

Company: San Diego Gas & Electric Company (U 902 M)  
Proceeding: 2019 General Rate Case  
Application: A.17-10-007  
Exhibit: SDG&E-33-R

**REVISED**

**SDG&E**

**DIRECT TESTIMONY OF R. CRAIG GENTES**

**(RATE BASE)**

**DECEMBER 2017**

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





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## **SUMMARY**

- My testimony presents San Diego Gas & Electric Company's (SDG&E's) weighted average rate base for recorded year 2016, estimated years 2017 and 2018, and Test Year (TY) 2019.
- In addition, my testimony describes the development of SDG&E's rate base and its components including the various methodologies used to derive the TY 2019 rate base of \$5.3 billion for Electric and \$1.0 billion for Gas.

**SDG&E DIRECT TESTIMONY OF R. CRAIG GENTES**  
**(RATE BASE)**

**I. PURPOSE**

My testimony presents San Diego Gas & Electric Company's (SDG&E) weighted average rate base for Electric and Gas operations for recorded year 2016, estimated years 2017 and 2018, and Test Year (TY) 2019. In addition, my testimony describes the development of rate base and its components including the various methodologies used to derive the TY 2019 rate base of \$5.3 billion for Electric and \$1.0 billion for Gas.

**II. SUMMARY OF REQUEST**

Table SDGE-RCG-1 below presents SDG&E's total weighted average rate base request for combined Electric and Gas operations for TY 2019.

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Table SDGE-RCG-1

San Diego Gas and Electric Company  
WEIGHTED AVERAGE DEPRECIATED RATE BASE  
Summary Total CPUC  
(Thousands of Dollars)

Line No.	Account Description	Recorded Year 2016	Estimated Year		Test Year 2019
			2017	2018	
<i>Fixed Capital</i>					
1	Plant In Service	\$ 9,805,446	\$ 10,476,624	\$ 11,283,000	\$ 12,567,599
2	Total Fixed Capital	\$ 9,805,446	\$ 10,476,624	\$ 11,283,000	\$ 12,567,599
<i>Working Capital</i>					
3	Fuel in Storage	\$ 285	\$ 285	\$ 285	\$ 285
4	Materials & Supplies	101,671	109,199	111,999	114,891
5	Working Cash*	100,712	104,237	107,885	175,117
6	Total Working Capital	\$ 202,668	\$ 213,720	\$ 220,169	\$ 290,293
<i>Other Deductions</i>					
7	Repair Deductions Rate Base Adjustment (2016 - 2042) <sup>1</sup>	\$ (54,952)	\$ (52,838)	\$ (50,725)	\$ (48,611)
8	Customer Advances For Construction	(36,380)	(37,591)	(35,422)	(35,422)
9	Total Other	\$ (91,332)	\$ (90,429)	\$ (86,147)	\$ (84,033)
<i>Deductions For Reserves</i>					
10	Accumulated Depreciation Reserve	\$ 4,205,342	\$ 4,451,174	\$ 4,710,567	\$ 4,981,440
11	Accumulated Amortization Reserve	318,851	386,857	465,127	548,525
12	Accumulated Deferred Taxes	713,979	752,483	838,473	928,294
13	Total Deductions For Reserves	\$ 5,238,172	\$ 5,590,514	\$ 6,014,167	\$ 6,458,259
14	Weighted Average Depreciated Rate Base	\$ 4,678,610	\$ 5,009,402	\$ 5,402,856	\$ 6,315,601

<sup>1</sup> D.16-06-054, p. 192

\*2016 to 2018 Working Cash based on TY 2016 GRC Decision.

### III. METHODOLOGY

Rate base is defined as the net investment of property, plant, equipment, and other assets that SDG&E has acquired or constructed to provide utility services to its customers. The weighted average rate base is calculated using a 13-month average (the sum of the monthly balances from December of the prior year through December of the current year, less one-half of each December balance, divided by 12). The weighted average balance method has been an accepted industry practice for all California utilities and is a California Public Utilities Commission (Commission or CPUC) approved methodology adopted in prior rate-setting proceedings.

1 The four major components of rate base include Fixed Capital, Working Capital, Other  
2 Deductions, and Deductions for Reserves. This section provides a detailed description of the  
3 methodology used to forecast plant-in-service, which is included in Fixed Capital and is the  
4 largest component of the weighted average rate base. As with other rate base components, plant-  
5 in-service is computed based on original cost and is shown on a weighted average basis. To  
6 determine the plant balances for the estimated years 2017 and 2018, and TY 2019, capital  
7 expenditure information was provided through the annual planning process as described below.

#### 8 **A. Capital Planning Process**

9 This section describes the capital planning process for general rate case (GRC)-funded  
10 capital that is non-balanced. The capital planning process is SDG&E's current process for  
11 prioritizing funding based on risk-informed priorities and input from operations. The capital  
12 planning process leads to organizational budgets. For non-balanced base capital, the SDG&E  
13 Executive Finance Committee (EFC) establishes a total annual capital expenditure target  
14 consistent with our authorized revenue requirement funding over the GRC cycle period. From  
15 this total allocation, funding is prioritized based on risk-informed priorities and continuous input  
16 from operations.

- 17 • **Step 1** – Initial capital allocations begin with input from Functional Capital  
18 Committees (FCCs), which are organized by the nature and type of capital investment  
19 or function: Electric Distribution, Electric Generation, Electric Transmission,<sup>1</sup> Gas  
20 Operations, Customer Services, Information Technology (IT), and Facilities/Other.  
21 These teams of managers and subject matter experts perform a high-level assessment  
22 of the capital requirements for serving customers to ensure that infrastructure is  
23 maintained and developed to provide safe, reliable service with the highest risk  
24 mitigation at the lowest attainable costs. Each FCC elicits broad input for developing  
25 each function's capital plan and formulates a prioritized grouping of annual spending  
26 requirements.
- 27 • **Step 2** - The capital requirements identified by the FCCs are provided to the Capital  
28 Planning Committee (CPC), a cross-functional team of directors representing each  
29 operational area with capital requests. The CPC reviews the FCC submissions, cross-

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<sup>1</sup> Electric Transmission falls within the jurisdiction of the Federal Energy Regulatory Commission (FERC), and is therefore not included in this GRC.

prioritizes projects among the FCCs, and establishes a final ranking of proposed capital work. Projects determined to have the highest ratings on key priority metrics will receive the highest priority for funding. These key priority metrics include: safety, cost effectiveness, reliability, security, environmental, and customer experience.

