

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

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Application: 23-01-XXX

Exhibit No.: \_\_\_\_\_

**CHAPTER 1**

**PREPARED DIRECT TESTIMONY OF**

**ADAM PIERCE**

**ON BEHALF OF SAN DIEGO GAS & ELECTRIC COMPANY**

**BEFORE THE PUBLIC UTILITIES COMMISSION**

**OF THE STATE OF CALIFORNIA**

**JANUARY 17, 2023**



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**PREPARED DIRECT TESTIMONY OF  
ADAM PIERCE  
(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.

The purpose of my 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 Medical Baseline Discount Methodology
- 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,<sup>1</sup>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);
- 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;
- 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;
- Update the Medical Baseline discount to a line-item discount for both tiered and non-tiered rates; and
- Propose miscellaneous updates to rate design and tariffs that will provide greater clarification to SDG&E customers.

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<sup>1</sup> 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           Because significant changes to residential rate design are being concurrently addressed in  
2 the Rulemaking to Advance Demand Flexibility Through Electric Rates (R.22-07-005) (Demand  
3 Flexibility Rulemaking), SDG&E is proposing limited changes to residential rate design in this  
4 proceeding. SDG&E believes that consideration of residential rate design proposals within its  
5 GRC Phase 2 would unnecessarily increase the burden on SDG&E, the Commission, and other  
6 intervenors, and could result in conflicting decisions from the Commission.

7           Additionally, SDG&E is proposing to maintain the TOU differentials in its current  
8 effective commodity rates. SDG&E's marginal commodity cost study, as shown in the prepared  
9 direct testimony of SDG&E witness Jeff DeTuri (Chapter 5), forecasts that the TOU differentials  
10 from a purely forecasted, cost-based perspective, for 2024 and 2027, will be significantly lower  
11 than the current TOU differentials, particularly in the summer months. However, as discussed  
12 below, SDG&E believes that it is premature to decrease TOU differentials (*e.g.*, the difference  
13 between the on-peak period and super off-peak period price) based solely on forecasts at this  
14 time.

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

20           The Application is further supported by the following testimony:

- 21           • Chapter 2 (Ray C. Utama): Presents SDG&E's updated electric revenue  
22 allocation and proposals for changes to revenue allocations, as well as revenue  
23 allocation compliance requirements.

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<sup>2</sup> D.17-08-030, Ordering Paragraph (OP) 32 at 92.

- 1 • Chapter 3 (Ray C. Utama, Erica Wissman, Hannah Campi, and Gwendolyn  
2 Morien): Presents SDG&E’s proposals to update rates to reflect proposed TOU  
3 periods, revenue allocations, electric rate design, and illustrative bill impacts to  
4 support those proposals, including:
- 5 ○ Update to the current Residential Medical Baseline methodology and  
6 expansion of a Medical Baseline Program Discount to non-tiered  
7 residential rates;
- 8 ○ Movement toward more cost-based rates for non-residential customers,  
9 including increases to existing monthly service fees; and
- 10 ○ Division of the current M/L C&I customer class into a Medium  
11 Commercial customer class and a Large C&I customer class and  
12 illustrative rates.
- 13 • Chapter 4 (William G. Saxe): Presents SDG&E’s proposed distribution marginal  
14 costs (both customer costs and demand costs) and the cost basis for distribution  
15 revenue allocation.
- 16 • Chapter 5 (Jeff DeTuri): Presents SDG&E’s commodity marginal cost, including  
17 both energy costs and generation capacity costs, the cost-based commodity and  
18 Competition Transition Charge (CTC) revenue allocations, and data to support  
19 SDG&E’s current TOU periods, as well as the deadband tolerance analysis  
20 required in each GRC Phase 2 Application.<sup>3</sup>
- 21 • Chapter 6 (William G. Saxe): Presents SDG&E’s Street Lighting cost studies and  
22 associated rate design proposals.
- 23 • Chapter 7 (Jeff Nightingale): Describes the process for converting Schedule OL-  
24 1 lamps to Light Emitting Diode (LED) technology, including the costs for  
25 completing these conversions.
- 26 • Chapter 8 (Evelyn Luna): Proposes miscellaneous tariff and rate design changes.
- 27 • Chapter 9 (Rachelle Baez): Presents Affordability Metrics as required by D.22-  
28 08-023.

