

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

Application: 19-03-002

Exhibit No.: _____

CHAPTER 1

REVISED PREPARED DIRECT TESTIMONY OF

JEFF P. STEIN

ON BEHALF OF SAN DIEGO GAS & ELECTRIC COMPANY

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

MAY 2019



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1 **REVISED PREPARED DIRECT TESTIMONY OF**
2 **JEFF P. STEIN**
3 **(CHAPTER 1)**

4 **I. INTRODUCTION**

5 This General Rate Case (“GRC”) Phase 2 Application presents San Diego Gas & Electric
6 Company’s (“SDG&E’s”) electric revenue allocation and rate design proposals associated with
7 the implementation of SDG&E’s test year 2019 GRC Phase 1 electric revenue requirement.¹
8 The testimony supporting the Application presents SDG&E’s marginal cost studies, revenue
9 allocation and rate design.

10 The purpose of my testimony is to discuss the overarching policy framework that guides
11 SDG&E’s proposals for revenue allocation and rate design. This Application covers the years
12 2020-2022, but SDG&E is proposing an implementation date beginning in 2021 for the
13 proposals in this Application, which reflects consideration of the timing of implementation of
14 SDG&E’s Customer Information System (“CIS”) replacement project, approved by the
15 California Public Utilities Commission (“CPUC” or “Commission”) in Decision (“D.”) 18-08-
16 008. The implementation of this CIS replacement project will require SDG&E to largely
17 “freeze” its information systems during 2020. The relatively limited rate design changes
18 proposed in this Application also reflect consideration of the implementation of the CIS
19 replacement project.

20 My testimony is organized as follows:

- 21 • Section II – Overview of SDG&E’s 2019 GRC Phase 2 Application
- 22 • Section III – SDG&E’s Policy Objectives and Rate Design Proposals Seek to
23 Balance the Commission’s Rate Design Policy Objectives

¹ Application (“A.”) 17-10-007.

- 1 • Section IV – Schools-Only Customer Class Proposal
- 2 • Section V – Additional Compliance Requirements
- 3 • Section VI – Implementation Timing
- 4 • Section VII – Witness Qualifications

5 **II. OVERVIEW OF SDG&E’S 2019 GRC PHASE 2 APPLICATION**

6 This Application includes the traditional elements of a GRC Phase 2 - cost allocation and
7 rate design - as well as specific requirements identified within various Commission decisions
8 and directives, including but not limited to D.17-08-030 (“2016 GRC Phase 2 Decision”), D.17-
9 01-006, (“Time of Use (“TOU”) Policy Decision”), D.18-10-035 (“2019 Electric Sales Forecast
10 Decision”), and Resolution E-4951 (“SDG&E Demand Charge Study Resolution”). As noted
11 above, given the timing of this Application and the implementation of SDG&E’s CIS, SDG&E is
12 proposing to maintain many aspects of its existing rate structure. SDG&E is proposing the
13 following:

- 14 • The creation of a new Schools-only customer class;
- 15 • Updated rates to reflect the sales forecast presented in the testimony of witness
16 Schiermeyer (Chapter 4); and
- 17 • Updated revenue allocations for some of the Public Purpose Programs (“PPP”) rate
18 components presented in the testimony of witness Emge (Chapter 2).

19 In the interest of promoting rate stability consistent with the Commission’s Rate Design
20 Principles (“RDP”), SDG&E is not proposing any updates to the revenue allocations for the
21 Distribution, Commodity, Competition Transition Charge (“CTC”), and Local Generation
22 Charge (“LGC”) rate components established by D.17-08-030, except as needed to accommodate
23 the addition of the Schools-only customer class. Table JS-1 below compares the revenue

1 allocations that reflect SDG&E’s 2019 GRC Phase 2 cost studies (“Cost-Based Allocation”)
 2 versus the revenue allocations SDG&E is proposing in this Application to promote rate stability
 3 (“Proposed Allocation”).

