

Application of San Diego Gas & Electric
Company (U 902 E) for Authority to Update
Marginal Costs, Cost Allocation, and Electric
Rate Design.

Application: 23-01-008

Exhibit No.: _____

CHAPTER 1

REVISED PREPARED DIRECT TESTIMONY OF

ADAM PIERCE SAMANTHA PATE

ON BEHALF OF SAN DIEGO GAS & ELECTRIC COMPANY

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

January 17, 2023 September 29, 2023



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**REVISED PREPARED DIRECT TESTIMONY OF
ADAM PIERCE/SAMANTHA PATE
(CHAPTER 1)**

I. INTRODUCTION

This General Rate Case (GRC) Phase 2 Application presents San Diego Gas & Electric Company's (SDG&E) electric revenue allocation and rate design proposals associated with the implementation of SDG&E's test year (TY) 2024 GRC Phase 1 electric revenue requirement. The testimony supporting the Application presents SDG&E's marginal cost studies, revenue allocation, and rate design.

This testimony adopts the prepared direct testimony of Adam Pierce supporting SDG&E's 2024 GRC Phase 2 Application. The purpose of my revised prepared direct testimony is to discuss the overarching policy framework that guides SDG&E's proposals for revenue allocation and rate design. This Application covers the years 2024-2027.

My testimony is organized as follows:

- Section II – Overview of SDG&E's TY 2024 GRC Phase 2 Application
- Section III – SDG&E's Policy Objectives and Rate Design Proposals Seek to Balance the California Public Utilities Commission's (Commission's or CPUC) Rate Design Policy Objectives
- Section IV – Revenue Allocations
- Section V – Updated Standard Base Time-of-Use (TOU) Periods, Customer Transition, and Customer Education
- Section VI – Current TOU Differentials Should Be Maintained
- Section VII – Medium Commercial Customer Class Proposal and Applicability
- Section VIII – Proposal to Update Seasonality Component, Schedule EV-TOU-5, and Medical Baseline Discount Methodology for Residential Customers
- Section IX – Proposal to Assess Critical Peak Pricing (CPP) Periods Less Frequently

- Section X – Additional Compliance Requirements
- Section XI – Implementation Timing
- Section XII – Witness Qualifications

II. OVERVIEW OF SDG&E’S TY 2024 GRC PHASE 2 APPLICATION

This Application includes the traditional elements of a GRC Phase 2 – cost allocation and rate design – as well as specific requirements identified within various Commission decisions and directives, including but not limited to Decision (D.) 21-07-010 (2019 GRC Phase 2 Decision) and D.17-01-006, (TOU Policy Decision). SDG&E is proposing the following:

- ~~Limited changes to residential rate design,¹ as significant residential rate reform is being considered concurrently in Rulemaking (R.) 22-07-005;~~
- Update base TOU periods to extend weekday super-off-peak hours of 10 AM – 2 PM year-round (currently offered in March and April only) for all customer classes;
- Maintain SDG&E’s current TOU differentials given the lack of observable market data supporting a drastic change and continue alignment with current Commission policy, except as needed to accommodate SDG&E’s proposal for residential tiered rate seasonality;
- Split the current Medium/Large Commercial & Industrial (M/L C&I) customer class into two customer classes: Medium Commercial and Large C&I;
- Use the System Average Percent Change (SAPC) revenue allocation methodology to develop rates for certain rate components;
- Maintain current revenue allocation methodologies for the Public Purpose Programs (PPP) rate components, except updated allocations based on more recent data for the Energy Efficiency component;
- Evaluate CPP periods less frequently, as changes require significant customer education and outreach;

¹~~In this Application, SDG&E is proposing to update its TOU periods for all customer classes, including residential customers, and to update the residential Medical Baseline program’s discount methodology. SDG&E is proposing these changes here as it does not anticipate these items will be addressed or otherwise impacted by R. 22-07-005.~~

- 1 • Move the rate mechanism for moderating seasonal bill volatility from the delivery
2 rate to the commodity rate for tiered residential rates, adjust the super off-peak
3 volumetric distribution rate for Residential Schedule EV-TOU-5, and Uupdate the
4 Medical Baseline discount to a line-item discount for both tiered and non-tiered
5 rates; and
- 6 • ~~Propose m~~Miscellaneous updates to rate design and tariffs that will provide
7 greater clarification to SDG&E customers.

8 Because significant changes to residential rate design are being concurrently addressed in
9 the Rulemaking to Advance Demand Flexibility Through Electric Rates (R.22-07-005) (Demand
10 Flexibility Rulemaking), SDG&E ~~is proposing~~ limited changes to residential rate design in ~~this~~
11 ~~its original 2024 GRC Phase 2 application proceeding~~ the original testimony served in this
12 ~~proceeding on January 17, 2023.~~² Since that time, the scope of the Demand Flexibility
13 Rulemaking has been clarified and issues that SDG&E believed would be addressed in the
14 Demand Flexibility Rulemaking have been deemed out of scope. Accordingly, in addition to
15 updating its testimony to reflect the 2023 sales forecast, SDG&E has further updated its
16 testimony to include two additional residential rate design proposals, as described in the
17 Supplemental Testimony of SDG&E witness Utama. First, SDG&E is proposing to move the
18 adjustment mechanism that moderates seasonal bill volatility in residential tiered rates from the
19 delivery rate (i.e., UDC rate) to the commodity rate (i.e., EECC rate), which will achieve
20 consistency in seasonality rate design between tiered and untiered residential rates. Second,
21 SDG&E is proposing to adjust the super off-peak period volumetric distribution rate for
22 Schedule EV-TOU-5, in order to reflect marginal cost-based rates. SDG&E believes that
23 ~~consideration of residential rate design proposals within its GRC Phase 2 would unnecessarily~~
24 ~~increase the burden on SDG&E, the Commission, and other Intervenors, and could result in~~
25 ~~conflicting decisions from the Commission.~~

² A.23-01-008.

1 Additionally, SDG&E is proposing to maintain the TOU differentials in its current
2 effective commodity rates for all customer classes, except as needed to accommodate SDG&E's
3 proposal for residential tiered rate seasonality. SDG&E's marginal commodity cost study, as
4 shown in the revised prepared direct testimony of SDG&E witness Jeff DeTuri (Chapter 5),
5 forecasts that the TOU differentials from a purely forecasted, cost-based perspective, for 2024
6 and 2027, will be significantly lower than the current TOU differentials, particularly in the
7 summer months. However, as discussed below, SDG&E believes that it is premature to
8 significantly decrease TOU differentials (*e.g.*, the difference between the on-peak period and
9 super off-peak period price) based solely on forecasts at this time.

10 Pursuant to D.17-08-030, SDG&E is required to file an annual Tier 2 Advice Letter (AL)
11 that updates the critical event period based on a loss of load analysis.³ However, in the interest
12 of customer understanding, education, and the significance of a change in the CPP period,
13 SDG&E is proposing to eliminate this compliance requirement and evaluate its CPP event period
14 in every GRC Phase 2 starting with the subsequent GRC cycle.