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<sup>3</sup> 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 **III. SDG&E’S POLICY OBJECTIVES AND RATE DESIGN PROPOSALS SEEK TO**  
2 **BALANCE THE COMMISSION’S RATE DESIGN POLICY OBJECTIVES**

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

- 5 • Recognized leader for its wildfire safety and mitigation efforts;
- 6 • Procuring approximately fifty-five percent of its power from renewable  
7 resources;<sup>4</sup>
- 8 • Integrating over 1,800 megawatts (MW) of customer-sited solar from over  
9 250,000 customers;<sup>5</sup>
- 10 • Serving ~93,500 plug-in electric vehicles within its service territory, making clean  
11 driving more accessible with several programs available to customers including  
12 the Power-Your-Drive program, and expanding access to electric vehicle charging  
13 at businesses, multi-family communities, and disadvantaged neighborhoods; and
- 14 • Receiving the 2021 National Reliability Award, the 2022 Outstanding Grid  
15 Reliability Award, as well as receiving the “Best in the West” award for electric  
16 reliability for 17 straight years.<sup>6</sup>

17 Despite significant progress in these areas, rate design has not evolved alongside a  
18 rapidly changing energy marketplace, and this disconnect represents a potential barrier for  
19 customer technology adoption and customer choice. SDG&E commends the Commission for  
20 addressing demand flexibility and revisions to residential rate design, as well as considering  
21 revised rate design principles (RDPs) and demand flexibility rates more broadly in the Demand  
22 Flexibility Rulemaking.<sup>7</sup> However, acknowledging that these two proceedings will be ongoing  
23 concurrently, SDG&E’s proposals in this Application are intended to avoid conflicting decisions  
24 and duplicative work that would occur if residential rate design was considered in this

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<sup>4</sup> R.18-07-003, SDG&E’s Draft 2022 Renewable Portfolio Standard Procurement Plan – Public Version (July 1, 2022) at 3 (SDG&E’s procured 55% of its power from renewable resources in 2021).

<sup>5</sup> 2022 estimates from California Distributed Generation Statistics, available at <https://www.californiadgstats.ca.gov/charts/>.

<sup>6</sup> PA Consulting ReliabilityOne™ Awards.

<sup>7</sup> See generally R.22-07-005.

proceeding. To help ensure the continued pursuit of the state’s clean energy goals in a sustainable manner, it is critical to move toward rates that reflect accurate prices to help incentivize customer behavior, and, if necessary for policy reasons, provide incentives or subsidies that are direct and transparent.

Importantly, SDG&E continues to support the RDPs adopted by the Commission in Order Instituting Rulemaking 12-06-013. Table AP-2 below presents the RDPs in four categories (consistent with D.15-07-001): (1) cost of service; (2) affordable electricity; (3) conservation; and (4) customer acceptance.<sup>8</sup> The Commission is currently considering changes to modernize the current RDPs in R.22-07-005; however, given that no changes have been adopted at the time of this Application, SDG&E’s proposals balance the current rate design principles.

**Figure AP-1: Rate Design Principles<sup>9</sup>**

Cost Of Service RDP	Affordable Electricity RDP	Conservation RDP	Customer Acceptance RDP
(2) Rates should be based on marginal cost; (3) Rates should be based on cost-causation principles; (7) Rates should generally avoid cross-subsidies, unless the cross-subsidies appropriately support explicit state policy goals; (8) Incentives should be explicit and transparent; (9) Rates should encourage economically efficient decision-making.	(1) Low-income and medical baseline customers should have access to enough electricity to ensure basic needs (such as health and comfort) are met at an affordable cost.	(4) Rates should encourage conservation and energy efficiency; (5) Rates should encourage reduction of both coincident and non-coincident peak demand.	(6) Rates should be stable and understandable and provide customer choice; (10) Transitions to new rate structures should emphasize customer education and outreach that enhances customer understanding and acceptance of new rates, and minimizes and appropriately considers the bill impacts associated with such transitions.

<sup>8</sup> D.15-07-001 at 264.

<sup>9</sup> Although these principles were adopted in a residential rate design proceeding, the Commission recently stated when closing R.13-11-007 and opening R.18-12-006 that “they are also applicable and should be followed for designing new commercial rates.” R.18-12-006, Order Instituting Rulemaking to Continue the Development of Rates and Infrastructure for Vehicle Electrification (December 13, 2018) at 17, n.23.



1           SDG&E continues to advocate for the movement towards more cost-based rates as  
2 outlined by the Cost-of-Service RDPs in Figure AP-1 above. In addition, SDG&E recognizes  
3 the importance of ensuring balance of all the Commission’s RDPs. SDG&E in this Application  
4 is seeking to continue to move forward with more cost-based rates with the rate design proposal,  
5 discussed in the prepared direct testimony of SDG&E witnesses Ray C. Utama, Erica Wissman,  
6 Hannah Campi, and Gwendolyn Morien (Chapter 3) to increase certain existing Monthly Service  
7 Fees (MSF) of the Small Commercial, proposed Medium Commercial, Large C&I, and  
8 Agricultural customer classes for the years 2024-2027. SDG&E’s proposals to increase current  
9 MSFs result in offsetting decreases to other rate components, helping reduce bill volatility for  
10 customers, and rates more closely based on marginal cost (RDP 2) and cost-causation principles  
11 (RDP 3). In addition, SDG&E’s proposal to continue use of the revenue allocation SAPC  
12 methodology for certain rate components is intended to provide customers with greater rate  
13 stability (RDP 6). Further, SDG&E’s proposal to divide the current M/L C&I class into a  
14 Medium Commercial customer class and Large C&I customer class will provide “Medium” and  
15 “Large” commercial customers with rates more closely based on their cost of service (RDP 3).