4 **Table JS-1: SDG&E Cost-Based and Proposed Revenue Allocations²**

	Distribution		Commodity		CTC		LGC	
	Cost-Based Allocation ¹	Proposed Allocation	Cost-Based Allocation ²	Proposed Allocation	Cost-Based Allocation ²	Proposed Allocation	Cost-Based Allocation ³	Proposed Allocation
Residential	51.4%	44.2%	45.0%	42.8%	43.2%	38.6%	43.1%	41.8%
Small Commercial	14.5%	15.7%	13.5%	13.2%	11.9%	12.5%	10.5%	10.8%
M/L C&I	30.9%	36.8%	37.3%	40.3%	41.6%	45.9%	45.0%	46.1%
Agricultural	1.2%	1.3%	1.9%	1.5%	1.1%	1.1%	1.1%	0.9%
Street Lighting	0.6%	0.6%	0.6%	0.4%	0.2%	0.0%	0.3%	0.4%
Schools	1.4%	1.4%	1.8%	1.8%	2.0%	2.0%	N/A	N/A

5 ¹See testimonies of SDG&E witnesses Emge (Chapter 2) and Saxe (Chapter 5).

6 ²See testimonies of SDG&E witnesses Emge (Chapter 2) and Montoya (Chapter 6).

7 ³Transmission Owner (“TO”) 5, Cycle 1, ER19-221-000.

8
 9 The Application is further supported by the following testimony:

- 10 • Chapter 2 (Jesse B. Emge): Presents SDG&E’s updated electric revenue allocation
 11 and limited proposals for changes to revenue allocations, as well as revenue
 12 allocation compliance requirements.
- 13 • Chapter 3 (Gwendolyn R. Morien): Presents SDG&E’s proposals to update rates to
 14 reflect updated sales forecasts, updated revenue allocations, electric rate design, and
 15 illustrative bill impacts to support those proposals, including:
 - 16 ○ Movement toward more cost-based rates including increases to existing monthly
 17 service fees; and
 - 18 ○ Discussion of a Schools-only customer class.

² Note that shortly before filing, SDG&E noted an error in the testimony of SDG&E witness Montoya (Chapter 6). This testimony reflects the revised Renewable Portfolio Standards price.

- 1 • Chapter 4 (Kenneth E. Schiermeyer): Provides SDG&E’s proposal for updated 2020,
2 2021, and 2022 sales forecasts.³
- 3 • Chapter 5 (William G. Saxe): Provides SDG&E’s proposed distribution marginal
4 costs (both customer costs and demand costs) and the cost basis for distribution
5 revenue allocation.
- 6 • Chapter 6 (Benjamin A. Montoya): Sets forth the basis for SDG&E’s commodity
7 marginal cost, including both energy costs and generation capacity costs, the cost
8 basis for commodity and CTC revenue allocations, and data to support SDG&E’s
9 current TOU periods, as well as the deadband tolerance analysis⁴ required in each
10 GRC Phase 2 Application.
- 11 • Chapter 7 (William G. Saxe): Describes SDG&E’s Street Lighting cost studies and
12 associated rate design proposals.

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

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

- 17 • Delivering approximately forty-five percent of SDG&E’s delivered electricity
18 from renewable resources;
- 19 • Integrating 1,050 megawatts (“MW”) of customer-sited solar and wind generation
20 from over 152,000 customers (more than 11% of SDG&E’s customers);
- 21 • Serving 34,900 electric vehicles (“EV”) within its service territory, making clean
22 driving more accessible with the Power-Your-Drive program, and expanding

³ In Ordering Paragraph (“OP”) 2 of D.18-11-035, the Commission directed SDG&E to file 2020, 2021, and 2022 sales forecasts for its customer classes in its next GRC Phase 2 application.

⁴ SDG&E’s proposed deadband tolerance methodology was approved with modifications in Resolution (“Res.”) 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 access to electric vehicle charging at businesses, multi-family communities and
2 disadvantaged neighborhoods; and

- 3 • Receiving the 2018 National ReliabilityOne™ Excellence Award for reliability,
4 as well as receiving the “Best in the West” award for electric reliability for 13
5 straight years, and the 2018 Edison Award from the Edison Electric Institute.

6 Despite significant progress in these areas, rate design has not evolved alongside a
7 changing energy marketplace, and this disconnect represents a barrier for customer technology
8 adoption and customer choice. To ensure the continued pursuit of the State’s clean energy goals
9 in a sustainable manner, it is critical to move toward rates that reflect accurate prices, and
10 incentives or subsidies that are direct and transparent.