15 The Application is further supported by the following testimony:

- 16 • Chapter 2 (Ray C. Utama): Presents SDG&E's updated electric revenue
17 allocation and proposals for changes to revenue allocations, as well as revenue
18 allocation compliance requirements.
- 19 • Chapter 3 (Ray C. Utama, Erica Wissman, Hannah Campi, and Gwendolyn
20 Morien Evelyn Luna): Presents SDG&E's proposals to update rates to reflect
21 proposed TOU periods, revenue allocations, electric rate design, and illustrative
22 bill impacts to support those proposals, including:
 - 23 ○ Update to the current Residential Medical Baseline methodology and
24 expansion of a Medical Baseline Program Discount to non-tiered
25 residential rates;

³ D.17-08-030, Ordering Paragraph (OP) 32 at 92.

- Movement toward more cost-based rates for non-residential customers, including increases to existing monthly service fees; and
- Division of the current M/L C&I customer class into a Medium Commercial customer class and a Large C&I customer class and illustrative rates.
- Chapter 4 (William G. Saxe): Presents SDG&E’s proposed distribution marginal costs (both customer costs and demand costs) and the cost basis for distribution revenue allocation.
- Chapter 5 (Jeff DeTuri): Presents SDG&E’s commodity marginal cost, including both energy costs and generation capacity costs, the cost-based commodity and Competition Transition Charge (CTC) revenue allocations, and data to support SDG&E’s current TOU periods, as well as the deadband tolerance analysis required in each GRC Phase 2 Application.⁴
- Chapter 6 (William G. Saxe): Presents SDG&E’s Street Lighting cost studies and associated rate design proposals.
- Chapter 7 (Jeff Nightingale): Describes the process for converting Schedule OL-1 lamps to Light Emitting Diode (LED) technology, including the costs for completing these conversions.
- Chapter 8 (Evelyn Luna): Proposes miscellaneous tariff and rate design changes.
- Chapter 9 (Rachelle Baez): Presents Affordability Metrics as required by D.22-08-023.
- Supplemental Testimony (Ray Utama): Presents residential rate design proposals for seasonality and Schedule EV-TOU-5.

III. SDG&E’S POLICY OBJECTIVES AND RATE DESIGN PROPOSALS SEEK TO BALANCE THE COMMISSION’S RATE DESIGN POLICY OBJECTIVES

SDG&E continues to be a leader in providing clean energy and advancing technology, all while providing safe and reliable service. SDG&E’s accomplishments include:

- Recognized leader for its wildfire safety and mitigation efforts;

⁴ SDG&E’s proposed deadband tolerance methodology was approved with modifications in Resolution E-4948 on November 29, 2018. SDG&E subsequently filed Advice Letter AL 3064-E-A on January 1, 2019, which was approved and became effective as of January 2, 2019.

- 1 • Procuring approximately fifty-~~five~~nine percent of its power from renewable
2 resources;⁵
- 3 • Integrating over ~~1,82,000~~1,82,000 megawatts (MW) of customer-sited solar from over
4 ~~250277~~250277,000 customers;⁶
- 5 • Serving ~~~93,500~~~121,000 plug-in electric vehicles within its service territory,
6 making clean driving more accessible with several programs available to
7 customers including the Power-Your-Drive program, and expanding access to
8 electric vehicle charging at businesses, multi-family communities, and
9 disadvantaged neighborhoods; and
- 10 • Receiving the 2021 National Reliability Award, the 2022 Outstanding Grid
11 Reliability Award, as well as receiving the “Best in the West” award for electric
12 reliability for 17 straight years.⁷

13 Despite significant progress in these areas, rate design has not evolved alongside a
14 rapidly changing energy marketplace, and this disconnect represents a potential barrier for
15 customer technology adoption and customer choice. SDG&E commends the Commission for
16 addressing demand flexibility and revisions to residential rate design, as well as ~~considering~~
17 ~~adopting revised updated~~adopting revised updated rate design principles (RDPs) and ~~considering~~
18 ~~more broadly in the Demand Flexibility Rulemaking.~~⁸ ~~However, acknowledging that these two~~
19 ~~proceedings will be ongoing concurrently, SDG&E’s proposals in this Application are intended~~
20 ~~to avoid conflicting decisions and duplicative work that would occur if residential rate design~~
21 ~~was considered in this proceeding.~~ To help ensure the continued pursuit of the state’s clean
22 energy goals in a sustainable manner, it is critical to move toward rates that reflect accurate
23 prices to help incentivize customer behavior, and, if necessary for policy reasons, provide
24 incentives or subsidies that are direct and transparent.

⁵ R.18-07-003, SDG&E’s Draft 2022-2023 Renewable Portfolio Standard Procurement Plan – Public Version (July 17, 2022~~2023~~) at 3 (SDG&E’s procured 55~~59~~% of its power from renewable resources in 2021~~2022~~).

⁶ 2022-2023 estimates from California Distributed Generation Statistics, available at <https://www.californiadgstats.ca.gov/charts/>.

⁷ PA Consulting ReliabilityOne™ Awards.

⁸ See generally R.22-07-005.

1 SDG&E continues to advocate for movement towards more cost-based rates as outlined
2 by the RDPs in Figure APSP-1 above. In addition, SDG&E recognizes the importance of
3 ensuring balance of all the Commission’s RDPs. SDG&E in this Application is seeking to
4 continue to move forward with more cost-based rates with the rate design proposal, discussed in
5 the revised prepared direct testimony of SDG&E witnesses Ray C. Utama, Erica Wissman,
6 Hannah Campi, and ~~Gwendolyn Morien~~Evelyn Luna (Chapter 3) to increase certain existing
7 Monthly Service Fees (MSF) of the Small Commercial, proposed Medium Commercial, Large
8 C&I, and Agricultural customer classes for the years 2024-2027. SDG&E’s proposals to
9 increase current MSFs result in offsetting decreases to other rate components, helping reduce bill
10 volatility for customers, and providing rates more closely based on marginal cost (RDP 2) and
11 cost-causation principles-(RDP 3). In addition, SDG&E’s proposal to continue use of the
12 revenue allocation SAPC methodology for certain rate components is intended to provide
13 customers with greater rate stability. Further, SDG&E’s proposal to divide the current M/L C&I
14 class into a Medium Commercial customer class and Large C&I customer class will provide
15 “Medium” and “Large” commercial customers with rates more closely based on their cost of
16 service (RDP 3). SDG&E’s proposals in Supplemental Testimony (witness Utama) will improve
17 customer understanding by providing consistent summer and winter delivery rates (RDP 7) and
18 reduce technology-specific non-transparent cost shifts (RDPs 8 and 9). Finally, SDG&E’s
19 proposal to extend the super off-peak TOU period from 10am to 2pm year-round will also
20 improve customer understanding by providing consistent TOU periods year-round (RDP 7), and
21 will encourage economically efficient consumption during low-cost daytime hours, when
22 renewable resources are more available and greenhouse gas (GHG) emissions are lower (RDP 4).