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

17           California is moving toward electrification of homes and buildings, a necessary step to  
18 reduce harmful greenhouse gases (GHGs) and other emissions to help meet the state’s collective  
19 climate goals. However, the current residential rate design structure is misaligned with the  
20 state’s goals, as nearly all costs are recovered in volumetric energy rates. In order to incentivize  
21 broad electrification from all customers, including non-residential customers, it is important to  
22 reduce volumetric rates and SDG&E is proposing to do this by recovering more costs in a  
23 monthly fixed rate component.

1 A scoping memo and ruling was recently issued in the Demand Flexibility Rulemaking,  
2 where the Commission will decide the issue of income-based fixed charges for default, and  
3 potentially all, residential rate schedules in accordance with Assembly Bill 205.<sup>10</sup> Two scoping  
4 items in Track A, which will address the income-based fixed charge, ask (1) whether the  
5 Commission should “establish an income-graduated fixed charge for *all* residential rates or only  
6 certain residential rates;” and (2) “[h]ow the fixed charge should vary between default residential  
7 rates and non-default residential rates[.]”<sup>11</sup> Additionally, the recent Commission decision  
8 adopting a successor to the current Net Energy Metering (NEM) 2.0 Tariff stated that the  
9 Commission considers the Demand Flexibility Rulemaking to be “a more appropriate venue to  
10 consider the issue of an income-graduated fixed charge applicable to all customers, which will  
11 include NEM 1.0 and NEM 2.0 customers.”<sup>12</sup> As stated by SDG&E early in the Demand  
12 Flexibility Rulemaking proceeding, SDG&E is hopeful that the Commission will establish an  
13 income-based fixed charge for all residential rates so as to prevent certain customers from rate  
14 arbitrage.<sup>13</sup>

15 Accordingly, in light of the ongoing parallel work in the Demand Flexibility Rulemaking,  
16 SDG&E is proposing limited changes to Residential customer class rate design in this  
17 Application. In order to avoid conflicting proposals and workstreams, SDG&E plans to propose  
18 other changes to residential rate design in R.22-07-005 as they will likely be impacted by the  
19 changes in that proceeding. In this Application, SDG&E is proposing an update to TOU periods  
20 for all customer classes, including residential, and an update to the Medical Baseline Program  
21 discount methodology and an expansion of the Medical Baseline Program Discount to non-tiered

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<sup>10</sup> R.22-07-005, Assigned Commissioner’s Phase 1 Scoping Memo and Ruling (November 2, 2022) at 2.

<sup>11</sup> *Id.*, at 3, Track A items 1.a and 1.f (emphasis added).

<sup>12</sup> D.22-12-056 at 193-194.

<sup>13</sup> R.22-07-005, Post-Prehearing Conference Statement of SDG&E (September 27, 2022) at 4-5.

1 rates, as SDG&E does not anticipate these issues will be addressed in or otherwise impacted by  
2 the Demand Flexibility Rulemaking.

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

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

16 Strong price signals are one tool to incentivize customers to regularly shift their usage  
17 outside the peak period and support state policy objectives of reducing GHGs and increasing grid  
18 reliability. The Commission recently affirmed this policy in D.22-12-056, stating “[h]ighly  
19 differentiated time-of-use rates are closer to the energy prices required to run the grid” and  
20 “[h]ighly differentiated time-of-use rates encourage electrification and help California reach its  
21 greenhouse gas emissions reduction goals.”<sup>14</sup> Accordingly, SDG&E is proposing to maintain the  
22 current TOU differentials, as approved in its last GRC Phase 2, rather than update them based on

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<sup>14</sup> D.22-12-056, Findings of Fact 112 and 114 at 217-218.

1 the marginal commodity cost study presented in the prepared direct testimony of SDG&E  
2 witness Jeff DeTuri (Chapter 5).

#### 3 **IV. REVENUE ALLOCATIONS**

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

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

20 The only exception to SDG&E's proposal to maintain current treatment is SDG&E's  
21 proposal to update the revenue allocation factors for the Energy Efficiency (EE) PPP  
22 subcomponent. EE allocations are based on forecasted EE spending by customer class, as

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<sup>15</sup> See, e.g., D.22-12-042 approving SDG&E's ERRA Forecast Application.

1 approved in D.05-09-043, with the current allocations based on 2019 forecasted program  
2 budget.<sup>16</sup> Consistent with past GRC Phase 2 applications, SDG&E is proposing to update EE  
3 revenue allocation factors with the most recent forecasted EE program budget year 2022.  
4 Revenue allocation proposals are discussed in more detail in the prepared direct testimony of  
5 SDG&E witness Ray C. Utama (Chapter 2).

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

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

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<sup>16</sup> D.21-07-010 at 22.

<sup>17</sup> D.17-01-006, Appendix 1, Policy Guideline #6 at 2.

<sup>18</sup> The Deadband Tolerance methodology was approved in AL 3064-E/A. *See e.g.*, n.4, *supra*.