- **Step 3** - The CPC presents its recommendations for capital spending consistent within each functional area and consistent with the overall funding target to the EFC, which reviews the recommendations and either approves the proposed capital funding allocations or requests changes.

Once the capital allocations are approved, each individual operating organization is chartered to manage their respective capital needs within the capital allotted by the plan. The real-time prioritization of work within the context of the budget allocations is completed by the front-line and projects managers on an ongoing and continuous basis. Regulatory compliance deadlines, customer scheduling requirements, and overall infrastructure conditions are all factors taken into consideration as work elements are executed. Progress on existing capital projects is monitored and reviewed on a monthly basis by the CPC and EFC, and any new projects stemming from incremental Commission directives or changing business needs are evaluated and assessed throughout the year to determine whether current capital allocation should be reprioritized. Prior to starting a project or making any commitments, the project manager must secure specific project approval signatures in accordance with SDG&E's Internal Order process,<sup>2</sup> and the Sempra Energy Utilities' approval and commitment policy.

Similar to SDG&E's risk evaluation processes,<sup>3</sup> the capital planning process continues to evolve as SDG&E endeavors to achieve its and the Commission's shared goal of determining the risk reduction per dollar invested. SDG&E, together with Southern California Gas Company (SoCalGas), demonstrate the first steps towards this evolution by showcasing a pilot they are currently conducting to calculate a risk spend efficiency for their proposed risk mitigations.<sup>4</sup> The

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<sup>2</sup> A Work Order Authorization form is used to document the approval authority of capital project expenditures. The appropriate level of approval authority required is based on pre-determined dollar thresholds which vary with the level of capital expenditures.

<sup>3</sup> SDG&E's risk evaluation processes are described in Investigation (I.) 16-10-015/I.16-10-016, Risk Assessment and Mitigation Phase Report of San Diego Gas & Electric Company and Southern California Gas Company, November 30, 2016 (RAMP Report).

<sup>4</sup> See RAMP Report at RAMP-A: Overview and Approach.



1 current status of the risk reduction per dollar invested metric is discussed in the testimony of  
2 Diana Day (Exhibit SCG-02/SDG&E-02, Chapter 1).

### 3 **B. Plant-In-Service**

4 Based on the projected capital expenditures and estimated completion dates provided by  
5 organizational budget planners, electric distribution, nuclear and non-nuclear generation, and gas  
6 plant balances are developed using estimated in-service dates for non-routine projects, historical  
7 experience from 2012 to 2016 for plant additions on routine projects, and projected plant  
8 retirements based on historical experience from 2012 to 2016 as the plant-in-service component  
9 of rate base.

10 As shown in the Fixed Capital section of Table SDGE-RCG-1 above, SDG&E's TY 2019  
11 plant-in-service is projected to increase, reflecting higher capital expenditures in 2019 as  
12 compared to previous years. The major drivers for the increase in capital expenditure levels are  
13 described in detail in the testimonies of SDG&E's respective capital witnesses: Electric  
14 Distribution Capital – Alan Colton (Exhibit SDG&E-14); Gas Distribution – Gina Orozco-Mejia  
15 (Exhibit SDG&E-04); Gas Engineering – Deanna Haines (Exhibit SDG&E-09); Gas  
16 Transmission – Michael Bermel and Beth Musich (Exhibit SDG&E-07); Pipeline Integrity for  
17 Transmission and Distribution – Maria Martinez (Exhibit SDG&E-11); Information Technology  
18 – Chris Olmsted (Exhibit SDG&E-24); Cybersecurity – Gavin Worden (Exhibit SDG&E-25);  
19 Real Estate, Land Services, & Facilities – R. Dale Tattersall (Exhibit SDG&E-22); Electric  
20 Generation – Daniel Baerman (Exhibit SDG&E-16).

21 A component of plant-in-service is allowance for funds used during construction  
22 (AFUDC). Accruing for AFUDC is a generally accepted regulatory accounting procedure to  
23 capitalize the cost of debt and equity funds used to finance capital additions. SDG&E utilizes  
24 the AFUDC formula mandated by FERC's Uniform System of Accounts (USofA),<sup>5</sup> which the  
25 CPUC has authorized the utilities to follow. Consistent with prior SDG&E rate case proceedings  
26 before this Commission, including Decision (D).16-06-054, SDG&E typically uses its authorized  
27 Rate of Return (ROR)<sup>6</sup> as a reasonable proxy for estimating AFUDC applied to construction  
28 work in progress (CWIP) in the Results of Operations (RO) model. Historically, SDG&E uses

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<sup>5</sup> 18 Code of Federal Regulations (CFR) Part 101, Electric Plant Instruction 3(A)17 and 18 CFR Part 201, Gas Plant Instruction 3(A)17.

<sup>6</sup> SDG&E's current authorized ROR is 7.55% per Advice Letter 3120-E/2611-G effective as of January 1, 2018.

1 its authorized ROR for forecasting purposes, which reasonably approximates its actual AFUDC  
2 rates. Other than the authorized ROR, there is no separate forecast of debt and equity in  
3 developing AFUDC rates for the GRC period. On an actual basis, SDG&E applies an AFUDC  
4 rate that is computed in conformance with the formula prescribed by FERC's USofA. SDG&E's  
5 recorded AFUDC rate is derived by taking its capital structure at the time of the calculations and  
6 weighting its actual capital structure by the authorized return on equity (ROE), actual costs of  
7 debt, and authorized preferred stock costs as adopted by D.12-12-034.