1 **A. Lower Volumetric Rates are Needed to Incentivize Electrification**

2 California is moving toward electrification of homes and buildings, a necessary step to
3 reduce harmful greenhouse gases (GHGs) and other emissions to help meet the state’s collective
4 climate goals. However, the current residential rate design structure is misaligned with the
5 state’s goals, as nearly all costs are recovered in volumetric energy rates. In order to incentivize
6 broad electrification from all customers, including non-residential customers, it is important to
7 reduce volumetric rates. ~~and For its residential customers,~~ SDG&E is proposing to reduce
8 volumetric rates ~~do this~~ by recovering more costs in a monthly fixed rate component. The
9 Commission will decide the issue of income-based fixed charges for default, and potentially all,
10 residential rate schedules in accordance with Assembly Bill 205 in the ongoing Demand
11 Flexibility Rulemaking.¹¹ SDG&E is hopeful that the Commission will establish an income-
12 based fixed charge for all residential rates that meaningfully lowers volumetric rates and
13 prevents certain customers from rate arbitrage.

14 SDG&E’s revised testimony herein reflects developments that have occurred in the
15 Demand Flexibility Rulemaking. Since SDG&E filed this application on January 17, 2023, the
16 Commission has more clearly defined the scope of Track A of the Demand Flexibility
17 Rulemaking, which is considering income-graduated fixed charges for residential rates.
18 Specifically, the Commission determined that TOU rate design was beyond the scope of Track
19 A.¹² A scoping memo and ruling was recently issued in the Demand Flexibility Rulemaking,
20 where the Commission will decide the issue of income-based fixed charges for default, and
21 potentially all, residential rate schedules in accordance with Assembly Bill 205.¹³ Two scoping

¹¹ See R.22-07-005.

¹² See, R.22-07-005, Phase 1 Track A: Income Graduated Fixed Charge Guidance Memo (January 17, 2023) at 4-5.

1 ~~items in Track A, which will address the income-based fixed charge, ask (1) whether the~~
2 ~~Commission should “establish an income-graduated fixed charge for *all* residential rates or only~~
3 ~~certain residential rates;” and (2) “[h]ow the fixed charge should vary between default residential~~
4 ~~rates and non-default residential rates[.]”¹⁴ Additionally, the recent Commission decision~~
5 ~~adopting a successor to the current Net Energy Metering (NEM) 2.0 Tariff stated that the~~
6 ~~Commission considers the Demand Flexibility Rulemaking to be “a more appropriate venue to~~
7 ~~consider the issue of an income-graduated fixed charge applicable to all customers, which will~~
8 ~~include NEM 1.0 and NEM 2.0 customers.”¹⁵ As stated by SDG&E early in the Demand~~
9 ~~Flexibility Rulemaking proceeding, SDG&E is hopeful that the Commission will establish an~~
10 ~~income-based fixed charge for all residential rates so as to prevent certain customers from rate~~
11 ~~arbitrage.¹⁶~~

12 Accordingly, in light of the ~~ongoing parallel work~~narrowed scope in the Demand
13 Flexibility Rulemaking, Track A, SDG&E is proposing ~~limited~~ changes to Residential customer
14 class rate design in ~~this~~ its supplemental testimony in the instant application~~Application~~. In
15 order to avoid conflicting proposals and workstreams, SDG&E ~~plans to propose other changes to~~
16 ~~residential rate design in R.22-07-005 as they will likely be impacted by the changes in that~~
17 ~~proceeding~~limits its proposed residential rate design changes in supplemental testimony to those
18 issues that are out of scope or are unlikely to be addressed in a decision resulting from R.22-07-
19 005, Track A. Thus, ~~in~~ in this Application, SDG&E is proposing an update to TOU periods for
20 all customer classes, including residential, to move the rate adjustment mechanism that
21 moderates residential bill seasonality from the delivery rate to the commodity rate for its tiered

1 residential rates, to adjust the super-off peak rate for Schedule EV-TOU-5 to recover marginal
2 costs, and an update to the Medical Baseline Program discount methodology and an expansion of
3 the Medical Baseline Program Discount to non-tiered rates,~~as SDG&E does not anticipate these~~
4 ~~issues will be addressed in or otherwise impacted by the Demand Flexibility Rulemaking.~~

5 **B. Commission Policy & Recent Events Point to a Need for Strong Load-**
6 **Shifting Incentives**

7 SDG&E believes it is important for customers to receive price signals that incentivize
8 changes in behavior that will benefit the electric grid and its customers. As discussed in Section
9 VI, SDG&E is proposing to maintain its current TOU price differentials despite its commodity
10 cost study, as presented in the revised prepared direct testimony of SDG&E witness Jeff DeTuri
11 (Chapter 5), showing a significant decrease in the cost-based price differentials, particularly for
12 summer months, for its TOU periods. Moderating the price differentials that customers see
13 could result in a lower incentive for customers to shift usage outside the on-peak period. Making
14 a drastic change based purely on current forecasts is of concern to SDG&E, especially given that
15 the state has experienced heat events in recent years that have strained its power grid and its
16 energy supply. It is in the interest of all involved parties – SDG&E, customers, the state, the
17 Commission, and others – to avoid these types of events.

18 Strong price signals are one tool to incentivize customers to regularly shift their usage
19 outside the peak period and support state policy objectives of reducing GHGs and increasing grid
20 reliability. The Commission recently affirmed this policy in D.22-12-056, stating “[h]ighly
21 differentiated time-of-use rates are closer to the energy prices required to run the grid” and
22 “[h]ighly differentiated time-of-use rates encourage electrification and help California reach its
23 greenhouse gas emissions reduction goals.”¹⁷ Accordingly, SDG&E is proposing to maintain the

¹⁷ D.22-12-056, Findings of Fact 112 and 114 at 217-218.

1 current TOU differentials, as approved in its last GRC Phase 2, rather than update them based on
2 the marginal commodity cost study presented in the revised prepared direct testimony of
3 SDG&E witness Jeff DeTuri (Chapter 5).

4 **IV. REVENUE ALLOCATIONS**

5 Consistent with current practice adopted in D.21-07-010, SDG&E is proposing to
6 maintain use of the SAPC methodology when implementing new sales forecasts, as discussed in
7 detail in the revised prepared direct testimony of SDG&E witness Ray C. Utama (Chapter 2). In
8 line with ~~(RDP 6) regarding providing~~ greater rate and bill stability, SDG&E believes continuing
9 to use the SAPC methodology will help smooth out volatility in class average rate changes due to
10 changes in sales caused by economic factors, technology adoption, and load departure.