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

2           The Commission has adopted general principles in respect to developing and  
3 implementing changes in Base TOU periods.<sup>19</sup> For instance, Policy Guideline #5 of D.17-01-  
4 006, Appendix 1 states that “Base TOU periods should continue for a minimum of five years  
5 (unless [there are] material changes ... [that warrant a change], and each IOU should propose  
6 new Base TOU periods, if warranted, at least every two general rate case cycles.”<sup>20</sup> Base TOU  
7 Periods should be developed using forward-looking data, with the forecast year set at least three  
8 years after the year the Base TOU Period will go into effect. Using TY 2024, SDG&E conducted  
9 its LOLE analysis on both 2024 and 2027 data to determine whether to update its Base TOU  
10 Periods.

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

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<sup>19</sup> See D.17-01-006, Appendix 1, Policy Guideline #5 at 1.

<sup>20</sup> *Id.*

**Figure AP-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

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

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

1           **B.       Customer 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 standard, is more easily understood  
4 than potential other changes to TOU periods, such as changes to the on-peak period. The  
5 inclusion of additional super off-peak hours during the day, when residential customers may be  
6 at home, or many non-residential customers have business hours, is a benefit to those customers.  
7 Customers, especially residential customers working from home, will be able to shift their  
8 electricity consumption to mid-day when solar generation is plentiful, therefore helping to reduce  
9 emissions.

10           SDG&E is proposing no legacy period for customers on current standard TOU periods.<sup>21</sup>  
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 (on-peak period moving from 11 AM – 6 PM to 4 PM – 9 PM).<sup>22</sup>  
14 Here, the proposed change to TOU periods does not include a change in the on-peak period, only  
15 the addition of four super off-peak period hours during May – February weekdays. Requiring a  
16 legacy TOU grace period for SDG&E's currently effective TOU periods, which could benefit  
17 current BTM solar customer by allowing them to stay on today's current effective TOU periods  
18 for a period of time after implementing the new TOU periods, would require SDG&E to

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<sup>21</sup> 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.

<sup>22</sup> *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 implement two versions of legacy TOU periods for customers and would serve to increase  
2 customer confusion.

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 today enjoy simple paybacks of approximately three years,<sup>23</sup> and receive NEM  
7 treatment for 20 years.<sup>24</sup> The newly adopted Net Billing Tariff is estimated to provide SDG&E  
8 solar customers simple paybacks in less than six years, well below the targeted nine-year  
9 payback of the decision.<sup>25</sup>

10           In addition, SDG&E has significant excess solar generation during the middle of the day.  
11 Today, nearly 20% of SDG&E’s residential customers are rooftop solar (net energy metering or  
12 NEM) customers.<sup>26</sup> NEM customers should be encouraged to consume or store their generation  
13 onsite during the day, not export it to the grid where it contributes to curtailment of cheaper,  
14 utility-scale solar resources.<sup>27</sup> Therefore, it does not make sense to provide a new legacy period  
15 to NEM customers on current standard TOU periods.

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<sup>23</sup> 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).

<sup>24</sup> 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.”).

<sup>25</sup> D.22-12-056 at 79.

<sup>26</sup> ~246,000 residential NEM solar PV projects per 2022 estimates from California Distributed Generation Statistics, available at <https://www.californiadgstats.ca.gov/charts/>. SDG&E has approximately 265,000 residential NEM customers as of December 30, 2022, and a total of approximately 1.3 million residential customers.

<sup>27</sup> California ISO, Managing Oversupply, available at <http://www.caiso.com/informed/Pages/ManagingOversupply.aspx>; *see e.g.*, California ISO, Fast Facts,

1           **C.     Customer Marketing, Education & Outreach for Standard TOU Period**  
2           **Change**

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

10           ME&O activities would include, but are not limited to, leveraging a multi-channel strategy,  
11 including digital marketing, targeted email and/or direct mail, on-bill messaging, community partner  
12 content packets, talking points and collateral for customer-facing employees including Account  
13 Executives and Customer Care Center, social media, sdge.com and earned media when possible. SDG&E  
14 believes there is an opportunity to promote these lower-priced energy hours to customers who are not on a  
15 TOU plan or are on a TOU plan with only two pricing periods as another pricing plan option for their  
16 consideration. Communications will consider the needs of specific customer segments, including low-  
17 income and in-language needs. SDG&E would exclude marketing to customers who take service with a  
18 Community Choice Aggregator in adherence with the applicable Code of Conduct.

19           **VI.     CURRENT TOU DIFFERENTIALS SHOULD BE MAINTAINED**

20           SDG&E is proposing to maintain its current TOU differentials for all customer classes.<sup>28</sup>  
21 As stated previously, Figure AP-3 below shows the current TOU differentials for SDG&E’s  
22 default residential rate compared to the TOU differentials shown in SDG&E’s 2024 commodity

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Impacts of renewable energy on grid operations, available at  
<http://www.caiso.com/Documents/CurtailmentFastFacts.pdf>.

