

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-____
Exhibit No: _____

CHAPTER 4

PREPARED DIRECT TESTIMONY OF

KENNETH E. SCHIERMEYER

ON BEHALF OF SAN DIEGO GAS & ELECTRIC COMPANY

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

MARCH 2019



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**PREPARED DIRECT TESTIMONY OF
KENNETH E. SCHIERMEYER
(CHAPTER 4)**

I. INTRODUCTION AND PURPOSE

The purpose of this testimony is to present San Diego Gas & Electric Company's ("SDG&E") 2020, 2021 and 2022 electric sales forecast. In addition, this testimony provides an overview of SDG&E's process for the development of forecasted rate design determinants that are used as part of this Application.

The testimony is organized as follows:

- **Section II – Background:** Discusses the use of net and delivered sales in prior applications. Provides a background of recent applications that included electric sales forecasts. Provides the background for the introduction of an updated electric sales forecast in this proceeding.
- **Section III – SDG&E's 2020, 2021 and 2022 Electric Sales Forecast:** Presents SDG&E's updated electric sales forecast for 2020, 2021 and 2022. Presents the difference between the currently authorized (2019)¹ and proposed electric sales forecast provided in this testimony.
- **Section IV – SDG&E Rate Determinant Process:** Describes the process to turn the sales forecast into rate determinants.
- **Section V - Conclusion**
- **Section VI - Witness Qualifications**

¹ Application ("A.") 18-03-003, which resulted in Decision ("D.") 18-11-035.

- **Attachment A (Compliance Requirement per Ordering Paragraph (“OP”) 2 of D.18-11-035)²** - Historic Actual and Forecasted Sales by class for 2010-2018.
- **Attachment B** – Comparison of Reported, Net and Delivered Sales

II. BACKGROUND

Since SDG&E’s 2015 Rate Design Window (“RDW”)³ application, SDG&E’s forecasted sales and associated rate design determinants have been based on net sales and delivered sales. Net sales represent sales with an adjustment to account for excess photovoltaic (“PV”) generation that occurs on a monthly basis. Delivered sales represent sales provided to the customer that would have otherwise been netted out by excess generation on an hourly basis. SDG&E continued the use of net and delivered sales in its 2016 General Rate Case (“GRC”) Phase 2⁴ and 2019 Electric Sales Forecast⁵ applications.

SDG&E’s current authorized sales were approved by the Commission on December 7, 2018 in D.18-11-035. Ordering Paragraph 2 of D.18-11-035 required SDG&E to file 2020, 2021 and 2022 sales forecasts for their customer classes in SDG&E’s next GRC Phase 2 application.

III. SDG&E’S PROPOSED 2020, 2021 AND 2022 ELECTRIC SALES FORECAST

SDG&E requests that the Commission approve the forecast of electric sales for 2020, 2021 and 2022 as presented in Table KS-1 below.

² OP 2 of D.18-11-035 states: “San Diego Gas & Electric Company (SDG&E) shall file 2020, 2021, and 2022 sales forecasts for its customer classes in its next General Rate Case Phase II application. SDG&E shall provide actual annual sales data for each of its classes, as opposed to the California Energy Commission’s recorded sales for each class, dating back to 2010, and the sales forecasts used in each of those years for each class, so that the Commission may determine if the proposed forecasted sales unreasonably underestimate the sales for a given class.”

³ A.14-01-027 (which culminated in D.15-08-040).

⁴ A.15-04-012 (which culminated in D.17-08-030).

⁵ A.18-03-003 (which culminated in D.18-11-035).

**TABLE KS-1:
SDG&E's PROPOSED 2020, 2021 AND 2022 FORECASTED ANNUAL NET⁶
ELECTRIC SALES (GWh)**

Sector	Proposed 2020	Proposed 2021	Proposed 2022
Residential	5,717	5,610	5,610
Small Commercial	2,176	2,171	2,171
Med & Large Com/Ind	9,472	9,456	9,456
Agricultural	317	316	316
Lighting	86	85	85
Total	17,768	17,638	17,638

The electric sales forecast presented in Table KS-1 is based on the California Energy Commission's ("CEC") 2018 California Energy Demand Update forecast ("CEC 2018"),⁷ which the CEC adopted on January 9, 2019 and which includes a forecast for SDG&E's service territory.