11 As previously stated, SDG&E continues to support the RDPs adopted by the Commission
12 in Order Instituting Rulemaking (“R.”) 12-06-013. Table JS-2 below presents the RDPs in four
13 categories (consistent with D.15-07-001): (1) cost of service; (2) affordable electricity; (3)
14 conservation; and (4) customer acceptance.⁵ SDG&E’s proposals balance these rate design
15 principles.

16 **Table JS-2: Rate Design Principles⁶**

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.

⁵ D.15-07-001 at 264.

⁶ 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.

1 SDG&E continues to advocate for the movement towards more cost-based rates as
2 outlined by the Cost of Service RDPs in Table JS-2 above. In addition, SDG&E recognizes the
3 importance of ensuring balance of all the Commission’s RDPs. SDG&E in this Application is
4 seeking to continue to move forward with more cost-based rates with the rate design proposal,
5 discussed in the direct testimony of SDG&E witness Morien (Chapter 3) to increase certain
6 existing Monthly Service Fees (“MSF”) of the small commercial, Medium and Large
7 Commercial and Industrial (“M/L C&I”), and agricultural customer classes for two years in this
8 proceeding (2021 and 2022). SDG&E’s proposal to increase current MSFs results in an
9 offsetting decrease to other rate components, reduces bill volatility for customers, and is more
10 closely based on marginal cost (RDP 2) and cost-causation principles (RDP 3). In addition,
11 SDG&E’s proposal for limited updates to revenue allocations is intended to provide customers
12 with greater rate stability (RDP 6). Further, SDG&E’s proposal for a Schools-only customer
13 class will provide the Schools with rates based on their cost of service, and help to reduce cross-
14 subsidies between Schools and other rate classes (RDP 7).

15 **IV. SCHOOLS-ONLY CUSTOMER CLASS PROPOSAL AND APPLICABILITY**

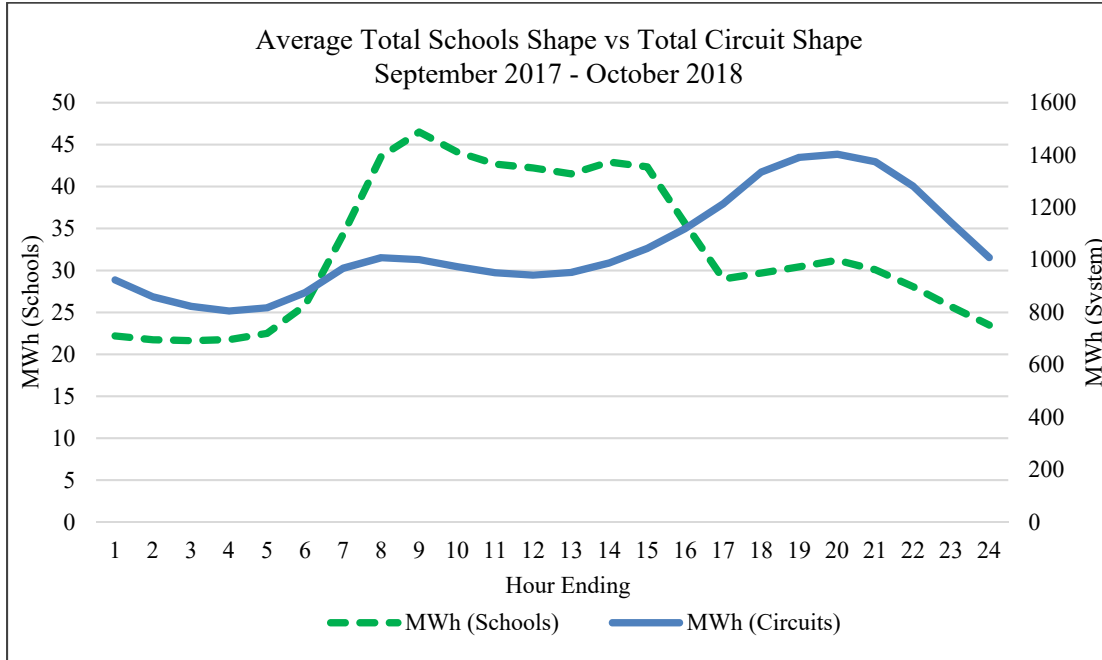
16 Per OP 36 of D.17-08-030, SDG&E is proposing to create a new customer class for
17 schools based on an update of the schools-only rate SDG&E presented to parties on November
18 28, 2018. SDG&E’s proposal includes two default rate schedules (TOU-SCH-S and TOU-SCH-
19 M/L) that will delineate between “small” and “medium/large” schools, which is consistent with
20 SDG&E’s categorization of Small Commercial and Small Agricultural customers and M/L C&I
21 and Large Agricultural customers. The testimonies of SDG&E witnesses Emge (Chapter 2) and
22 Morien (Chapter 3) discuss in more detail the revenue allocation and rate design of the proposed
23 Schools-only customer class.