8         SDG&E's authorized capital structure is comprised of common equity, long-term debt,  
9 and preferred stock. There is no "authorized" short-term debt component in the authorized  
10 capital structure because SDG&E finances its capital investments with long-term debt and  
11 equity. This is consistent with prudent financial management where long-lived assets such as  
12 plant and equipment are financed with long-term borrowing and equity. Short-term debt,  
13 however, is used for temporary fluctuations and needs in the cash flow cycle and is not used for  
14 long-term ongoing financing of SDG&E long-lived investments. There may be times when  
15 SDG&E temporarily carries balances of short-term debt due to balancing account under-  
16 collections and/or fluctuations in timing of cash inflows and cash outflows which warrant using  
17 short-term debt. Outstanding short-term debt is factored into the AFUDC calculations to the  
18 extent the short-term debt exceeds the approved allowable FERC regulatory thresholds. As a  
19 result, any temporary use of short-term debt is already taken into consideration in the AFUDC  
20 calculations and reflected in the rates. The Cost of Capital proceeding is the regulatory forum  
21 that establishes SDG&E's capital structure and its authorized costs of financing. SDG&E  
22 manages its capital structure over the long-term towards these Commission-authorized targets.  
23 An offsetting component to capital expenditures prior to being recorded to plant-in-service is  
24 contributions in aid of construction (CIAC). CIAC are non-refundable contributions collected  
25 from utility customers in the form of money – or its equivalent – toward the construction of  
26 plant, such as customer-requested relocations. CIAC amounts collected or received are a direct  
27 reduction of fully-loaded (*i.e.*, including overhead costs) capital expenditures (if any) prior to  
28 being added to rate base.

#### IV. ELECTRIC RATE BASE SUMMARY

Table SDGE-RCG-2 below presents SDG&E's total Electric weighted average rate base.

Table SDGE-RCG-2

San Diego Gas and Electric Company  
WEIGHTED AVERAGE DEPRECIATED RATE BASE  
Electric  
(Thousands of Dollars)

Line No.	Account Description	Recorded Year 2016	Estimated Year		Test Year 2019
			2017	2018	
<i>Fixed Capital</i>					
1	Plant In Service	\$ 7,994,702	\$ 8,494,996	\$ 9,129,794	\$ 10,206,367
2	Total Fixed Capital	\$ 7,994,702	\$ 8,494,996	\$ 9,129,794	\$ 10,206,367
<i>Working Capital</i>					
3	Materials & Supplies	\$ 98,360	\$ 105,869	\$ 108,555	\$ 111,341
4	Working Cash*	92,137	95,362	98,699	144,379
5	Total Working Capital	\$ 190,497	\$ 201,231	\$ 207,255	\$ 255,720
<i>Other Deductions</i>					
6	Repair Deductions Rate Base Adjustment (2016 - 2042) <sup>1</sup>	\$ (54,952)	\$ (52,838)	\$ (50,725)	\$ (48,611)
7	Customer Advances For Construction	(34,041)	(35,366)	(33,343)	(33,343)
8	Total Other	\$ (88,992)	\$ (88,204)	\$ (84,068)	\$ (81,954)
<i>Deductions For Reserves</i>					
9	Accumulated Depreciation Reserve	\$ 3,211,053	\$ 3,418,067	\$ 3,637,518	\$ 3,868,485
10	Accumulated Amortization Reserve	253,884	307,888	371,070	436,829
11	Accumulated Deferred Taxes	609,831	635,868	698,267	771,103
12	Total Deductions For Reserves	\$ 4,074,768	\$ 4,361,823	\$ 4,706,855	\$ 5,076,417
13	Weighted Average Depreciated Rate Base	\$ 4,021,439	\$ 4,246,200	\$ 4,546,126	\$ 5,303,716

<sup>1</sup> D.16-06-054, p. 192

\*2016 to 2018 Working Cash based on TY 2016 GRC Decision.

The development of each component of Electric rate base is discussed below.

## A. Fixed Capital – Electric Plant-In-Service

Table SDGE-RCG-3

Fixed Capital - Electric  
(Thousands of Nominal Dollars)

Line No.	Account Description	Recorded Year 2016	Estimated Year 2017	Estimated Year 2018	Test Year 2019
<i>Fixed Capital</i>					
1	Plant In Service	\$ 7,994,702	\$ 8,494,996	\$ 9,129,794	\$ 10,206,367
2	Total Fixed Capital	\$ 7,994,702	\$ 8,494,996	\$ 9,129,794	\$ 10,206,367

Plant-in-service represents gross fixed assets used in utility operations with an expected economic and physical life greater than one year from the date placed in service. Electric plant-in-service is comprised of Distribution Plant, Reclassified Transmission Plant to Distribution, Allocated Common Plant to Distribution, Allocated Electric General Plant to Distribution, and Non-Nuclear Generation.

Electric plant-in-service was developed in accordance with the definitions prescribed in SDG&E's FERC Transmission Owner Tariff filing,<sup>7</sup> in which FERC defined and approved the methodology by which SDG&E would unbundle its electric department. In order to fully assign SDG&E's plant to the appropriate departmental functions, reclassification of specific plant was made across traditional FERC functional categories. For example, SDG&E redefined certain "transmission" plant as distribution and some "distribution" plant as transmission in accordance with the FERC Transmission Access filing, and consistent with Commission filings since SDG&E's 1999 Cost of Service Application (A.) 98-01-014.<sup>8</sup> In this GRC TY 2019 filing, SDG&E proposes using the labor ratio allocation method to allocate Common Plant between Electric Transmission, Electric Distribution, and Gas, as well as allocate Electric General Plant assets between Electric Transmission and Electric Distribution, as sponsored in the testimony of the Shared Services & Shared Assets Billing, Segmentation, & Capital Reassignments witness James Vanderhye (Exhibit SCG-34/SDG&E-32).

As shown in Table SDGE-RCG-3 above, the recorded year 2016 weighted average plant-in-service for Electric Distribution and Generation is \$8.0 billion. This amount includes \$6.1 billion in Electric Plant (including redefined amounts as described above), \$278.0 million in

<sup>7</sup> FERC Docket No. ER97-2364, SDG&E FERC Transmission Owner Tariff (March 31, 1997).