<sup>28</sup> As stated previously, SDG&E is not proposing any changes to residential rate design, which includes maintaining current TOU differentials.

1 cost study. As shown below, using SDG&E’s 2024 GRC Phase 2 Commodity Cost Study results  
 2 in significantly more muted TOU differentials.

3 **Figure AP-3: SDG&E’s June 1, 2022, Effective Base Commodity Rates vs. Base**  
 4 **Commodity Rates Using the 2024 Commodity Cost Study**

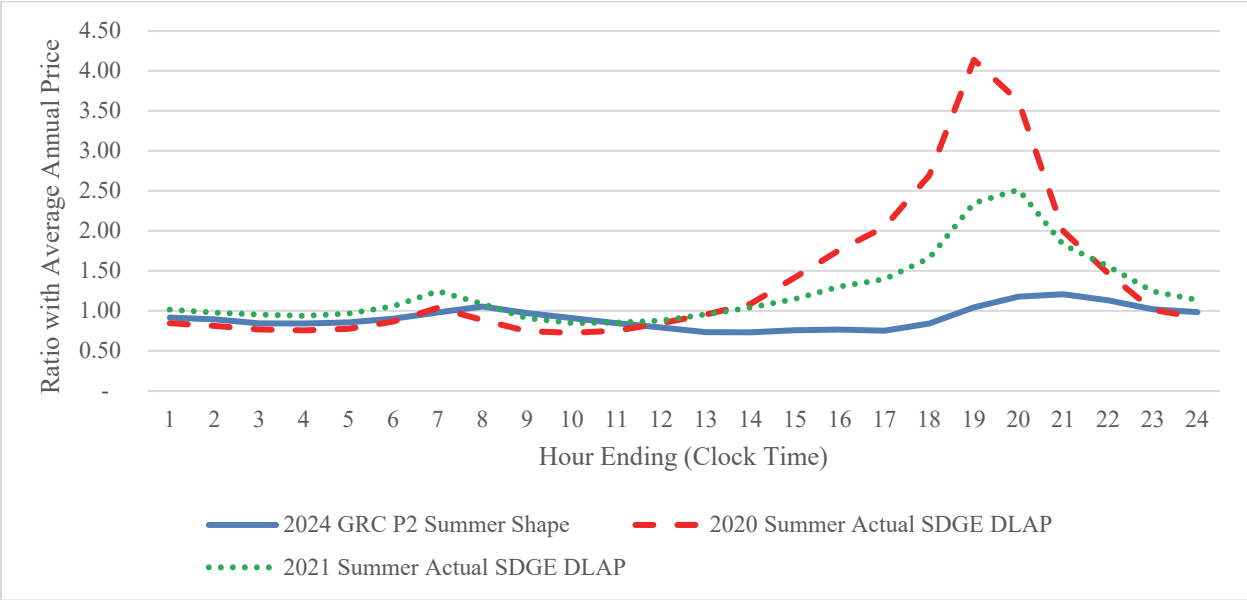
TOU-DR1	June 1, 2022	2024 Commodity Cost Study
Base Commodity Rates	(¢/kWh)	(¢/kWh)
<b>Summer</b>		
On-Peak	42.2	26.7
Off-Peak	19.0	12.1
Super Off-Peak	6.8	9.9
<b>Winter</b>		
On-Peak	14.3	16.5
Off-Peak	8.0	12.4
Super Off-Peak	6.2	10.5
<b>Summer Differentials:</b>		
On: Super Off-Peak	6.2	2.7
On: Off-Peak	2.2	2.2
<b>Winter Differentials:</b>		
On: Super Off-Peak	2.3	1.6
On: Off-Peak	1.8	1.3

5  
 6 Because it is forecasted that there will be additional capacity resources added to  
 7 SDG&E’s service territory by 2024, in accordance with the reliability procurement orders and  
 8 concerns,<sup>29</sup> theoretically, SDG&E would have enough capacity in its service territory and would  
 9 need less of a response from customers to shift load outside the on-peak period. This forecast is  
 10 consistent with the Integrated Resources Plan (IRP). Many of the resources forecasted to come  
 11 online are battery storage, meaning that they could provide capacity during the peak period,  
 12 when costs are highest. Using these forecasted assumptions results in significantly lower “cost-  
 13 based” TOU differentials. However, this is a drastic change from current price differentials  
 14 observed in the market. In 2020 and 2021, SDG&E observed extreme market price spikes in the