11 Additionally, SDG&E is proposing to maintain the current revenue allocation
12 methodologies for the PPP subcomponents, as adopted in D.21-07-010, with modification to
13 accommodate division of the current M/L C&I customer class into the Medium Commercial
14 class and Large C&I class. ~~Further, as m~~Most PPP subcomponents are dependent on
15 Commission-adopted sales forecasts, which are updated annually via~~when a new sales forecast~~
16 ~~adopted annually in~~ SDG&E's Energy Resource Recovery Account (ERRA) Forecast
17 Applications, ~~A.22-05-025 filed May 31, 2022,~~¹⁸ SDG&E is proposing to continue the current
18 methodology to update its PPP rates annually via implementation advice letter. Updating PPP
19 subcomponents annually based on the most recently adopted sales forecast and latest PPP
20 revenue requirements reflects the most up-to-date conditions and is the most equitable way to
21 minimize potential cost shifts between customer classes ~~based on the current adopted revenue~~
22 ~~allocation methodologies of the PPP subcomponents.~~

¹⁸ ~~See, e.g., D.22-12-042 approving SDG&E's ERRA Forecast Application.~~

1 The only exception to SDG&E’s proposal to maintain current treatment for PPP
2 components is SDG&E’s proposal to update the revenue allocation factors for the Energy
3 Efficiency (EE) PPP subcomponent. EE allocations are based on forecasted EE spending by
4 customer class, as approved in D.05-09-043, with the current allocations based on the 2019
5 forecasted program budget.¹⁹ ~~Consistent with past GRC Phase 2 applications,~~ SDG&E is
6 proposing to update EE revenue allocation factors with the ~~most recent~~ forecasted EE program
7 budget year 2022. Revenue allocation proposals are discussed in more detail in the revised
8 prepared direct testimony of SDG&E witness Ray C. Utama (Chapter 2).

9 **V. UPDATED STANDARD BASE TIME-OF-USE (TOU) PERIODS, CUSTOMER**
10 **TRANSITION, AND EDUCATION**

11 SDG&E is required to analyze its Base TOU Periods with every GRC Phase 2 application
12 and propose new TOU periods if warranted.²⁰ As described in the revised prepared direct
13 testimony of SDG&E witness Jeff DeTuri (Chapter 5), SDG&E evaluated its current TOU
14 periods using two methodologies: 1) a Loss of Load Expectation (LOLE) analysis; and 2) a
15 Deadband Tolerance analysis.²¹ The LOLE determines the probability of SDG&E not meeting
16 load in a given hour. The results, which are described in more detail in the revised prepared
17 direct testimony of SDG&E witness Jeff DeTuri (Chapter 5), highlight a greater likelihood of
18 loss of load during SDG&E’s current and proposed on-peak TOU period when using the same
19 assumptions as the Integrated Resource Plan (IRP). Additionally, SDG&E’s Deadband
20 Tolerance analysis compares the top 100 hours with existing TOU periods to determine if a
21 certain percentage of hours fall outside the current On-Peak Period, and whether a percentage of
22 the bottom 100 hours fall outside the Super Off-Peak Period. All top 100 hours fall into

¹⁹ D.21-07-010 at 22.

²⁰ D.17-01-006, Appendix 1, Policy Guideline #6 at 2.

²¹ The Deadband Tolerance methodology was approved in AL 3064-E/A. *See e.g.*, n.4, *supra*.

1 SDG&E’s current and proposed On-Peak Period, and all bottom 100 hours occur during
2 SDG&E’s proposed Super Off-Peak Period.

3 **A. Updated Standard Base TOU Periods**

4 The Commission has adopted general principles in respect to developing and
5 implementing changes in Base TOU periods.²² For instance, Policy Guideline #5 of D.17-01-
6 006, Appendix 1 states that “Base TOU periods should continue for a minimum of five years
7 (unless [there are] material changes ... [that warrant a change], and each IOU should propose
8 new Base TOU periods, if warranted, at least every two general rate case cycles.”²³ Base TOU
9 Periods should be developed using forward-looking data, with the forecast year set at least three
10 years after the year the Base TOU Period will go into effect. Using TY 2024, SDG&E conducted
11 its LOLE analysis on both 2024 and 2027 data to determine whether to update its Base TOU
12 Periods.

13 Based on this analysis, SDG&E is proposing to update its existing standard TOU periods
14 to include additional super-off-peak period hours. SDG&E is proposing to update its standard
15 base TOU periods to: 1) better reflect cost-causation as shown in the marginal commodity cost
16 study in the revised prepared direct testimony of SDG&E witness Jeff DeTuri (Chapter 5); 2)
17 encourage customers to shift energy consumption to daytime hours when significant renewable
18 generation is available, thereby helping reduce GHG emissions; and 3) provide more
19 opportunities for customers to shift load into the Super Off-Peak period and manage their bills.
20 Figure APSP-2 below displays SDG&E’s proposed Base TOU periods.

²² See D.17-01-006, Appendix 1, Policy Guideline #5 at 1.

²³ *Id.*

1 **Figure APSP-2: SDG&E Proposed Base TOU Periods**

TOU Period	Weekday		Weekend	
	Summer	Winter	Summer	Winter
On-Peak	4 – 9 PM	4 – 9 PM	4 – 9 PM	4 – 9 PM
Off-Peak	All other hours	All other hours	All other hours	All other hours
Super Off-Peak	Midnight – 6 AM; 10 AM – 2 PM	Midnight – 6 AM; 10 AM – 2 PM	Midnight – 2 PM	Midnight – 2 PM

2 SDG&E believes the ~~addition-extension~~ of these four super off-peak ~~period~~ weekday
3 hours during the middle of the day year-round will provide more opportunities for residential
4 customers to shift their consumption to daytime hours when excess clean energy is typically
5 available. Many businesses are still operating on a work-from-home or hybrid basis, meaning
6 that individuals are home more often during the day and able to take advantage of these hours as
7 compared to pre-pandemic. Encouraging customers to shift their consumption to the daytime,
8 non-~~on~~-peak hours, will help benefit the system, customer bills, and ~~provide-encourage~~ GHG
9 emissions reduction.

10 Based on the LOLE analysis presented in the ~~revised~~ prepared direct testimony of
11 SDG&E witness Jeff DeTuri (Chapter 5), a change to SDG&E’s peak period is not warranted.
12 The current on-peak period is 4 PM – 9 PM, year-round, weekdays and weekends/holidays. As
13 shown in the ~~revised~~ prepared direct testimony of SDG&E witness Jeff DeTuri (Chapter 5), the
14 forecasted data does not support a change to the on-peak period. Additionally, SDG&E believes
15 that customers (especially residential customers) are still becoming familiar with and accustomed
16 to TOU rates and the 4 ~~PM~~ – 9 PM on-peak period. Mass Residential Default TOU concluded
17 in 2020 and included a massive statewide and service territory marketing and education
18 campaign. Changing the on-peak period prematurely when the data does not support a change
19 would incur unnecessary costs, confuse customers, and provide little benefit to the system.

1 **B. Customers Should Transition Immediately to New Standard TOU Periods**

2 SDG&E believes that this proposed change to its Standard Base TOU Periods, which
3 makes the current March/April TOU periods the year-round ~~the~~ standard, is more easily
4 understood than potential other changes to TOU periods, such as changes to the on-peak period.
5 The inclusion of additional super off-peak hours during the day, when residential customers may
6 be at home, or many non-residential customers have business hours, is likely a benefit to those
7 customers. Customers, especially residential customers working from home, will be able to shift
8 their electricity consumption to mid-day when solar generation is plentiful, ~~therefore thereby~~
9 helping to reduce emissions.