<sup>8</sup> Please see my work papers for supporting details.

1 Electric General Plant allocated to Electric Distribution, \$618.4 million in Common Plant  
2 allocated to Electric Distribution, and \$1.0 billion in Generation, as shown in my work papers.  
3 The recorded year 2016 weighted average plant-in-service for Nuclear is zero.

4 The TY 2019 weighted average plant balance for Electric includes Electric Distribution,  
5 Electric General, and Common allocated to Electric and Generation and is based upon recorded  
6 plant data for 2016 and forecasted additions and retirements for 2017, 2018, and 2019. The  
7 weighted average plant balance for TY 2019 for Electric Distribution and Generation is \$10.2  
8 billion. This includes \$7.5 billion in Distribution Plant (including redefined amounts), \$333.5  
9 million in Electric General Plant applicable to Electric Distribution, \$958.6 million in Common  
10 Plant applicable to Electric Distribution, and \$1.4 billion in Generation, as shown in my work  
11 papers.

12 Forecasted Electric Generation, Distribution and General direct capital expenditures,  
13 including an allocation of Common Plant, totaled \$2.5 billion for years 2017 to 2019. As  
14 mentioned in Section III.B above, specific witnesses provide testimony regarding capital  
15 expenditures related to their organizations, as well as supporting documentation in their  
16 respective work papers.

17 For blanket or routine projects, annual capital additions were forecast based on capital  
18 expenditures and historical average work order lives provided by organizational budget planners.  
19 For individual non-routine projects, capital additions were determined by the organization budget  
20 planners based on projected in-service dates. Capital expenditures are escalated and fully loaded  
21 with overheads by project by capital witness in the RO Model. The escalation factors applied are  
22 sponsored in the Cost Escalation testimony of Scott Wilder (Exhibit SDG&E-39). The capital  
23 overhead pool amounts for local engineering, department overheads, and contract administration  
24 are sponsored in the Electric Distribution – Capital testimony of Alan Colton (Exhibit SDG&E-  
25 14). For all remaining overheads assigned to capital such as pension and benefits, workers  
26 compensation, administrative and general, etc., the costs are sponsored by various witnesses and  
27 forecasted in cost centers as directed in SDG&E's 2008 GRC Decision.<sup>9</sup> The cost center  
28 expenses have been mapped to FERC accounts as explained in the Summary of Earnings  
29 testimony of Khai Nguyen (Exhibit SDG&E-42), while the factors that are used to produce  
30 operations and maintenance (O&M) to capital reassignment rates are sponsored in the Shared

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<sup>9</sup> D.08-07-046 at 106, Ordering Paragraph 22.

Services & Shared Assets Billing, Segmentation, & Capital Reassignments testimony of James Vanderhye (Exhibit SCG-34/SDG&E-32).

Finally, retirements for 2017 through 2019 for all plant accounts were forecasted based on a five-year retirement history from 2012 through 2016. The use of five years of historical data is consistent with and in line with the currently adopted methodology used by capital and O&M witnesses in their forecasts as well as with prior SDG&E rate case proceedings before this Commission.

## **B. Working Capital - Electric**

Table SDGE-RCG-4

Working Capital - Electric  
(Thousands of Nominal Dollars)

Line No.	Account Description	Recorded Year 2016	Estimated Year 20172018		Test Year 2019
Working Capital					
1	Materials & Supplies	\$ 98,360	\$ 105,869	\$ 108,555	\$ 111,341
2	Working Cash*	92,137	95,362	98,699	144,379
3	Total Working Capital	\$ 190,497	\$ 201,231	\$ 207,255	\$ 255,720

\*2016 to 2018 Working Cash based on TY 2016 GRC Decision.

### **1. Materials and Supplies**

Materials and Supplies (M&S) represents the cost of inventory materials purchased for construction, operation, maintenance, and contract work. M&S include items which are directly assignable to Electric Generation, Nuclear, and Distribution, as well as an allocated portion of General and Common consistent with the labor ratio allocation methodology referred to in Section IV.A above. Although SDG&E does not anticipate significant changes from its current inventory levels for operational needs, the future costs of M&S are assumed to increase at the projected rate of capital inflation. As such, the estimated years 2017 (\$105.9 million) and 2018 (\$108.6 million), and TY 2019 (\$111.3 million) are calculated using the December 2016 ending balance of \$104.6 million and applying the cost escalation index for capital inflation, which is sponsored in the testimony of Scott Wilder (Exhibit SDG&E-39). Please see supporting my work papers for the detailed computation.

## 2. Working Cash

Working Cash represents the cash requirement resulting from a lead-lag study and operational cash requirements contributed by investors. Working cash is included in rate base to compensate our investors for the funds advanced to operate the business. These funds are used to pay operating expenses in advance of receiving customer revenues and for day-to-day operational working fund requirements. For TY 2019, SDG&E proposes electric working cash forecast of \$144.4 million. The working cash study is sponsored in the testimony of Steve Dais (Exhibit SDG&E-36).

## C. Other Deductions

Table SDGE-RCG-5

Other Deductions - Electric  
(Thousands of Nominal Dollars)

Line		Recorded	Estimated Year		Test
No.	Account Description	Year	2017	2018	Year
		2016			2019
Other Deductions					
1	Repair Deductions Rate Base Adjustment (2016 - 2042) <sup>1</sup>	\$ (54,952)	\$ (52,838)	\$ (50,725)	\$ (48,611)
2	Customer Advances For Construction	(34,041)	(35,366)	(33,343)	(33,343)
3	Total Other	\$ (88,992)	\$ (88,204)	\$ (84,068)	\$ (81,954)

<sup>1</sup> D.16-06-054, p. 192

## 1. Repairs Deduction Rate Base Adjustment (2016 – 2042)

The repairs deduction rate base adjustment represents the reduction to rate base as ordered in D.16-06-054.<sup>10</sup>

## 2. Customer Advances for Construction

Customer advances for construction (CAC) represents refundable cash advances for construction paid by third parties and/or customers who have requested the installation of electric distribution facilities for new business. These cash advances are subject to refund when new customers and appliances are added to these lines as mandated by the Commission and described in SDG&E Tariff Rules 15 and 16. SDG&E anticipates a decrease of \$0.7 million in the average balance of electric CAC for new construction deposits and refunds in TY 2019 as compared to recorded year 2016.