The CEC's forecast of electric sales is based on the following key drivers:

- Electric Consumption
- AAEE ("Additional Achievable Energy Efficiency")⁸
- Private Supply (Self-Generation, e.g., PV)

⁶ SDG&E's proposed delivered sales are provided in Attachment B, attached herein.

⁷ California Energy Commission, *Workshops, Meetings, and Request Comments for 2018 Integrated Energy Policy Report Update Proceeding*, available at https://www.energy.ca.gov/2018_energypolicy/documents/. See section labeled "California Energy Demand Updated Forecast, 2018-2030." The forecast years 2020-2022 are based on the mid-demand forecast, which includes the impacts of the CEC's Private Supply and Additional Achievable Energy Efficiency ("AAEE").

⁸ The CEC defines AAEE as energy savings that are not committed but are deemed reasonably likely to occur and include the impacts from future updates of building codes and appliance standards and utility efficiency programs.

- Electric Sales

A summary of the CEC 2018 sales forecast for 2020, 2021 and 2022 is presented below in Table KS-2. The CEC 2018 forecast is based on reported sales that do not account for over-generation that occurs on a monthly basis (known as “net”).

**TABLE KS-2:
CEC ELECTRIC SALES FORECAST - SYSTEM LEVEL (GWh)**

	2020	2021	2022
Consumption	21,824	22,184	22,759
- AAEE	-529	-727	-926
- Private Supply	-3,312	-3,577	-3,745
= Electric Sales	17,984	17,881	18,088

As shown in Table KS-2, the CEC assumes that sales increase from 2021 to 2022. SDG&E has concerns with the forecasted increase in sales given the historic persistence of sales declines in its service territory; therefore, SDG&E proposes a modification to the CEC’s forecast of 2020, 2021 and 2022 to assume 2022 is constant when compared with 2021. SDG&E’s proposal for the 2022 adjustment is detailed in Table KS-3 below.

**TABLE KS-3:
SDG&E 2022 ADJUSTMENT TO CEC 2018 ELECTRIC SALES FORECAST –
SYSTEM LEVEL (GWh)**

	2020	2021	Adjusted 2022
Electric Sales	17,984	17,881	17,881

As noted above, the CEC’s forecast does not account for over-generation that occurs on a monthly basis (known as “net”) or sales provided to the customer that would have otherwise been netted out by excess generation on an hourly basis (known as “delivered”). Therefore,

1 | SDG&E makes additional adjustments to private supply to account for net sales and delivered
 2 | sales. These adjustments are presented below in tables KS-4 and KS-5.

3 | **TABLE KS-4:**
 4 | **SDG&E ADJUSTMENT TO CEC 2018 ELECTRIC SALES FORECAST FOR NET**
 5 | **SALES (GWh)**

	Proposed 2020	Proposed 2021	Proposed 2022
Consumption	21,824	22,184	
- AAEE	-529	-727	
- Private Supply	-3,312	-3,577	
- Additional adjustment to Private Supply for Net Sales	-215	-243	
= Electric Net Sales	17,768	17,638	17,638

6 | **TABLE KS-5:**
 7 | **SDG&E 2022 ADJUSTMENT TO CEC 2018 ELECTRIC SALES FORECAST FOR**
 8 | **DELIVERED SALES (GWh)**

	Proposed 2020	Proposed 2021	Proposed 2022
Consumption	21,824	22,184	
- AAEE	-529	-727	
- Private Supply	-3,312	-3,577	
Additional adjustment to Private Supply for Net Sales	-215	-243	
Additional adjustment to Private Supply for Delivered Sales	1,134	1,272	
= Electric Delivered Sales	18,902	18,910	18,910

SDG&E is proposing to implement the 2021 sales forecast as part of this Application. Table KS-6 below compares SDG&E’s currently authorized electric sales (2019) with SDG&E’s proposed 2021 electric sales.