10 SDG&E is proposing no legacy period for customers on current standard TOU periods.²⁴
11 While the Commission granted legacy periods for certain BTM solar customers on SDG&E's
12 previous base TOU periods (pre-2017 TOU periods), the change experienced by those customers
13 was significantly more drastic (~~the~~ on-peak period ~~moving~~ moved from 11 AM – 6 PM to 4 PM
14 – 9 PM).²⁵ Here, the proposed change to TOU periods does not include a change in the on-peak
15 period, only the addition of four super off-peak period hours ~~during on weekdays from~~ May –
16 February ~~weekdays~~. Requiring a legacy TOU grace period for SDG&E's currently effective
17 TOU periods, which could benefit current BTM solar customer by allowing them to stay on
18 today's current effective TOU periods for a period of time after implementing the new TOU
19 periods, would require SDG&E to have implement two versions of legacy TOU periods

²⁴ Non-residential solar customers with legacy TOU periods are able to stay on their legacy TOU periods 10 years after interconnection (through December 31, 2027). See D.17-01-006, as modified by D.17-10-018, and D.17-08-030.

²⁵ See D.17-01-006 at 56-65 (describing legacy TOU periods for solar customers but specifying on pages 56-57 that customers investing in solar and other on-site distributed energy resources should be aware that going forward the plan is to regularly review and update TOU periods and this information should be taken into account when making investment decisions).

1 implemented for customers and bill customers on three different sets of TOU periods, and which
2 would serve to increase customer confusion, ME&O, and billing costs.

3 Additionally, for policy reasons, SDG&E does not believe that BTM solar customers
4 should receive special treatment and be allowed to stay on the current effective TOU periods
5 longer than non-solar customers. New residential NEM 2.0 customers in SDG&E's service
6 territory who completed an interconnection application before April 14, 2023, today enjoy
7 simple paybacks of approximately three years,²⁶ and receive NEM treatment for 20 years.²⁷ The
8 newly adopted Net Billing Tariff (NBT) is estimated to provide SDG&E solar customers simple
9 paybacks in less than six years, well below the targeted nine-year payback of the decision.²⁸

10 Additionally, because the NBT decision payback was calculated using a simple payback, it does
11 not take into account any rate increases that will occur in the future, which will increase NBT
12 customer bill savings.

13 In addition, SDG&E has significant excess solar generation during the middle of the day.
14 Today, nearly 2023% of SDG&E's residential customers are rooftop solar (net energy metering
15 or NEM or NBT) customers.^{29,30} NEM and NBT customers should be encouraged to consume or

²⁶ Simple payback refers to the number of years required to recover initial investment. *And see* E3 study comparing NEM successor proposals as submitted by the parties in CPUC Rulemaking 20-08-020 to replace the existing NEM tariff, NEM 2.0. Study Title: *Cost Effectiveness of NEM Successor Rate Proposals Under Rulemaking 20-08-020* (June 15, 2021) at 34 (, available at: <https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/demand-side-management/net-energy-metering/nem-revisit/net-billing-tariff> (under Party Proposals).

²⁷ D.22-12-056 at 191 (stating that D.16-01-044 “established a legacy period of 20 years from the customer’s interconnection as a reasonable period over which the customer should be eligible to continue taking service under NEM 2.0 tariff.”).

²⁸ D.22-12-056 at 79.

²⁹ ~246272,000 residential NEM solar PV projects per 2022-2023 estimates from California Distributed Generation Statistics, available at <https://www.californiadgstats.ca.gov/charts/>. SDG&E has approximately 265296,000 residential NEM customers as of December 30, 2022 August 31, 2023, and a total of approximately 1.3 million residential customers.

³⁰ Interconnected NBT customers are temporarily being billed on NEM 2.0 until SDG&E can implement the NBT in its billing system.

1 store their daytime generation onsite ~~during the day~~, not export it to the grid where it contributes
2 to curtailment of cheaper, utility-scale solar resources.³¹ A lower super off-peak price during the
3 day should incentivize NEM and NBT customers with paired batteries to store their self-
4 generation and consume it later in the evening. Therefore, it does not make sense to provide a
5 new legacy period to NEM or NBT customers on current standard TOU periods.

6 C. Customer Marketing, Education & Outreach for Standard TOU Period 7 Change

8 If SDG&E's request is approved, SDG&E will develop and deploy a robust marketing,
9 education, and outreach (ME&O) plan to inform its bundled business and residential customers
10 of the new opportunity to save on their energy bill and make better use of renewable energy
11 sources when they are more available to the power grid. Because ~~the additional~~ super off-peak
12 hours during weekdays are not a new concept to customers, SDG&E believes that marketing
13 activities can be efficiently and effectively integrated into existing rate education activities that
14 focus on when a customer uses energy and customer choice when it comes to pricing plan
15 options.

16 ME&O activities would include, but are not limited to, leveraging a multi-channel
17 strategy, including digital marketing, targeted email and/or direct mail, on-bill messaging,
18 community partner content packets, talking points and collateral for customer-facing employees
19 including Account Executives and Customer Care Center, social media, sdge.com and earned
20 media when possible. SDG&E believes there is an opportunity to promote these lower-priced
21 energy hours to customers who are not on a TOU plan or are on a TOU plan with only two

³¹ California ISO, Managing Oversupply, available at <http://www.caiso.com/informed/Pages/ManagingOversupply.aspx>; see e.g., California ISO, Fast Facts, Impacts of renewable energy on grid operations, available at <http://www.caiso.com/Documents/CurtailmentFastFacts.pdf>.

pricing periods as another pricing plan option for their consideration. Communications will consider the needs of specific customer segments, including low-income and in-language needs. SDG&E would exclude marketing to customers who take service with a Community Choice Aggregator in adherence with the applicable Code of Conduct.

VI. CURRENT TOU DIFFERENTIALS SHOULD BE MAINTAINED

SDG&E is proposing to maintain its current TOU differentials for all customer classes.³² As stated previously, Figure APSP-3 below shows the current TOU differentials for SDG&E’s default residential rate compared to the TOU differentials shown in SDG&E’s 2024 commodity cost study. As shown below, using SDG&E’s 2024 GRC Phase 2 Commodity Cost Study results in significantly more muted TOU differentials.