<sup>10</sup> D.16-06-054 at 192. The rate base component reduction is identified in D.16-06-054, Appendix B at 3.

The forecast data begins with recorded December 2016 month-end balances, and then incorporates estimated activity for routine projects. Routine projects are projected based on non-farm employment forecasts for San Diego County and estimated activity for planned major projects based on construction forecasts for individual projects. The CAC balances include the receipts of cash advances, which are recorded as increases, and refunds and/or forfeitures of cash advances, which are recorded as decreases. Please see supporting my work papers for the detailed computation.

#### **D. Deductions for Reserves - Electric**

Table SDGE-RCG-6

Deductions For Reserves - Electric  
(Thousands of Nominal Dollars)

Line No.	Account Description	Recorded Year 2016	Estimated Year 2017	Estimated Year 2018	Test Year 2019
<i>Deductions For Reserves</i>					
1	Accumulated Depreciation Reserve	\$ 3,211,053	\$ 3,418,067	\$ 3,637,518	\$ 3,868,485
2	Accumulated Amortization Reserve	253,884	307,888	371,070	436,829
3	Accumulated Deferred Taxes	609,831	635,868	698,267	771,103
4	Total Deductions For Reserves	\$ 4,074,768	\$ 4,361,823	\$ 4,706,855	\$ 5,076,417

#### **1. Accumulated Depreciation Reserve**

The accumulated depreciation reserve represents a weighted average accumulated book reserve which includes a summation of depreciation accrual charges, plant retirements, net salvage, and other adjustments or transfers as prescribed by FERC's USofA. The amount is based on the recorded depreciation reserve as of December 31, 2016, and forecasted net activity (depreciation, retirements, and net salvage) of \$678.5 million for years 2017 through 2019. Depreciation is sponsored in the testimony of Matthew Vanderbilt (Exhibit SDG&E-34).

#### **2. Accumulated Amortization Reserve**

Accumulated amortization reserve represents the weighted average accumulation of the provision and salvage costs less retirement and removal costs for land rights, software, and limited-term investments. The amount is based on the recorded amortization reserve as of December 31, 2016, and forecasted net activity (amortization, retirements, and net salvage) of \$192.3 million for years 2017 through 2019. Amortization is sponsored in the Depreciation testimony of Matthew Vanderbilt (Exhibit SDG&E-34).



1                                   **3.       Accumulated Deferred Taxes**

2           Accumulated deferred taxes arises from accelerated tax over book depreciation and the  
3 tax normalization requirements enacted pursuant to the Economic Tax Recovery Act of 1981  
4 (ERTA). The tax normalization requirements provide that the federal tax basis of 1981 and  
5 future years' plant additions be depreciated for ratemaking tax purposes using book lives on a  
6 straight-line remaining life basis. The tax effect of the difference between this normalized  
7 depreciation method and the accelerated depreciation methods allowed for federal income tax  
8 return purposes is treated as a reduction to rate base, thereby reflecting this tax treatment as a  
9 benefit for the ratepayer.

10           SDG&E has computed deferred tax balances in accordance with the normalization  
11 requirements of Internal Revenue Code § 168(i)(9) and Treasury Regulation § 1.167(1)-  
12 (h)(6)(ii). The forecasted deferred tax balance that reduces rate base is the weighted average of  
13 the beginning of the period balance and the end of the period balance (derived using a pro rata  
14 portion of the projected change during the period). The derivation of the deferred tax balance is  
15 sponsored in the testimony of the Taxes witness Ragan Reeves (Exhibit SDG&E-35).

16 **V.       GAS RATE BASE SUMMARY**

17           Table SDGE-RCG-7 below presents SDG&E's total Gas weighted average rate base.

18                                   [Remainder of page intentionally left blank]

Table SDGE-RCG-7

San Diego Gas and Electric Company  
WEIGHTED AVERAGE DEPRECIATED RATE BASE  
Gas  
(Thousands of Dollars)

Line No.	Account Description	Recorded Year 2016	Estimated Year 2017	Estimated Year 2018	Test Year 2019
<i>Fixed Capital</i>					
1	Plant In Service	\$ 1,810,744	\$ 1,981,628	\$ 2,153,206	\$ 2,361,232
2	Total Fixed Capital	\$ 1,810,744	\$ 1,981,628	\$ 2,153,206	\$ 2,361,232
<i>Working Capital</i>					
3	Fuel in Storage	\$ 285	\$ 285	\$ 285	\$ 285
4	Materials & Supplies	3,311	3,330	3,444	3,550
5	Working Cash*	8,575	8,875	9,186	30,739
6	Total Working Capital	\$ 12,171	\$ 12,490	\$ 12,914	\$ 34,573
<i>Other Deductions</i>					
7	Repair Deductions Rate Base Adjustment (2016 - 2042) <sup>1</sup>	\$ -	\$ -	\$ -	\$ -
8	Customer Advances For Construction	\$ (2,340)	\$ (2,225)	\$ (2,079)	\$ (2,079)
9	Total Other	\$ (2,340)	\$ (2,225)	\$ (2,079)	\$ (2,079)
<i>Deductions For Reserves</i>					
10	Accumulated Depreciation Reserve	\$ 994,289	\$ 1,033,107	\$ 1,073,049	\$ 1,112,955
11	Accumulated Amortization Reserve	64,967	78,969	94,057	111,696
12	Accumulated Deferred Taxes	104,148	116,614	140,206	157,191
13	Total Deductions For Reserves	\$ 1,163,403	\$ 1,228,691	\$ 1,307,312	\$ 1,381,842
14	Weighted Average Depreciated Rate Base	\$ 657,171	\$ 763,203	\$ 856,730	\$ 1,011,885

<sup>1</sup> D.16-06-054, p. 192

\*2016 to 2018 Working Cash based on TY 2016 GRC Decision.