1 SDG&E’s analysis shows that the cost to serve the Schools as a separate customer class
2 is lower on average than the M/L C&I customer class, which is the class from which many of the
3 school accounts currently take service. The testimony of SDG&E witness Montoya (Chapter 6)
4 discusses the methodology by which SDG&E assigns commodity costs to its customer classes.
5 Customers with usage in SDG&E’s highest demand hours are assigned higher commodity cost
6 responsibility. The majority of SDG&E’s highest demand hours are during its standard on-peak
7 TOU period, from 4-9 PM. This means that the Schools, by predominantly operating outside the
8 on-peak period when compared to the M/L C&I class, are assigned lower costs. These lower
9 marginal costs result in lower rates for the Schools, on average.

10 For distribution costs, as shown below in Figure JS-3, the load profile of the Schools
11 typically has its peak demand in the morning and afternoon, with the highest usage between 7
12 AM and 4 PM. The testimony of SDG&E witness Saxe (Chapter 5) discusses the methodology
13 by which SDG&E assigns distribution demand costs to its customer classes. Schools tend to be
14 located in residential areas, meaning that they typically take service on a circuit with a load
15 profile similar to that of an average residential customer. This pattern of demand has an overall
16 profile that is beneficial for SDG&E load needs.

1

Figure JS-3: Average Total Schools Shape and Total Circuit Shape*



2
3

**Circuits shown are only those that serve one or more school accounts.*

4

As a result, Schools are typically using energy when it is beneficial for their circuits, do not peak coincidentally with their respective circuits, and therefore are assigned fewer distribution costs. SDG&E’s proposals aim to provide the Schools with rates that reflect their actual cost to serve.

8

SDG&E proposes a rate design for the “small” schools that includes higher monthly service fees that more closely align with their cost of service. These higher monthly service fees result in lower compensating volumetric and demand rates. This rate design will help to reduce bill volatility for the Schools and allow these institutions to better plan and budget for energy expenses, as their usage may be less flexible than other customers. SDG&E’s rate design for “medium/large” schools is similar to current M/L C&I class rate design. SDG&E has not proposed changes to its FERC-jurisdictional rate design, as this is outside the scope of this proceeding. Pending approval of SDG&E’s proposed Schools-only customer class, SDG&E will

15

1 propose a Schools-only customer class within its FERC-jurisdictional rates in an appropriate
2 upcoming proceeding. SDG&E believes these proposals will allow the Schools to take greater
3 control over their energy usage, as well as allow them to realize the full value of past
4 technological investments that districts have made. SDG&E believes this proposal for a
5 Schools-only customer class is fair and in the public interest.

6 SDG&E proposes that only Schools that meet the definition of a “public school” under
7 Assembly Bill (“AB”) 2068 should be eligible to take service on its School customer class
8 tariffs, and that all schools accounts that meet this definition should be required to take service
9 on one of the schools schedules.⁷ In designing costs and rates for the Schools class, SDG&E
10 proposes that all customer accounts that meet this definition should be required to take service on
11 the School class tariffs, with an exception of the Street Lighting accounts and an opt-out
12 exception for separately metered EV charging. Pending Commission approval of SDG&E’s
13 Schools-only customer class, SDG&E will file an advice letter to implement the proposal,
14 including new tariff language.