Figure APSP-3: SDG&E’s ~~June 1, 2022~~ January 1, 2023, Effective Base Commodity Rates vs. Base Commodity Rates Using the 2024 Commodity Cost Study

TOU-DR1	June 1, 2022	2024 Commodity Cost Study	TOU-DR1	January 1, 2023	2024 Commodity Cost Study
Base Commodity Rates	(€/kWh)	(€/kWh)	Base Commodity Rates	(€/kWh)	(€/kWh)
Summer			Summer		
On-Peak	42.2	26.7	On-Peak	57.0	26.7
Off-Peak	19.0	12.1	Off-Peak	25.6	12.1
Super Off-Peak	6.8	9.9	Super Off-Peak	9.2	9.9
Winter			Winter		
On-Peak	14.3	16.5	On-Peak	19.2	16.5
Off-Peak	8.0	12.4	Off-Peak	10.8	12.4
Super Off-Peak	6.2	10.5	Super Off-Peak	8.3	10.5
Summer Differentials:			Summer Differentials:		
On: Super Off-Peak	6.2	2.7	On: Super Off-Peak	6.2	2.7
On: Off-Peak	2.2	2.2	On: Off-Peak	2.2	2.2
Winter Differentials:			Winter Differentials:		
On: Super Off-Peak	2.3	1.6	On: Super Off-Peak	2.3	1.6
On: Off-Peak	1.8	1.3	On: Off-Peak	1.8	1.3

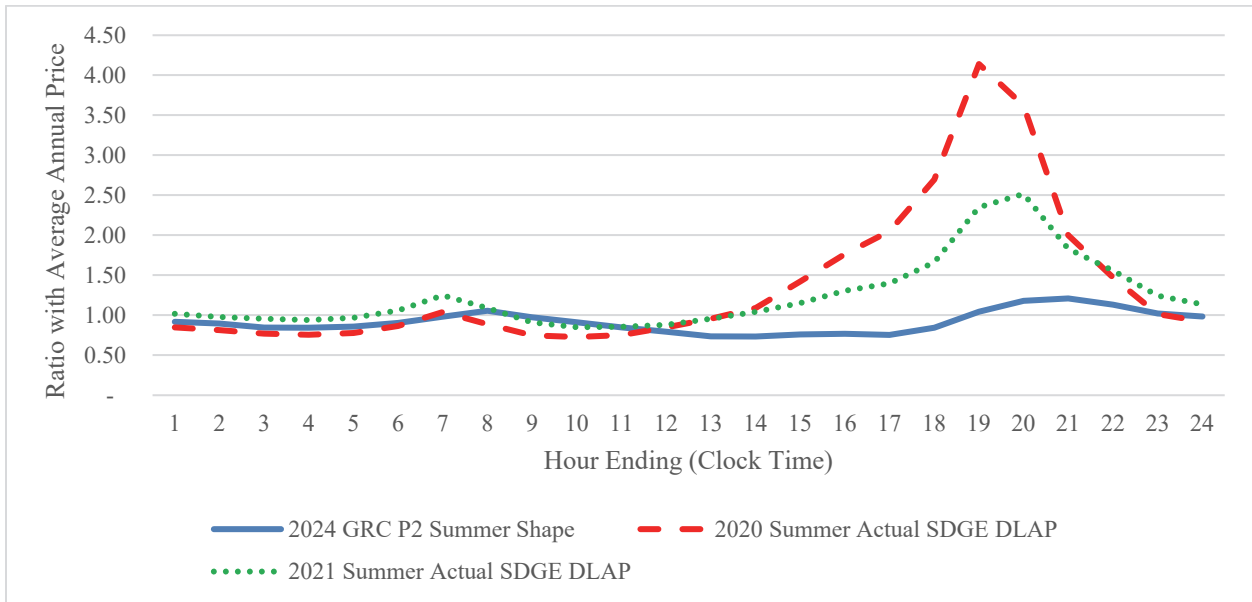
Because it is forecasted that there will be additional capacity resources added to SDG&E’s service territory by 2024, in accordance with the reliability procurement orders and

³² ~~As stated previously, SDG&E is not proposing any changes to residential rate design, which includes maintaining current TOU differentials.~~

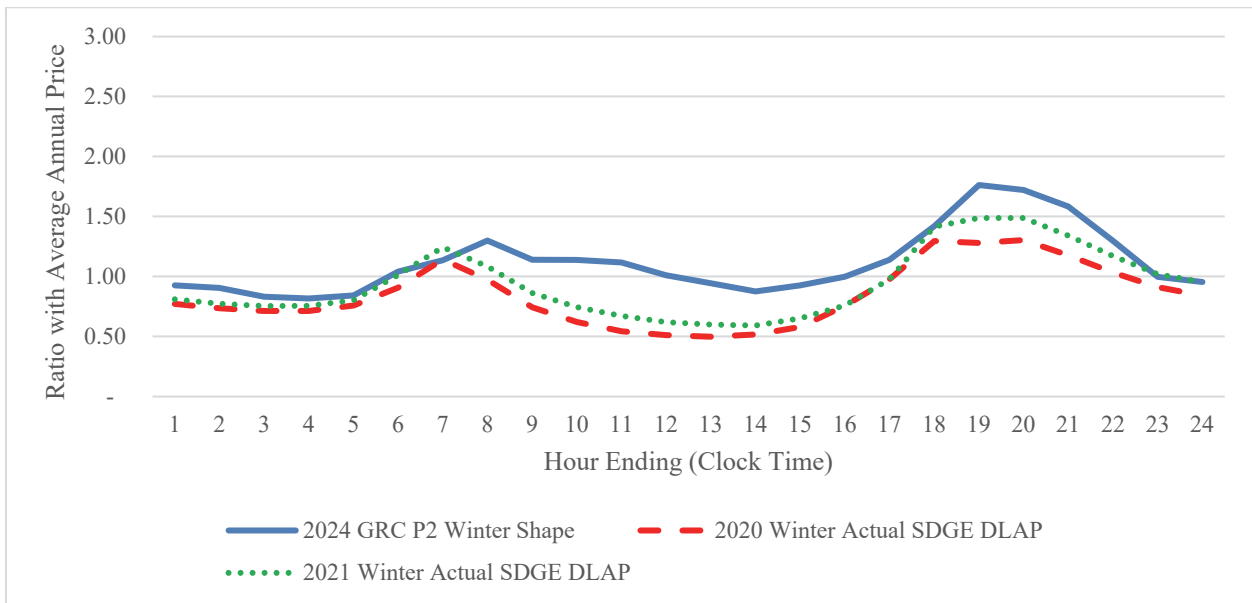
1 concerns,³³ theoretically, SDG&E would have enough capacity in its service territory and would
2 need less of a response from customers to shift load outside the on-peak period. This forecast is
3 consistent with the Integrated Resources Plan (IRP). Many of the resources forecasted to come
4 online are battery storage, meaning that they could provide capacity during the peak period,
5 when costs are highest. Using these forecasted assumptions results in significantly lower “cost-
6 based” TOU differentials. However, this is a drastic change from current price differentials
7 observed in the market. In 2020 and 2021, SDG&E observed extreme market price spikes in the
8 peak hours relative to the off and super-off-peak hours. Figures [APSP-4](#) and [APSP-5](#) below
9 show the average 2020 and 2021 summer and winter Default Load Aggregation Point (DLAP)
10 prices for SDG&E compared to the forecasted 2024 summer and winter shapes.

³³ See, D.19-11-016, D.21-06-035, D.21-12-015, and D.22-02-004.

1 **Figure APSP-4: Summer Weekday Average Hourly Shape**



2
3 **Figure APSP-5: Winter Weekday Average Hourly Shape**



4
5 This market price differential was again observed in the summer months of 2022. While
6 the IRP forecasts an increase in additional resources coming online in 2024 that could limit
7 future summer market price spikes, it is premature to make this change based on forecasts and
8 without observable market data supporting this hypothesis. Flattening TOU differentials,

1 especially in summer months, could have the unintended consequence of muting a necessary
2 price signal and discourage needed customer demand response during critical times of the day.
3 Given all of this information, SDG&E believes the best course of action is to continue using the
4 cost-based differentials that are currently in effect, rather than implement the more muted
5 differentials shown in SDG&E’s 2024 commodity cost study.