The development of each component of Gas rate base is discussed below.

**A. Fixed Capital - Gas Plant-In-Service**

Table SDGE-RCG-8

Fixed Capital - Gas  
(Thousands of Nominal Dollars)

Line No.	Account Description	Recorded Year 2016	Estimated Year 2017	Estimated Year 2018	Test Year 2019
<i>Fixed Capital</i>					
1	Plant In Service	\$ 1,810,744	\$ 1,981,628	\$ 2,153,206	\$ 2,361,232
2	Total Fixed Capital	\$ 1,810,744	\$ 1,981,628	\$ 2,153,206	\$ 2,361,232

1 As shown in Table SDGE-RCG-8 above, the recorded year 2016 weighted average gas  
2 plant-in-service is approximately \$1.8 billion. This includes \$1.6 billion in Gas Plant and \$243.8  
3 million in Common Plant allocated to Gas Plant, as shown in my work papers.

4 The TY 2019 weighted average plant balance for Gas, including the Common Plant  
5 associated with Gas, is based upon recorded plant data for 2016 and forecasted additions and  
6 retirements for 2017, 2018 and 2019. The weighted average plant balance for TY 2019,  
7 including Common Plant applicable to Gas is \$2.4 billion. The weighted average plant balance  
8 for TY 2019 is composed of \$2.0 billion in Gas Plant and \$395.3 million in Common Plant  
9 applicable to Gas, as shown in my work papers.

10 Forecasted Gas and Common direct capital expenditures totaled \$603.7 million for years  
11 2017 to 2019. As mentioned in Section III.B above, specific witnesses will provide testimonies  
12 regarding capital expenditures related to their organizations, as well as supporting documentation  
13 in their respective work papers.

14 For blanket or routine projects, annual capital additions were forecasted based on capital  
15 expenditures and historical average work order lives provided by organizational budget planners.  
16 For individual non-routine projects, plant additions were determined by the organization budget  
17 planners based on projected in-service dates. Capital expenditures are escalated and fully loaded  
18 with overheads by project by capital witnesses in the RO Model. The escalation factors applied  
19 are sponsored in the Escalation testimony of Scott Wilder (Exhibit SDG&E-39). The capital  
20 overhead pool amounts, such as engineering and department overheads, are sponsored in the  
21 Electric Distribution – Capital and Gas Distribution testimonies of Alan Colton (Exhibit  
22 SDG&E-14) and Gina Orozco-Mejia (Exhibit SDG&E-04), respectively. For all remaining  
23 overheads assigned to capital such as pension and benefits, workers compensation,  
24 administrative and general, etc., the costs are sponsored by various witnesses and forecasted in  
25 cost centers as directed in SDG&E's 2008 GRC Decision.<sup>11</sup> The cost center expenses have been  
26 mapped to FERC accounts as explained in the Summary of Earnings testimony of Khai Nguyen  
27 (Exhibit SDG&E-42), while the factors that are used to produce O&M to capital reassignments  
28 are sponsored in the Shared Services & Shared Assets Billing, Segmentation, & Capital  
29 Reassignments testimony of James Vanderhye (Exhibit SCG-34/SDG&E-32).

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<sup>11</sup> D.08-07-046 at 106, Ordering Paragraph 22.

Finally, retirements for 2017 through 2019 for all plant accounts were forecasted based on a five-year retirement history from 2012 through 2016. The use of five years of historical data is consistent with and in line with currently adopted methodology used by capital and O&M witnesses in their forecasts as well as with prior SDG&E rate case proceedings before this Commission.

## **B. Working Capital - Gas**

Table SDGE-RCG-9

Working Capital - Gas  
(Thousands of Nominal Dollars)

Line No.	Account Description	Recorded Year 2016	Estimated Year 2017	Estimated Year 2018	Test Year 2019
<i>Working Capital</i>					
1	Fuel in Storage	\$ 285	\$ 285	\$ 285	\$ 285
2	Materials & Supplies	3,311	3,330	3,444	3,550
3	Working Cash*	8,575	8,875	9,186	30,739
4	Total Working Capital	\$ 12,171	\$ 12,490	\$ 12,914	\$ 34,573

\*2016 to 2018 Working Cash based on TY 2016 GRC Decision.

### **1. Fuel in Storage**

Gas fuel in storage consists of gas line pack. Annually, the line pack values are computed based on line pack volumes in therms, valued at the current weighted average cost of gas (WACOG). The monthly recorded December 2015 through December 2016 line pack values were used to develop the weighted average amount included in Gas rate base, with no forecasted changes in value for 2017 to 2019, as shown in my work papers.

### **2. Materials and Supplies**

M&S included in rate base are those items which are directly assignable to gas plus an allocated portion of Common M&S, consistent with the labor ratio allocation methodology referred to in Section V.A. above. While SDG&E does not anticipate significant changes from its current inventory levels for operational needs, the future costs of M&S are assumed to increase at the projected rate of capital inflation. As such, the estimated years 2017 (\$3.3 million) and 2018 (\$3.4 million), and TY 2019 (\$3.6 million) are calculated using the December 2016 ending balance of \$3.3 million and then applying an annual factor for capital inflation which is sponsored in the testimony of Escalation witness Scott Wilder (Exhibit SDG&E-39). Please see supporting my work papers for the detailed computation.

### 3. Working Cash

Working Cash represents the cash requirement resulting from a lead-lag study and operational cash requirements contributed by investors. Working cash is included in rate base to compensate our investors for the funds advanced to operate the business. These funds are used to pay operating expenses in advance of receiving customer revenues and for day-to-day operational working fund requirements. For TY 2019, SDG&E proposes a gas working cash forecast of \$30.7 million. The working cash study is sponsored in the testimony of Steve Dais (Exhibit SDG&E-36).