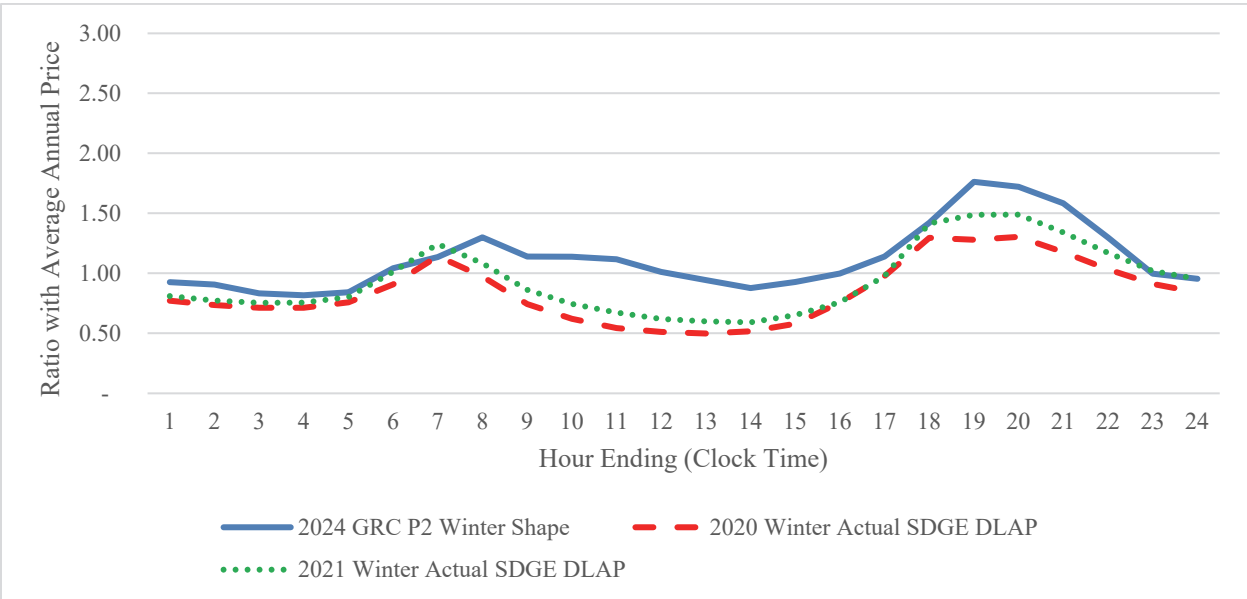
<sup>29</sup> See, D.19-11-016, D.21-06-035, D.21-12-015, and D.22-02-004.

1 peak hours relative to the off and super-off-peak hours. Figures AP-4 and AP-5 below show the  
 2 average 2020 and 2021 summer and winter Default Load Aggregation Point (DLAP) prices for  
 3 SDG&E compared to the forecasted 2024 summer and winter shapes.

4 **Figure AP-4: Summer Weekday Average Hourly Shape**



6 **Figure AP-5: Winter Weekday Average Hourly Shape**



7

1 This market price differential was again observed in the summer months of 2022. While  
2 the IRP forecasts an increase in additional resources coming online in 2024 that could limit  
3 future summer market price spikes, it is premature to make this change based on forecasts and  
4 without observable market data supporting this hypothesis. Flattening TOU differentials,  
5 especially in summer months, could have the unintended consequence of muting a necessary  
6 price signal and discourage needed customer demand response during critical times of the day.  
7 Given all of this information, SDG&E believes the best course of action is to continue using the  
8 cost-based differentials that are currently in effect, rather than implement the more muted  
9 differentials shown in SDG&E's 2024 commodity cost study.

## 10 **VII. MEDIUM COMMERCIAL CUSTOMER CLASS PROPOSAL AND** 11 **APPLICABILITY**

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

13 SDG&E is proposing to split the current M/L C&I customer class to create a new  
14 customer class for "medium" commercial customers and a class for "large" commercial and  
15 industrial customers. Currently, SDG&E has two commercial customer classes: the Small  
16 Commercial customer class is generally for customers with maximum demands up to 20  
17 kilowatts (kW), and the M/L C&I customer class is generally for customers with maximum  
18 demands over 20 kW.<sup>30</sup>

19 Pursuant to D.21-07-010, and as detailed in the prepared direct testimony SDG&E  
20 witnesses Ray C. Utama, Erica Wissman, Hannah Campi, and Gwendolyn Morien (Chapter 3),  
21 SDG&E was required to consider creating one or more new customer classes for medium  
22 commercial customers. SDG&E studied whether it would be appropriate to split its M/L C&I  
23 customer class and is proposing herein to split its current M/L C&I class into two classes: one

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<sup>30</sup> Specific eligibility requirements are detailed in SDG&E's tariffs.

1 customer class for “medium” commercial customers with maximum demands up to 200 kW, and  
2 one customer class for “large” commercial and industrial customers with maximum demands  
3 exceeding 200 kW. Based on SDG&E’s analysis, the differences in cost to serve customers with  
4 demands under 200 kW and demands over 200 kW is sufficiently different to justify dividing the  
5 customer class. Additionally, splitting the class at the 200 kW level leaves a sufficient number  
6 of customers in each class. The prepared direct testimony of SDG&E witness Ray C. Utama  
7 (Chapter 2) and witness Hannah Campi (Chapter 3) discuss in more detail the revenue allocation  
8 and rate design of the proposed Medium Commercial customer class.

