the 2023 announced minimum wages.

[19] 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.

TABLE 6

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

	Current	Year 1			Year 2			Total Change Over Current	
Climate Zone	**Hours**	**Hours**	**Change (hrs)**	**Change (%)**	**Hours**	**Change (hrs)**	**Change (%)**	**Change (hrs)**	**Change (%)**
Coastal	6.95	6.56	-0.39	-5.6%	6.36	-0.21	-3.1%	-0.59	-8.5%
Desert	11.96	11.29	-0.66	-5.6%	10.94	-0.36	-3.1%	-1.02	-8.5%
Inland	7.98	7.54	-0.44	-5.6%	7.30	-0.24	-3.1%	-0.68	-8.5%
Mountain	12.28	11.60	-0.68	-5.6%	11.23	-0.36	-3.1%	-1.05	-8.5%
Average	7.47	7.06	-0.42	-5.6%	6.84	-0.22	-3.1%	-0.64	-8.5%

B. Affordability Ratio

The 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.[20] It is calculated by dividing the essential usage bill by the discretionary income for a given geography.[21] The 2020 AR Calculator calculates the AR that considers the essential usage bills for each commodity (electric, gas, water and telecommunications) and the tool is updated annually.[22]

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 ran the macro to calculate and populate the results by year at the 20th and 50th percentiles of income distribution in SDG&E's

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

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

[22] *See* 2020 AR Calculator.

territory. The AR Calculator calculates individual AR values for each commodity using the essential usage bill for the given commodity in the numerator with 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.[23] 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 CCC.
2) Other commodity bills (gas, telecommunications and water) are pre-populated by the AR Calculator.
3) Current metrics are based on current electric rates effective June 1, 2022, per AL 4004-E.
4) Proposed metrics are based on SDG&E's proposed revenue requirement as requested in the prepared direct testimony of Jason Kupfersmid.
5) The Electric AR20 and AR50 metrics are meant to represent the percentage of income after housing and all other essential commodity (gas, water and

[23] 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." Source: https://www.census.gov/programs-surveys/geography/guidance/geo-areas/pumas.html

telecommunications) expenses that essential electric bills require for households at the 20th lowest and 50th income percentile, respectively.

The resulting individual electric AR20 and AR50 metrics for each climate zone is presented in Tables 7 and 8, respectively.[24]

TABLE 7

AR20 METRIC FOR ELECTRIC CUSTOMERS (NON-CARE)

	Current	Year 1		Year 2		
Climate Zone	**AR20**	**AR20**	**Incremental Change in AR20**	**AR20**	**Incremental Change in AR20**	**Total Change in AR20**
Coastal	6.50%	6.45%	-0.05	6.38%	-0.07	-0.12
Desert	7.44%	7.24%	-0.19	7.10%	-0.15	-0.34
Inland	9.73%	9.85%	0.12	9.85%	0.00	0.11
Mountain	9.09%	8.94%	-0.15	8.81%	-0.14	-0.29
Average	7.94%	7.97%	0.02	7.92%	-0.04	-0.02

[24] The results in Tables 7 and 8 reflect the increases in electric essential bills along with the embedded calculator assumptions such as inflation for income, housing and other utility bills, which were unchanged by SDG&E.

TABLE 8

AR50 METRIC FOR ELECTRIC CUSTOMERS (NON-CARE)

	Current	Year 1		Year 2		
Climate Zone	**AR50**	**AR50**	**Incremental Change in AR50**	**AR50**	**Incremental Change in AR50**	**Total Change in AR50**
Coastal	1.78%	1.72%	-0.06	1.68%	-0.04	-0.10
Desert	2.96%	2.87%	-0.10	2.80%	-0.07	-0.17
Inland	1.97%	1.91%	-0.06	1.87%	-0.04	-0.11
Mountain	2.99%	2.89%	-0.10	2.82%	-0.07	-0.17
Average	1.88%	1.82%	-0.06	1.78%	-0.04	-0.10

IV. AREAS OF AFFORDABILITY CONCERN (AAC)

AACs 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 2020 Annual Affordability Report, for electric service, an AAC is designated by areas where the AR20 is in excess of 15%.[25] Table 9 presents the PUMAs where the Electric AR20 is greater than 15% for either the current year or any projected year, making them areas of affordability concern.[26]

[25] 2020 Annual Affordability Report at 19.

[26] The results in Table 9 reflect the increases in electric essential bills along with the embedded calculator assumptions such as inflation for income, housing and other utility bills, which were unchanged by SDG&E.