### C. Other Deductions

Table SDGE-RCG-10

Other Deductions - Gas  
(Thousands of Nominal Dollars)

Line No.	Account Description	Recorded Year 2016	Estimated Year 2017	Estimated Year 2018	Test Year 2019
<i>Other Deductions</i>					
1	Repair Deductions Rate Base Adjustment (2016 - 2042) <sup>1</sup>	\$ -	\$ -	\$ -	\$ -
2	Customer Advances For Construction	(2,340)	(2,225)	(2,079)	(2,079)
3	Total Other	\$ (2,340)	\$ (2,225)	\$ (2,079)	\$ (2,079)

<sup>1</sup> D.16-06-054, p. 192

### 1. Repairs Deduction Rate Base Adjustment (2016-2042)

The repairs deduction rate base adjustment represents the reduction to rate base as ordered in D.16-06-054.<sup>12</sup>

### 2. Customer Advances for Construction

CAC represents refundable cash advances for construction paid by third parties and/or customers who have requested the installation of new business mains and services. These cash advances are subject to refund when new customers and appliances are added to these lines as mandated by the Commission and described in SDG&E Tariff Rules 15 and 16. SDG&E anticipates a decrease of \$0.3 million in the average balance of gas CAC for new construction deposits and refunds in TY 2019 as compared to recorded year 2016.

<sup>12</sup> D.16-06-054 at 192. The rate base component reduction is identified in D.16-06-054, Appendix B at 3.

The forecast data begins with recorded December 2016 month-end balances, and then incorporates estimated activity for routine projects. Routine projects are projected based on non-farm employment forecasts for San Diego County and estimated activity for planned major projects based on construction forecasts for individual projects. The CAC balances include the receipts of cash advances, which are recorded as increases, and refunds and/or forfeitures of cash advances, which are recorded as decreases. Please see supporting my work papers for the detailed computation.

## **D. Deductions for Reserves - Gas**

Table SDGE-RCG-11

Deductions For Reserves - Gas  
(Thousands of Nominal Dollars)

Line No.	Account Description	Recorded Year 2016	Estimated Year 2017	Estimated Year 2018	Test Year 2019
<i>Deductions For Reserves</i>					
1	Accumulated Depreciation Reserve	\$ 994,289	\$ 1,033,107	\$ 1,073,049	\$ 1,112,955
2	Accumulated Amortization Reserve	64,967	78,969	94,057	111,696
3	Accumulated Deferred Taxes	104,148	116,614	140,206	157,191
4	<b>Total Deductions For Reserves</b>	<b>\$ 1,163,403</b>	<b>\$ 1,228,691</b>	<b>\$ 1,307,312</b>	<b>\$ 1,381,842</b>

### **1. Accumulated Depreciation Reserve**

The accumulated depreciation reserve represents a weighted average accumulated book reserve which includes a summation of depreciation accrual charges, plant retirements, net salvage, and other adjustments or transfers as prescribed by FERC's USofA. The amount is based on the recorded depreciation reserve as of December 31, 2016, and forecasted net activity (depreciation, retirements, and net salvage) of \$117.7 million for years 2017 through 2019. Depreciation is sponsored in the testimony of Matthew Vanderbilt (Exhibit SDG&E-34).

### **2. Accumulated Amortization Reserve**

Accumulated amortization reserve represents weighted average accumulated of the provision and salvage costs less retirement and removal costs for land rights, software, and limited-term investments. The amount is based on the recorded amortization reserve as of December 31, 2016, and forecasted net activity (amortization, retirements and net salvage) of \$48.8 million for years 2017 through 2019. Amortization is sponsored in the Depreciation testimony of Matthew Vanderbilt (Exhibit SDG&E-34).

1                   **3.       Accumulated Deferred Taxes**

2           Accumulated deferred taxes arises from accelerated tax over book depreciation and the  
3 tax normalization requirements enacted pursuant to ERTA of 1981. The tax normalization  
4 requirements provide that the federal tax basis of 1981 and future years' plant additions be  
5 depreciated for ratemaking tax purposes using book lives on a straight-line remaining life basis.  
6 The tax effect of the difference between this normalized depreciation method and the accelerated  
7 depreciation methods allowed for federal income tax return purposes is treated as a reduction to  
8 rate base, thereby reflecting this tax treatment as a benefit for the ratepayer.

9           SDG&E has computed deferred tax balances in accordance with the normalization  
10 requirements of Internal Revenue Code § 168(i)(9) and Treasury Regulation § 1.167(1)-  
11 (h)(6)(ii). The forecasted deferred tax balance that reduces rate base is the weighted average of  
12 the beginning of the period balance and the end of the period balance (derived using a pro rata  
13 portion of the projected change during the period). The derivation of the deferred tax balance is  
14 sponsored in the testimony of the Taxes witness Ragan Reeves (Exhibit SDG&E-35).

15           **VI.     SHARED ASSET RATE BASE**

16           In April 2002, as part of the Commission-approved integration of SDG&E and SoCalGas  
17 (*see* D.01-09-056), certain utility capital assets were deemed to be shared by both utilities. These  
18 shared assets included computer software, computer equipment, structures and improvements,  
19 land, and telecommunication equipment. In order to recognize that ratepayers across both  
20 utilities are appropriately billed for the use of these assets, a process for inter-company billing of  
21 the associated revenue requirements was developed.

22           The rate base calculation for both the shared assets that are recorded in SDG&E plant  
23 balances, and future forecasted shared assets is computed in accordance with the same  
24 Commission-approved methodologies as described in Section III above. The Shared Assets  
25 witness James Vanderhye (Exhibit SCG-34/SDG&E-32) provides the details for SDG&E's  
26 shared assets.

27           **VII.    CONCLUSION**

28           SDG&E requests that the Commission adopt all components of Weighted Average Rate  
29 Base, as summarized in Table SDGE-RCG-1 for TY 2019, as reasonable.

30           This concludes my prepared direct testimony.

1 **VIII. WITNESS QUALIFICATIONS**

2 My name is R. Craig Gentes. My business address is 8335 Century Park Court, San  
3 Diego, California, 92123. I am employed by SDG&E as the Director of Accounting Operations  
4 within the Controller's organization.

5 In 2017, I assumed my current role of Director of Accounting Operations. I am  
6 responsible for the Asset & Project Accounting, Accounts Payable and Financial Systems Client  
7 Support functions for SDG&E.