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

## 12 **VIII. PROPOSAL TO UPDATE MEDICAL BASELINE DISCOUNT METHODOLOGY**

13 SDG&E offers a Medical Baseline program in compliance with statute and Commission  
14 direction that provides eligible medical customers with a higher baseline allocation to cover the  
15 additional energy needs required by their medical equipment.<sup>31</sup> Baseline allowance is a feature  
16 of tiered residential rates, where a certain quantity of consumption each month is provided at a  
17 lower price (*i.e.*, Tier 1 pricing), and all consumption beyond that quantity is provided at a higher  
18 price (*i.e.*, Tier 2 pricing). Eligible medical baseline customers also receive an embedded rate  
19 discount on their tiered prices.<sup>32</sup> However, SDG&E also offers non-tiered residential rates,  
20 where all volumetric energy rates are priced the same, regardless of quantity of consumption.  
21 Because these rates are non-tiered, there is no option to provide an additional amount of energy

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<sup>31</sup> Per California Public Utilities Code §739(c) and D.15-07-001.

<sup>32</sup> D.15-07-001 at 247-250.

1 at a lower price to medical baseline customers who would otherwise receive lower rates if they  
2 chose a tiered rate.

3 For this reason, SDG&E proposes to update the medical baseline to a line-item discount  
4 for eligible medical customers on residential tiered *and* non-tiered rate schedules to provide both  
5 sets of customers the same type of discount. In addition, SDG&E is proposing to update the  
6 medical baseline discount percentage to better align with the discounts provided by the other  
7 California Investor-Owned Utilities (IOUs). The prepared direct testimony of SDG&E witnesses  
8 Ray C. Utama, Erica Wissman, Hannah Campi, and Gwendolyn Morien (Chapter 3) discusses  
9 SDG&E’s proposal to update the Medical Baseline discount methodology in more detail.

10 **IX. PROPOSAL TO ASSESS CRITICAL PEAK PRICING (CPP) PERIODS LESS**  
11 **FREQUENTLY**

12 Currently, SDG&E is required to file an annual Tier 2 AL that updates the CPP event  
13 period based on a loss of load analysis.<sup>33</sup> SDG&E has filed this Tier 2 AL in compliance with  
14 D.17-08-030 since 2018, and changed its CPP period once to align with its current on-peak  
15 period.<sup>34</sup> Changing the CPP event period is a significant task: it requires development and  
16 conducting of a marketing, education and outreach campaign to all customers. Additionally, it is  
17 logical to align the CPP event period with the on-peak period. A CPP that differs from the on-  
18 peak period is likely to send confusing and conflicting price signals to customers. Each change  
19 would need to have a significant ME&O campaign. Therefore, SDG&E does not believe it will  
20 change CPP periods outside of a base TOU period change. It makes sense for CPP periods to be  
21 aligned with the currently effective on-peak period and for adjustments to CPP periods to

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<sup>33</sup> D.17-08-030, OP 32 at 92.

<sup>34</sup> 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 coincide with adjustments to TOU periods. Therefore, in the interest of customer understanding,  
2 education, and the significance of a change in the CPP period, SDG&E is proposing to eliminate  
3 this annual compliance requirement and evaluate its CPP event period every GRC Phase 2  
4 starting with the current GRC cycle.

## 5 **X. ADDITIONAL COMPLIANCE REQUIREMENTS**

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

7 A) a Deadband Tolerance Assessment;<sup>35</sup> and B) NEM vs. Non-NEM Marginal Costs.<sup>36</sup>

### 8 **A. Deadband Tolerance Assessment**

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

15 SDG&E has included the results of the deadband tolerance assessment in this Application, as  
16 discussed in the prepared direct testimony of SDG&E witness Jeff DeTuri (Chapter 5). The  
17 results of the assessment support the current base on-peak and off-peak TOU periods, but as  
18 discussed in Section V.A., indicate that prices are low during the mid-day hours. Therefore,  
19 SDG&E is proposing to extend the current March/April weekday Super Off-Peak period of 10  
20 AM – 2 PM throughout all months of the year.

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<sup>35</sup> D.17-01-006, OP 1 at 77-78, and Resolution E-4951 (September 13, 2018).

<sup>36</sup> D.21-07-010, OPs 1 and 2 at 88, adopted the 2019 GRC Phase 2 settlement agreement.



1

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

3           Pursuant to the SDG&E’s TY 2019 GRC Phase 2 Settlement Agreement, SDG&E was  
4 required to evaluate distribution and commodity NEM and non-NEM marginal costs in this  
5 application.<sup>37</sup> These marginal costs are presented in the prepared direct testimony of SDG&E  
6 witness William G. Saxe (Chapter 4) and witness Jeff DeTuri (Chapter 5). It is important to  
7 examine the differences between NEM and non-NEM customers to determine if there are  
8 significant differences in the cost to serve these customers. If the cost to serve certain customer  
9 groups is higher, it may serve as justification to require those customers to pay higher rates.  
10 Additionally, this analysis serves to inform the Commission whether there are cross-subsidies  
11 embedded within the current rate construct. The analysis is limited to distribution and  
12 commodity costs, and therefore, limited to those rate components.