**TABLE KS-6
COMPARISON OF ANNUAL ELECTRIC NET SALES (GWh) – 2019 VERSUS 2021**

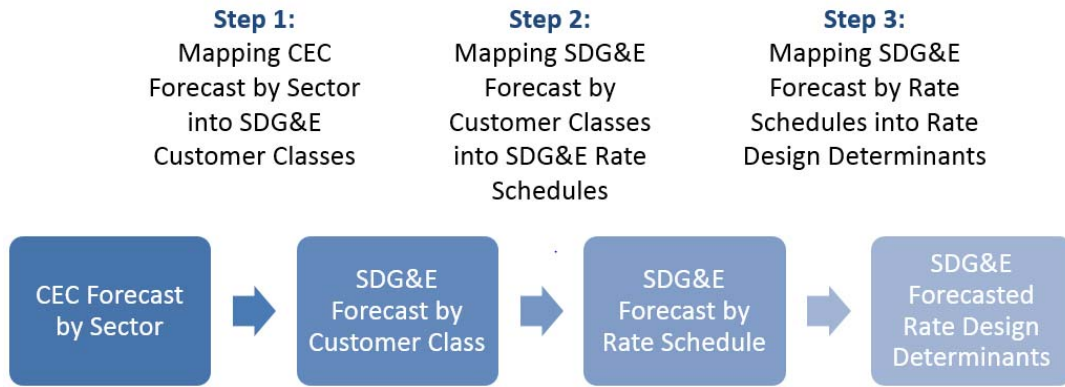
Sector	Authorized 2019	Proposed 2021	Difference	% Difference
Residential	6,105	5,610	-495	-8.1%
Small Commercial	2,262	2,171	-91	-4.0%
Med & Large Com/Ind	9,441	9,456	+15	+0.2%
Agricultural	323	316	-7	-2.1%
Lighting	80	85	+5	+6.2%
Total	18,211	17,638	-573	-3.1%

The process for the development of SDG&E’s proposed 2020, 2021 and 2022 electric sales forecast by customer class and rate determinants is discussed in the section below.

IV. SDG&E DETERMINANT PROCESS

This section describes the process to turn the sales forecast into rate determinants. This process was previously presented in a workshop during SDG&E’s Application for Approval of its 2019 Electric Sales Forecast (A.18-03-003).

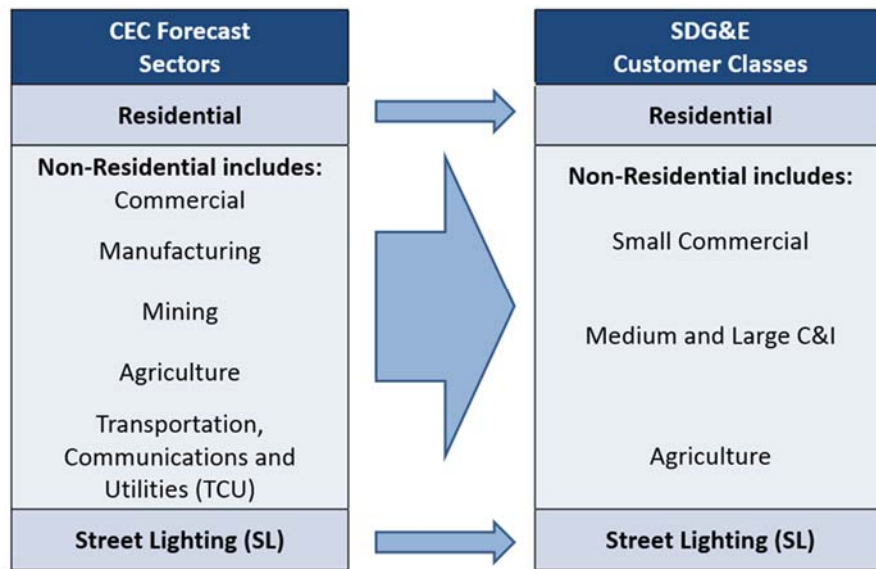
SDG&E’s process for the development of forecasted rate design determinants from the CEC’s electric sales forecast involves three steps, as set forth below.