8 Previously, I have served as Director of Utility Accounting, responsible for the Financial  
9 Accounting, Regulatory Reporting, and Bank Reconciliation and Escheatment functions for both  
10 SDG&E and SoCalGas; Director of Accounting Operations, responsible for the Cost  
11 Accounting, the Affiliate Billing and Costing and Sundry Services functions for both SDG&E  
12 and SoCalGas; Director of Compliance, responsible for the CPUC and FERC Affiliate  
13 Compliance activities, the Accounts Payable function, and Financial Policies and Controls;  
14 Manager of Financial Policies and Controls, responsible for the implementation of the  
15 compliance process to meet the requirements of the Sarbanes-Oxley Act; and Financial  
16 Accounting Manager, primarily responsible for the monthly closing of the financial statements,  
17 Generally Accepted Accounting Principles (GAAP) accounting issues and research, and  
18 participating in Securities Exchange Commission (SEC) and CPUC financial reporting issues  
19 and requirements.

20 Prior to joining SDG&E, I worked for Deloitte Haskins & Sells, now Deloitte & Touche,  
21 in the auditing department. I obtained my California Certified Public Accountant (CPA) license  
22 in 1984, and that license is currently in active status.

23 I received a Bachelor of Science degree in Business Administration with a major in  
24 Accounting from the University of Nebraska-Lincoln in 1982.

25 I have previously testified before the CPUC.



## **APPENDIX A**

### **GLOSSARY OF TERMS**

AFUDC: Allowance for Funds Used During Construction  
CAC: Customer Advances for Construction  
CIAC: Contribution in Aid of Construction  
CFR: Code of Federal Regulations  
CPC: Capital Planning Committee  
CPUC: California Public Utilities Commission  
CWIP: Construction Work-in-Progress  
EFC: Executive Finance Committee  
ERTA: Economic Tax Recovery Act of 1981  
FCC: Functional Capital Committees  
FERC: Federal Energy Regulatory Commission  
GRC: General Rate Case  
IT: Information Technology  
ITCC: Income Tax Component of Contribution in Aid of Construction  
M&S: Materials & Supplies  
NIBCWIP: Non-Interest Bearing Construction Work-in-Progress  
O&M: Operations and Maintenance  
RAMP: Risk Assessment and Mitigation Phase  
RO: Results of Operations  
ROE: Return on Equity  
ROR: Rate of Return  
SDG&E: San Diego Gas & Electric Company  
SCG/SoCalGas: Southern California Gas Company  
TY: Test Year  
USofA: Uniform System of Accounts  
WACOG: Weighted Average Cost of Gas

### SDG&E 2019 GRC Testimony Revision Log – December 2017

Exhibit	Witness	Page	Line or Table	Revision Detail
SDG&E-33	R. Craig Gentes	RCG-1	8	Deleted former footnote 1 which read: “A late reduction in SDG&E’s proposed TY 2019 revenue requirement is reflected in the Summary of Earnings testimony of Khai Nguyen (Exhibit SDG&E-42). Due to the timing of the TY 2019 revenue requirement change, SDG&E has updated only certain witness testimonies to reflect this reduction prior to filing its application. SDG&E’s rate base testimony proposal has not yet been updated to reflect this reduction. The rate base revenue requirement reduction will be provided and updated in the testimony and workpapers at SDG&E’s earliest opportunity.”
SDG&E-33	R. Craig Gentes	RCG-2	Table RCG-1	Revised table
SDG&E-33	R. Craig Gentes	RCG-5	27 n.7	Change 7.79% to 7.75%; replace “D.12-12-034 (TY 2013 Cost of Capital for Major Utilities) at 52, Ordering Paragraph 2” with “Advice Letter 3120-E/2611-G effective as of January 1, 2018”
SDG&E-33	R. Craig Gentes	RCG-5 to RCG-6	28 to 2	Deleted the sentence, which stated: “Due to timing for this filing, SDG&E is using a forecasted ROR, which will be trued up at a future date to the ROR submitted in Advice Letter 3160-E/2611-G on September 29, 2017.”
SDG&E-33	R. Craig Gentes	RCG-6	n.8	Deleted former footnote 8, which stated: “In D.17-07-005 (modifying D.12-12-034 and D.13-03-015), the Commission reduced SDG&E’s Return on Equity to 10.20% (from 10.30%), and directed SDG&E to submit their revised embedded cost of long-term debt and the costs of any preferred stock issued since January 3, 2013 in an advice letter by September 29, 2017. SDG&E filed Advice Letter 3120-E/2611-G on September 29, 2017, which proposed a new forecasted ROR based on the new Return on Equity effective January 1, 2018. SDG&E will update this forecasted ROR at the earliest opportunity after the Commission approves a final rate.”
SDG&E-33	R. Craig Gentes	RCG-7	Table RCG-2	Revised table
SDG&E-33	R. Craig Gentes	RCG-8	Table RCG-3	Revised table
SDG&E-33	R. Craig Gentes	RCG-10	Table RCG-4	Revised table

<b>Exhibit</b>	<b>Witness</b>	<b>Page</b>	<b>Line or Table</b>	<b>Revision Detail</b>
SDG&E-33	R. Craig Gentes	RCG-11	7	Replaced “\$147.2” million with “\$144.4” million
SDG&E-33	R. Craig Gentes	RCG-12	Table RCG-6	Revised table
SDG&E-33	R. Craig Gentes	RCG-12	15	Replaced “\$678.6” million with “\$678.5” million
SDG&E-33	R. Craig Gentes	RCG-14	Table RCG-7	Revised table
SDG&E-33	R. Craig Gentes	RCG-14	Table RCG-8	Revised table
SDG&E-33	R. Craig Gentes	RCG-15	10	Replaced “\$604.3” million with “\$603.7” million
SDG&E-33	R. Craig Gentes	RCG-16	Table RCG-9	Revised table
SDG&E-33	R. Craig Gentes	RCG-17	7	Replaced “\$30.8” million with “\$30.7” million
SDG&E-33	R. Craig Gentes	RCG-18	Table RCG-11	Revised table