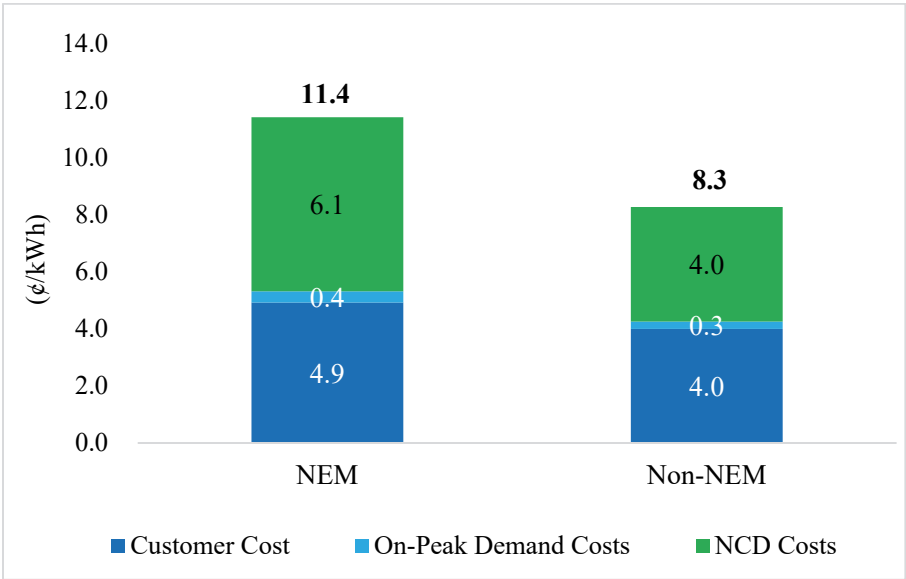
13           As shown in the prepared direct testimony of SDG&E witness William G. Saxe (Chapter  
14 6), the distribution cost to serve NEM customers is generally higher than non-NEM customers.  
15 Figure AP-6 below shows the illustrative residential marginal distribution cost rates to serve  
16 NEM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

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<sup>37</sup> D.21-07-010, Appendix B, Section 2.2.6 at 13.

1

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

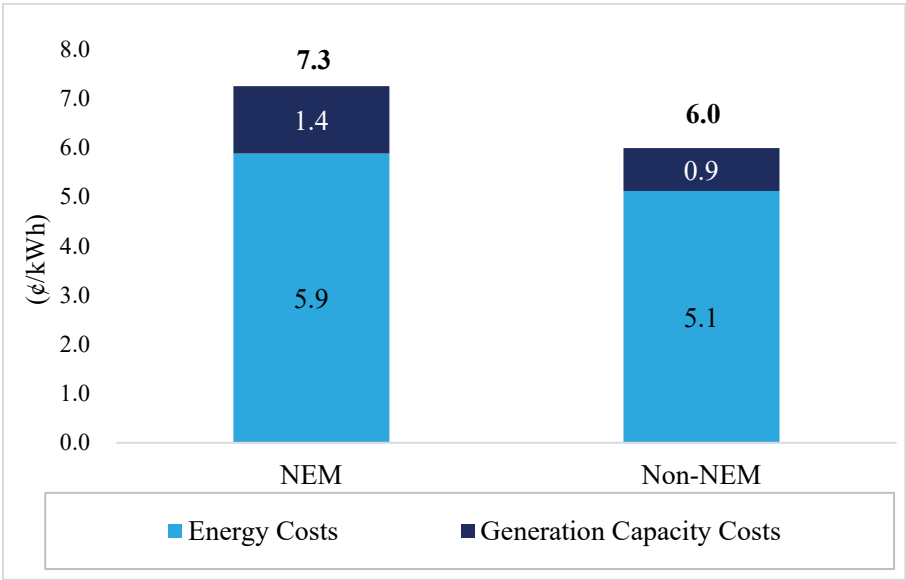


2

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 prepared direct testimony of SDG&E  
 5 witness Jeff DeTuri (Chapter 5). Figure AP-7 below shows the illustrative residential marginal  
 6 commodity cost to serve NEM and non-NEM customers.

7

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



8

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, and my business address is 8330 Century Park Court, San  
3 Diego, California 92123. I am the Director of Customer Pricing at SDG&E. My primary  
4 responsibilities include managing: the development of rate design in various regulatory filings,  
5 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 in 2007. Upon receiving my bachelor's  
8 degree, I was employed at financial services firms focusing on debt, equity and mergers and  
9 acquisitions transactions for energy and power companies. I joined Sempra Energy in 2012 and  
10 have held various positions of increasing responsibility at the Sempra family of companies  
11 including: Sempra Energy's Corporate Development Department, Sempra Renewables'  
12 Financial Analysis Department, and Sempra Energy's Investor Relations Department.

13 I have previously testified before the California Public Utilities Commission.