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The first step involves the mapping of the CEC forecast by sector to SDG&E’s customer classes. The sales forecast developed at the CEC includes a forecast by sectors that differs from SDG&E’s customer classes as presented in Figure 1 below.

Figure 1
Mapping CEC Forecast by Sector in SDG&E Customer Classes



1 While the Residential and Street Lighting sectors from the CEC forecast map directly
2 into SDG&E’s Residential and Street Lighting customer classes, the Non-Residential, Non-Street
3 Lighting sectors (Small Commercial, Medium and Large Commercial and Industrial (“M/L
4 C&I”) and Agricultural) do not map directly into SDG&E Non-Residential, Non-Street Lighting
5 customer classes. To assign the CEC Non-Residential, Non-Street Lighting sector sales to
6 SDG&E’s Non-Residential, Non-Street Lighting customer classes, SDG&E begins with the
7 assignment of sales to the Small Commercial class through the use of the North American
8 Industry Classification System (“NAICS”) codes.⁹ Next, for the mapping of the CEC forecast
9 for the Agricultural sector with SDG&E’s Agricultural customer class, consistent with the
10 methodology developed in SDG&E’s 2019 Electric Sales Forecast proceeding, SDG&E uses an
11 adjustment factor based on the 2-year historic average sales based on the SDG&E and CEC
12 Agricultural sector.¹⁰ After the assignment of Small Commercial class sales and Agricultural
13 class sales, the Non-Residential, Non-Street Lighting residual sales are then assigned to the M/L
14 C&I class. SDG&E’s monthly historical billing-cycle data are then used to further break out
15 the customer class sales forecast into rate schedule seasonal sales for use in the rate design
16 process.

17 **V. CONCLUSION**

18 SDG&E requests that the Commission find the proposed 2020, 2021 and 2022 electric
19 sales forecast presented in this testimony to be reasonable and approved for rate purposes.

20 This concludes my prepared direct testimony.

⁹ NAICS is the standard used by Federal statistical agencies to classify business establishments for the purposes of collecting, analyzing, and publishing statistical data.

¹⁰ The agriculture class 2-year adjustment factor was developed in SDG&E’s 2019 electric sales forecast application (A.18-03-003) and approved in D.18-11-035.

1 **VI. WITNESS QUALIFICATIONS**

2 My name is Kenneth E. Schiermeyer. My business address is 8306 Century Park Court,
3 San Diego, California, 92123. I am employed by SDG&E as the Electric Demand Forecasting
4 Manager in the Customer Pricing Department. My primary responsibilities include developing
5 and coordinating forecasts of customer growth and electric energy usage.

6 I have held my current position since December 2013. Since 1999, I have been employed
7 by SDG&E in various forecasting and analysis positions of increasing responsibility. From 1996
8 to 1999, I worked as a Computer Programmer and Project Manager for Directions in Research,
9 Inc.

10 I received a Bachelor of Science degree in Economics from Truman State University in
11 1994 and obtained a Master of Arts degree in Economics from Western Illinois University in
12 1996.

13 I have previously testified before this Commission.

ATTACHMENT A

REQUIREMENT PER ORDERING PARAGRAPH 2, D.18-11-035

ATTACHMENT A

REQUIREMENT PER ORDERING PARAGRAPH 2, D.18-11-035

“San Diego Gas & Electric Company (SDG&E) shall file 2020, 2021, and 2022 sales forecasts for its customer classes in its next General Rate Case Phase II application. SDG&E shall provide actual annual sales data for each of its classes, as opposed to the California Energy Commission’s recorded sales for each class, dating back to 2010, and the sales forecasts used in each of those years for each class, so that the Commission may determine if the proposed forecasted sales unreasonably underestimate the sales for a given class.”