15 **V. ADDITIONAL COMPLIANCE REQUIREMENTS**

16 SDG&E is required to provide other information as a part of this Application, including:
17 A) a Deadband Tolerance Assessment;⁸ B) Demand Charge Studies;⁹ C) a status report on
18 Distributed Energy Resources (“DER”) valuation methodologies;¹⁰ and D) a change to the
19 revenue allocation methodology for the Self-Generation Incentive Program (“SGIP”) charge,
20 which is recovered through the PPP rate component beginning July 1, 2018 per D.17-08-030.

⁷ AB 2068, section 749.5(a). “For the purposes of this section, ‘public school’ means a public school, including a charter school, maintaining a kindergarten, or any of the grades 1 to 12, inclusive.”

⁸ D.17-01-006 at OP 1 and Res. E-4951 (September 13, 2018).

⁹ D.17-08-030 at OPs 33-35 and Res. E-4951.

¹⁰ D.17-01-006 at OP 3.

1 **A. Deadband Tolerance Assessment**

2 D.17-01-006 required SDG&E to conduct a deadband tolerance test for determining
3 when a change would trigger TOU period revisions more frequently than five-year intervals, and
4 provide Base TOU period analysis. As directed, SDG&E filed AL 3064-E on April 3, 2017,
5 proposing a two-part methodological test for the deadband tolerance rate. The CPUC issued
6 Resolution E-4948 on November 29, 2018, approving SDG&E’s proposal in part, and SDG&E
7 filed supplemental AL 3064-E-A on December 17, 2018 to comply with the resolution. SDG&E
8 has included the results of the deadband tolerance assessment in this Application, as discussed in
9 the testimony of SDG&E witness Montoya (Chapter 6). The results of the assessment support
10 the current base TOU periods, and SDG&E is not proposing a change to the Base TOU periods
11 in this Application.

12 The Commission has adopted general principles in respect to developing and
13 implementing changes in Base TOU periods.¹¹ Principle 5 states that Base TOU periods should
14 continue for a minimum of five years (unless there are material changes that warrant a change)
15 and that IOUs should propose new Base TOU periods (if warranted) at least every two GRC
16 cycles.¹² SDG&E recently implemented new TOU periods on December 1, 2017 as a result of
17 its most recent GRC Phase 2 Decision (D.17-08-030), less than two years ago. Due to SDG&E’s
18 recent implementation of its new TOU periods, coupled with the results of its deadband tolerance
19 assessment, SDG&E is not proposing any changes to its TOU periods in this Application.

¹¹ *Id.* at 7.

¹² *Id.*

1 **B. Demand Charge Studies**

2 In its last GRC Phase 2 Decision (D.17-08-030), SDG&E was ordered to undertake three
3 demand charge studies. As directed by Ordering Paragraphs (“OP”) 32 and 33 of D.17-08-030
4 and Resolution E-4951, SDG&E will submit its distribution and generation demand charge
5 studies as supplemental testimony within 60 days of the Application date.¹³ And per OP 34 of
6 D.17-08-030, a transmission demand charge study has been filed at the Federal Energy
7 Regulatory Commission (“FERC”). Because the distribution and generation demand charge
8 studies will be served after the submittal of this direct testimony, and the results of these studies
9 are intended to inform demand charge rate design, SDG&E has not proposed a change to the
10 current non-coincident-to-peak-demand cost percentage split for M/L C&I class demand charge
11 rate design. Therefore, SDG&E proposes to maintain the current 39%/61% split of non-
12 coincident-to-peak-demand charge cost allocation in its rate design. Maintaining the current
13 method of cost recovery for distribution demand will also create more certainty for customers
14 who made technological investments in the past and help them to recover the cost of their
15 investments as planned.

16 **C. DER Valuation Methodologies**

17 In compliance with D.17-06-001, SDG&E has included information on the status of DER
18 valuation methodologies being developed in two Rulemakings:¹⁴ (1) R.14-08-013, Order
19 Instituting Rulemaking Regarding Policies, Procedures and Rules for Development of
20 Distribution Resources Plans (“DRP”), and (2) R.14-10-003, Order Instituting Rulemaking to

¹³ Res. E-4951 at OP 1, OP 2, and OP 3. SDG&E filed its demand charge study proposals on December 21, 2017 in AL 3166-E, which the Commission approved, with modifications, on September 13, 2018 in Res. E-4951 and is effective as of August 14, 2018.

¹⁴ D.17-06-001 at OP 3.