6 **VII. MEDIUM COMMERCIAL CUSTOMER CLASS PROPOSAL AND**
7 **APPLICABILITY**

8 **A. Proposal to Split Current M/L C&I Customer Class**

9 SDG&E is proposing to split the current M/L C&I customer class to create a new
10 customer class for “medium” commercial customers and a class for “large” commercial and
11 industrial customers. Currently, SDG&E has two commercial customer classes: the Small
12 Commercial customer class is generally for customers with maximum demands up to 20
13 kilowatts (kW), and the M/L C&I customer class is generally for customers with maximum
14 demands over 20 kW.³⁴

15 Pursuant to D.21-07-010, and as detailed in the revised prepared direct testimony
16 SDG&E witnesses Ray C. Utama, Erica Wissman, Hannah Campi, and Gwendolyn
17 Morien Evelyn Luna (Chapter 3), SDG&E was required to consider creating one or more new
18 customer classes for medium commercial customers. SDG&E studied whether it would be
19 appropriate to split its M/L C&I customer class and is proposing herein to split its current M/L
20 C&I class into two classes: one customer class for “medium” commercial customers with
21 maximum demands up to 200 kW, and one customer class for “large” commercial and industrial
22 customers with maximum demands exceeding 200 kW. Based on SDG&E’s analysis, the
23 differences in cost to serve customers with demands under 200 kW and demands over 200 kW is

³⁴ Specific eligibility requirements are detailed in SDG&E’s tariffs.

1 sufficiently different to justify dividing the customer class. Additionally, splitting the class at the
2 200 kW level leaves a sufficient number of customers in each class. The revised prepared direct
3 testimony of SDG&E witness Ray C. Utama (Chapter 2) and witness Hannah Campi (Chapter 3)
4 discuss in more detail the revenue allocation and rate design of the proposed Medium
5 Commercial customer class.

6 SDG&E anticipates once this proposal is approved it will develop an ME&O plan to
7 communicate and educate customers impacted by this change. SDG&E's implementation timing
8 is discussed in section XI.

9 **VIII. PROPOSAL TO UPDATE MEDICAL BASELINE DISCOUNT METHODOLOGY**

10 SDG&E offers a Medical Baseline program in compliance with statute and Commission
11 direction that provides eligible medical customers with a higher baseline allocation to cover the
12 additional energy needs required by their medical equipment.³⁵ Baseline allowance is a feature
13 of tiered residential rates, where a certain quantity of consumption each month is provided at a
14 lower price (*i.e.*, Tier 1 pricing), and all consumption beyond that quantity is provided at a higher
15 price (*i.e.*, Tier 2 pricing). Eligible medical baseline customers also receive an embedded rate
16 discount on their tiered prices.³⁶ However, SDG&E also offers non-tiered residential rates,
17 where all volumetric energy rates are priced the same, regardless of quantity of consumption.
18 Because these rates are non-tiered, there is no option to provide an additional amount of energy
19 at a lower price to medical baseline customers who would otherwise receive lower rates if they
20 chose a tiered rate.

21 For this reason, SDG&E proposes to update the medical baseline to a line-item discount
22 for eligible medical customers on residential tiered *and* non-tiered rate schedules to provide both

³⁵ Per California Public Utilities Code §739(c) and D.15-07-001.

³⁶ D.15-07-001 at 247-250.

1 sets of customers the same type of discount. In addition, SDG&E is proposing to update the
2 medical baseline discount percentage to better align with the discounts provided by the other
3 California Investor-Owned Utilities (IOUs). The revised prepared direct testimony of SDG&E
4 witnesses Ray C. Utama, Erica Wissman, Hannah Campi, and ~~Gwendolyn Morien~~Evelyn Luna
5 (Chapter 3) discusses SDG&E’s proposal to update the Medical Baseline discount methodology
6 in more detail.

7 **IX. PROPOSAL TO ASSESS CRITICAL PEAK PRICING (CPP) PERIODS LESS**
8 **FREQUENTLY**

9 Currently, SDG&E is required to file an annual Tier 2 AL that updates the CPP event
10 period based on a loss of load analysis.³⁷ SDG&E has filed this Tier 2 AL in compliance with
11 D.17-08-030 since 2018, and changed its CPP period once to align with its current on-peak
12 period.³⁸ Changing the CPP event period is a significant task: it requires development and
13 conducting of a marketing, education and outreach campaign to all customers. Additionally, it is
14 logical to align the CPP event period with the on-peak period. A CPP that differs from the on-
15 peak period is likely to send confusing and conflicting price signals to customers. Each change
16 would need to have a significant ME&O campaign. Therefore, SDG&E does not believe it will
17 change CPP periods outside of a base TOU period change. It makes sense for CPP periods to be
18 aligned with the currently effective on-peak period and for adjustments to CPP periods to
19 coincide with adjustments to TOU periods. Therefore, in the interest of customer understanding,
20 education, and the significance of a change in the CPP period, SDG&E is proposing to eliminate

³⁷ D.17-08-030, OP 32 at 92.

³⁸ AL 3667-E, approved and effective December 13, 2021, changed the 2 PM – 6PM CPP period adopted in D.17-08-030 to 4 PM – 9 PM per D.21-03-056, to align with SDG&E’s current on-peak period and the hours of greatest capacity need.

1 this annual compliance requirement and evaluate its CPP event period every GRC Phase 2
2 starting with the current GRC cycle.

3 **X. ADDITIONAL COMPLIANCE REQUIREMENTS**

4 SDG&E is required to provide other information as a part of this Application, including:

5 A) a Deadband Tolerance Assessment;³⁹ and B) NEM vs. Non-NEM Marginal Costs.⁴⁰

6 **A. Deadband Tolerance Assessment**

7 D.17-01-006 required SDG&E to conduct a deadband tolerance test for determining
8 when a change would trigger TOU period revisions more frequently than five-year intervals, and
9 provide Base TOU period analysis. As directed, SDG&E filed AL 3064-E on April 3, 2017,
10 proposing a two-part methodological test for the deadband tolerance rate. The CPUC issued
11 Resolution E-4948 on November 29, 2018, approving SDG&E's proposal in part, and SDG&E
12 filed supplemental AL 3064-E-A on December 17, 2018, to comply with the resolution.

13 SDG&E has included the results of the deadband tolerance assessment in this Application, as
14 discussed in the revised prepared direct testimony of SDG&E witness Jeff DeTuri (Chapter 5).

15 The results of the assessment support the current base on-peak and off-peak TOU periods, but as
16 discussed in Section V.A., indicate that prices are low during the mid-day hours. Therefore,
17 SDG&E is proposing to extend the current March/April weekday Super Off-Peak period of 10
18 AM – 2 PM throughout all months of the year.

³⁹ D.17-01-006, OP 1 at 77-78, and Resolution E-4951 (September 13, 2018).