TABLE 9

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

PUMA #	County/City	Climate Zone	# of Housing Units	Current	Year 1	Year 2	Total Impact (Year 2 – Current)
02500	Imperial County--El Centro City PUMA[27]	SDG&E DESERT	2	15.63%	15.31%	15.07%	-0.56
07306	San Diego County (Northwest)--Escondido City (East) PUMA	SDG&E INLAND	44,980	21.18%	22.22%	22.63%	1.45
07306	San Diego County (Northwest)--Escondido City (East) PUMA	SDG&E MOUNTAIN	477	27.62%	28.60%	28.93%	1.31
07313	San Diego County (Central)--El Cajon & Santee Cities PUMA	SDG&E INLAND	70,527	21.62%	22.50%	22.81%	1.19

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% average 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.[28] 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

[27] PUMA 02500 is designated as an SDG&E territory in the AR Calculator; however, SDG&E does not serve Imperial County.

[28] Public Utilities Code Section §739.1; D.01-06-010, OP 2. Further, as of September 2022, SDG&E has achieved a 122% 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. *See* A.19-11-003, et al., Monthly Report of SDG&E on Low Income Assistance Programs for September 2022 (October 21, 2022), Appendix A, 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

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."[29]

Accordingly, because CARE discounts are relevant to the issue of affordability, SDG&E provides supplemental HM and AR20 metrics including the CARE discount in the bills in Tables 10, 11, and 12, respectively.[30] In addition, SDG&E provides the AAC PUMAs from Section IV with the CARE discount included in Table 13. These figures were developed using the "2020 CARE Rates" pre-loaded scenario in the AR Calculator, updating the electric essential usage bills with current and proposed CARE bills. By utilizing this scenario, this also includes the impact of the gas CARE discount.

TABLE 10

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

	Current	Year 1			Year 2			Total Change Over Current	
Climate Zone	**Hours**	**Hours**	**Change (hrs)**	**Change (%)**	**Hours**	**Change (hrs)**	**Change (%)**	**Change (hrs)**	**Change (%)**
Coastal	4.52	4.03	-0.49	-10.9%	3.87	-0.16	-3.9%	-0.65	-14.4%
Desert	7.78	6.93	-0.85	-10.9%	6.66	-0.27	-3.9%	-1.12	-14.4%
Inland	5.19	4.62	-0.56	-10.9%	4.44	-0.18	-3.9%	-0.75	-14.4%
Mountain	7.98	7.12	-0.87	-10.9%	6.84	-0.28	-3.9%	-1.15	-14.4%
Average	4.86	4.33	-0.53	-10.9%	4.16	-0.17	-3.9%	-0.70	-14.4%

[29] 2020 Annual Affordability Report at 52.

[30] The results in Tables 10-12 reflect the increases in electric essential bills along with the embedded calculator assumptions such as inflation for income, housing and other utility bills, which were unchanged by SDG&E.

TABLE 11

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

	Current	Year 1			Year 2			Total Change Over Current	
Climate Zone	Hours	Hours	Change (hrs)	Change (%)	Hours	Change (hrs)	Change (%)	Change (hrs)	Change (%)
Coastal	4.52	4.27	-0.25	-5.6%	4.13	-0.13	-3.1%	-0.39	-8.5%
Desert	7.78	7.34	-0.43	-5.6%	7.11	-0.23	-3.1%	-0.66	-8.5%
Inland	5.19	4.90	-0.29	-5.6%	4.75	-0.15	-3.1%	-0.44	-8.5%
Mountain	7.98	7.54	-0.44	-5.6%	7.30	-0.24	-3.1%	-0.68	-8.5%
Average	4.86	4.59	-0.27	-5.6%	4.45	-0.14	-3.1%	-0.41	-8.5%

TABLE 12

AR20 METRIC FOR ELECTRIC CUSTOMERS (CARE)

	Current	Year 1		Year 2		
Climate Zone	AR20	AR20	Incremental Change in AR20	AR20	Incremental Change in AR20	Total Change in AR20
Coastal	4.19%	4.16%	-0.03	4.11%	-0.04	-0.08
Desert	4.81%	4.69%	-0.12	4.59%	-0.09	-0.22
Inland	6.24%	6.31%	0.07	6.31%	-0.01	0.06
Mountain	5.87%	5.78%	-0.10	5.69%	-0.09	-0.19
Average	5.11%	5.12%	0.01	5.09%	-0.03	-0.02

TABLE 13

AAC PUMA's INCLUDING CARE DISCOUNTS[31]