Proposed Forecast Sales may be different than the Authorized Forecast Sales due to the effective authorized date of the proceeding and the timing of implementation. Multi-Year Proposed Forecast Sales did not occur until 2016. Years indicating “No Proposed Forecast Filed” would have used the same forecast in the preceding year where a forecast was filed.

Please refer to individual proceedings for additional information regarding Proposed Forecast Sales.

Year		Residential	Small Com	Med/Lg. Com	Agriculture	Lighting	Total
2010 ¹¹	ACTUAL	7,316	1,881	9,885	289	114	19,485
	PROPOSED	7,829	12,950 (no breakdown available)			111	20,890
2011	ACTUAL	7,385	1,932	9,780	311	106	19,515
	PROPOSED	No Proposed Forecast Filed for 2011					
2012 ¹²	ACTUAL	7,598	1,996	10,006	325	101	20,026
	PROPOSED	7,839	1,953	10,818	84	115	20,809
2013	ACTUAL	7,402	1,971	9,961	330	93	19,757
	PROPOSED	No Proposed Forecast Filed for 2013					
2014	ACTUAL	7,347	2,028	10,312	334	94	20,116
	PROPOSED	No Proposed Forecast Filed for 2014					
2015 ¹³	ACTUAL	7,152	1,924	10,429	325	90	19,919
	PROPOSED	7,385	2,047	10,375	323	104	20,234
2016 ¹⁴	ACTUAL	6,692	2,088	9,979	328	81	19,169
	PROPOSED	6,944	2,228	10,109	305	88	19,675
	ACTUAL	6,584	2,213	9,812	323	85	19,017

¹¹ 2009 Rate Design Window (A.08-11-014).

¹² 2012 General Rate Case Phase 1 (A.10-12-005).

¹³ 2015 Rate Design Window (A.14-01-027).

¹⁴ A.15-04-012, Prepared Rebuttal Testimony of Kenneth E. Schiermeyer (Chapter 4) (August 30, 2016), Ex. SDG&E-14/Schiermeyer.

2017 ¹⁵	PROPOSED	6,803	2,241	10,167	305	86	19,602
2018 ¹⁶	ACTUAL	6,359	2,182	9,814	324	87	18,767
	PROPOSED	6,608	2,244	10,165	302	85	19,403
2019 ¹⁷	ACTUAL	Unavailable					
	PROPOSED	6,221	2,267	9,456	326	80	18,349

Proceeding (Docket Number)	Rates Effective
2009 Rate Design Window (A.08-11-014)	1/1/2010
2012 General Rate Case Phase 1 (A.10-12-005)	5/1/2014
2015 Rate Design Window (A.14-01-027)	11/1/2015
2016 General Rate Case Phase 2 Rebuttal (A.15-04-012)	11/1/2017
2019 Electric Sales Forecast (A.18-03-003)	1/1/2019

¹⁵ *Id.*

¹⁶ *Id.*

¹⁷ 2019 Electric Sales Forecast Application (A.18-03-003).

ATTACHMENT B

COMPARISON OF REPORTED, NET AND DELIVERED SALES

ATTACHMENT B

(COMPARISON OF REPORTED, NET AND DELIVERED SALES)

COMPARISON OF 2020 REPORTED, NET AND DELIVERED SALES (GWH)

Customer Class	Reported	Net	Delivered
Residential	5,901	5,717	6,653
Small Commercial	2,183	2,176	2,200
Med & Large Com/Ind	9,494	9,472	9,633
Agriculture	320	317	330
Lighting	86	86	86
Total System	17,984	17,768	18,902

COMPARISON OF 2021 AND 2022 REPORTED, NET AND DELIVERED SALES (GWh)

Customer Class	Reported	Net	Delivered
Residential	5,818	5,610	6,665
Small Commercial	2,179	2,171	2,198
Med & Large Com/Ind	9,479	9,456	9,633
Agriculture	319	316	330
Lighting	85	85	85
Total System	17,881	17,638	18,910