⁴⁰ D.21-07-010, OPs 1 and 2 at 88, adopted the 2019 GRC Phase 2 settlement agreement.

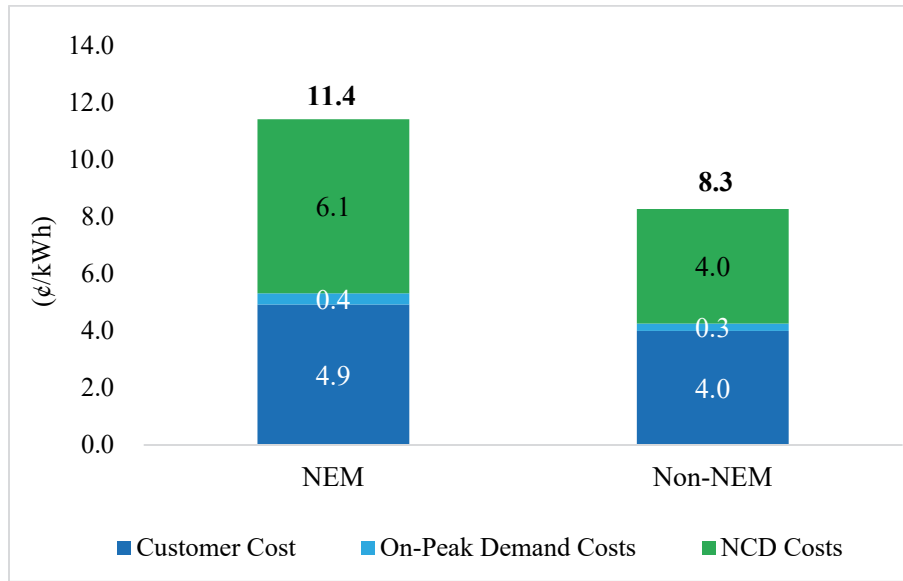
1 **B. NEM and Non-NEM Marginal Costs**

2 Pursuant to the SDG&E’s TY 2019 GRC Phase 2 Settlement Agreement, SDG&E was
3 required to evaluate distribution and commodity NEM and non-NEM marginal costs in this
4 application.⁴¹ These marginal costs are presented in the revised prepared direct testimony of
5 SDG&E witness William G. Saxe (Chapter 4) and witness Jeff DeTuri (Chapter 5). It is
6 important to examine the differences between NEM and non-NEM customers to determine if
7 there are significant differences in the cost to serve these customers. If the cost to serve certain
8 customer groups is higher, it may serve as justification to require those customers to pay higher
9 rates. Additionally, this analysis serves to inform the Commission whether there are cross-
10 subsidies embedded within the current rate construct. The analysis is limited to distribution and
11 commodity costs, and therefore, limited to those rate components.

12 As shown in the revised prepared direct testimony of SDG&E witness William G. Saxe
13 (Chapter 6), the distribution cost to serve NEM customers is generally higher than non-NEM
14 customers. Figure APSP-6 below shows the illustrative residential marginal distribution cost
15 rates to serve NEM and non-NEM customers.

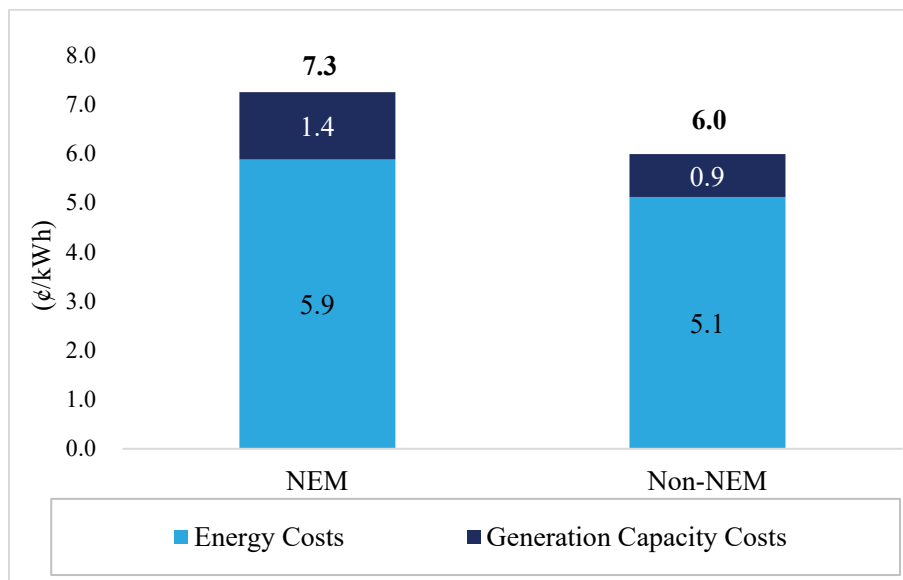
⁴¹ D.21-07-010, Appendix B, Section 2.2.6 at 13.

1 **Figure APSP-6: Residential Non-NEM vs. NEM Distribution Cost Comparison (¢/kWh)**



2
3 Commodity costs for NEM customers are also shown to be generally higher by customer
4 class in the commodity cost analysis as shown in the revised prepared direct testimony of
5 SDG&E witness Jeff DeTuri (Chapter 5). Figure APSP-7 below shows the illustrative residential
6 marginal commodity cost to serve NEM and non-NEM customers.

7 **Figure APSP-7: Residential NEM vs. Non-NEM Commodity Cost Comparison (¢/kWh)**



1 **XI. IMPLEMENTATION TIMING**

2 Primarily due to the significant work needed to design, build, test, and deploy SDG&E's
3 proposal to split the current M/L C&I class into two distinct Medium Commercial and Large
4 C&I customer classes, as well as the implementation of new TOU periods, including the
5 necessary marketing related to the proposed TOU period change and new customer class,
6 SDG&E anticipates that it will be able to implement the changes proposed in its Application 180
7 days after the adoption of a final decision.

8 This concludes my prepared direct testimony.

1 **XII. WITNESS QUALIFICATIONS**

2 My name is ~~Adam Pierce~~Samantha Pate, and my business address is 8330 Century Park
3 Court, San Diego, California 92123. I am the Director of Customer Pricing at SDG&E. My
4 primary responsibilities include managing: the development of rate design in various regulatory
5 filings, rate strategy, determination of revenue allocation, and load forecasting and analysis.

6 I received a Bachelor of Science degree in ~~Business Administration with emphases on~~
7 ~~both Economics and Finance from Saint Louis University~~Accountancy from University of San
8 Diego in 2007. ~~Upon receiving my bachelor's degree, I was employed at financial services firms~~
9 ~~focusing on debt, equity and mergers and acquisitions transactions for energy and power~~
10 ~~companies.~~I joined ~~Sempra Energy SDG&E~~ in ~~2012~~2006 and have held various positions of
11 increasing responsibility at the Sempra family of companies including: ~~Sempra Energy's~~ Sempra
12 Energy's Investor Relations Manager, SDG&E's Senior Regulatory Policy Manager and
13 SDG&E's Director of Strategic Planning.

14 I have not previously testified before the California Public Utilities Commission.