PUMA #	County/City	Climate Zone	# of Housing Units	Current	Year 1	Year 2	Total Impact (Year 2 – Current)
07306	San Diego County (Northwest)--Escondido City (East) PUMA	SDG&E MOUNTAIN	477	17.64%	18.24%	18.44%	0.80

VI. SUPPLEMENTAL ENERGY BURDEN (EB) ANALYSIS

The EB 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."[32] The EB metric is an additional, complementary metric that should be considered in conjunction with the required Affordability Metrics addressed above. The EB metric is a simple, easily understood calculation that isolates the impact of SDG&E's TTBA request and excludes the uncertainty posed by non-discretionary expenses outside the Commission's control (e.g., housing costs). In addition, it allows for greater ease of comparison across utility services. The electric EB formula is shown below:

Electric EB = Electric Essential Bill / Income

The AR metrics discussed above remove housing and other essential utility/service bills from total income. The electric EB metric does not remove any bills or expenses from total

[31] When incorporating the CARE Discount, only PUMA 07306 - Mountain Climate Zone is designated as an AAC, where the Electric AR20 is greater than 15% for either the current year or any projected year.

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

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, similar to the HM metric.

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	Year 1		Year 2		
Climate Zone	**EB50**	**EB50**	**Incremental Change in EB50**	**EB50**	**Incremental Change in EB50**	**Total Change in EB50**
Coastal	1.29%	1.23%	-0.05	1.20%	-0.03	-0.09
Desert	2.35%	2.26%	-0.10	2.19%	-0.06	-0.16
Inland	1.47%	1.41%	-0.06	1.37%	-0.04	-0.10
Mountain	2.33%	2.23%	-0.10	2.17%	-0.06	-0.16
Average	1.38%	1.32%	-0.06	1.29%	-0.04	-0.09

TABLE 15

EB20 METRIC FOR ELECTRIC CUSTOMERS (NON-CARE)

	Current	Year 1		Year 2		
Climate Zone	**EB20**	**EB20**	**Incremental Change in EB20**	**EB20**	**Incremental Change in EB20**	**Total Change in EB20**
Coastal	2.93%	2.81%	-0.12	2.73%	-0.08	-0.20
Desert	4.92%	4.72%	-0.20	4.59%	-0.13	-0.33
Inland	3.75%	3.59%	-0.15	3.50%	-0.10	-0.25
Mountain	5.21%	5.00%	-0.21	4.86%	-0.14	-0.35
Average	3.32%	3.18%	-0.14	3.09%	-0.09	-0.22

TABLE 16

EB20 METRIC FOR ELECTRIC CUSTOMERS (CARE)

	Current	Year 1		Year 2		
Climate Zone	**EB20**	**EB20**	**Incremental Change in EB20**	**EB20**	**Incremental Change in EB20**	**Total Change in EB20**
Coastal	1.91%	1.83%	-0.08	1.78%	-0.05	-0.13
Desert	3.20%	3.07%	-0.13	2.98%	-0.08	-0.21
Inland	2.44%	2.34%	-0.10	2.27%	-0.06	-0.16
Mountain	3.39%	3.25%	-0.14	3.16%	-0.09	-0.23
Average	2.16%	2.07%	-0.09	2.01%	-0.06	-0.15

TABLE 17

AAC – PUMAs WITH ELECTRIC AR20 >15%, USING ENERGY BURDEN (NON-CARE)

PUMA #	County/City	Climate Zone	# of Housing Units	Current	Year 1	Year 2	Total Impact (Year 2 – Current)
02500	Imperial County--El Centro City PUMA	SDG&E DESERT	2	9.88%	9.55%	9.34%	-0.54
07306	San Diego County (Northwest)--Escondido City (East) PUMA	SDG&E INLAND	44,980	5.17%	4.96%	4.82%	-0.35
07306	San Diego County (Northwest)--Escondido City (East) PUMA	SDG&E MOUNTAIN	477	7.95%	7.63%	7.42%	-0.53
07313	San Diego County (Central)--El Cajon & Santee Cities PUMA	SDG&E INLAND	70,527	5.71%	5.47%	5.32%	-0.38

TABLE 18

AAC PUMA's INCLUDING CARE DISCOUNTS, USING ENERGY BURDEN

PUMA #	County/City	Climate Zone	# of Housing Units	Current	Year 1	Year 2	Total Impact (Year 2 – Current)
07306	San Diego County (Northwest)--Escondido City (East) PUMA	SDG&E MOUNTAIN	477	5.17%	4.96%	4.83%	-0.35

This concludes my prepared direct testimony.

VII. 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 previously testified before the California Public Utilities Commission and before the Federal Energy Regulatory Commission.