1 Create a Consistent Regulatory Framework for the Guidance, Planning and Evaluation of
2 Integrated Distributed Energy Resources (“IDER”).

3 In R.14-08-013, the Commission has adopted three Locational Net Benefit Analysis
4 (“LNBA”) use cases: use case #1) A Public Tool and Heat map; use case #2) Prioritization of
5 candidate distribution deferral opportunities as part of the Distribution Investment Deferral
6 Framework; and use case #3) Provision of location-specific avoided transmission and
7 distribution inputs into the IDER Avoided Cost Calculator (“ACC”) for cost-effectiveness
8 evaluation. SDG&E implemented use case #1 on a system-wide basis on December 28, 2018.
9 For use case #2, SDG&E implemented the Commission-approved LNBA methodology on a
10 system-wide basis by September 1, 2018.¹⁵ The Commission adopted use case #3 to inform
11 cost-effectiveness evaluations, DER incentive levels, and other applications. As directed in
12 D.17-09-026 (OP 15), on December 5, 2017, SDG&E filed and served a proposal for using the
13 LNBA-derived transmission and distribution values in the DER Avoided Cost Calculator
14 (“ACC”). The Energy Division held a workshop on December 20, 2018 to discuss the
15 challenges and options for calculating avoided transmission and distribution costs and potential
16 applications of locational values. A ruling is expected to be issued that will inform next steps,
17 which may include directing parties to file and serve post-workshop comments.

18 In R.14-10-003, as directed by D.16-12-036 (OP 5), SDG&E used the Approved
19 Valuation Components for Distribution Grid Services Competitive Solicitations contained in
20 Appendix A of that Decision to evaluate bids received in response to SDG&E’s Incentive Pilot
21 solicitation.

¹⁵ D.17-09-026 at OP 16 and D.18-02-004 at 41.

1 **D. Self-Generation Incentive Program (“SGIP”) Allocation**

2 As part of Resolution 4926-E, SDG&E is required to change the current revenue
3 allocation methodology of SGIP in this Application so that its revenue allocation allocates costs
4 on the basis of the actual benefits resulting from the disbursement of program incentives over the
5 previous three years in its service territory and is updated on a rolling basis annually to account
6 for changes in eligibility and market factors. The SGIP revenue allocation methodology is
7 discussed further in the direct testimony of SDG&E witness Emge (Chapter 2).

8 **VI. TIMING OF IMPLEMENTATION**

9 SDG&E’s implementation timing proposal accommodates SDG&E’s current CIS
10 replacement project, which the Commission approved in D.18-08-008. The implementation of
11 this CIS replacement will require SDG&E to largely “freeze” its information systems during
12 2020. For this reason, SDG&E has proposed an implementation timeline beginning in 2021 for
13 the proposals included in this Application.

14 This concludes my prepared direct testimony.

1 **VII. WITNESS QUALIFICATIONS**

2 My name is Jeff P. Stein and my business address is 8330 Century Park Court, San
3 Diego, California 92123. I am the Manager of Customer Pricing at SDG&E. My primary
4 responsibilities include the development of cost-of-service studies, determination of revenue
5 allocation and electric rate design methods, analysis of ratemaking theories, and preparation of
6 various regulatory filings.

7 I received a Bachelor of Science degree in Business Administration with an emphasis in
8 Accounting from San Diego State University in 2003. I am a Certified Public Accountant in the
9 state of California and I continue to maintain an active status license with practice rights by
10 fulfilling the continuing professional education requirements.

11 Upon receiving my Bachelor's degree, I was employed by a Public Accounting and
12 Advisory services firm. After two years of public accounting, I joined Sempra Energy in 2006
13 and have held various positions of increasing responsibility in Sempra Energy's Internal Audit
14 Department, SDG&E's Business Controls Department, SDG&E's Accounting Operations, and
15 SDG&E's Transmission Revenue Department.

16 I have previously submitted testimony before the CPUC and before the FERC.

SDG&E 2019 GRC Phase 2 Testimony Revision Log – May 2019

Witness	Page	Line	Revision Detail
Stein (Chapter 1)	JS-3	Table JS-1	Replaced entire table with revised values.
Stein (Chapter 1)	JS-3	Footnote 2	Revised footnote.