Company: San Diego Gas & Electric Company (U 902 M)
Proceeding: 2016 General Rate Case
Application: A.14-11-003
Exhibit: SDG&E-27-R

REVISED

SDG&E

DIRECT TESTIMONY OF JESSE S. ARAGON

RATE BASE

March 2015

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Doc # 295514

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SDG&E DIRECT TESTIMONY OF JESSE S. ARAGON

RATE BASE

I. PURPOSE

This testimony presents San Diego Gas & Electric Company's ("SDG&E's") weighted average rate base for Electric and Gas operations for recorded year 2013, estimated years 2014 and 2015, and Test Year 2016 ("TY2016"). In addition, this testimony describes the development of rate base and its components including the various methodologies used to derive the TY2016 rate base of $4.6 billion for Electric and $713 million for Gas.

II. SUMMARY OF REQUEST

Table SDGE-JSA-1 presents SDG&E's total weighted average rate base request for combined Electric and Gas operations for TY2016.

Table SDGE-JSA-1

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

Line No.	Account Description	Recorded Year 2013	Estimated Year 2014	Estimated Year 2015	Test Year 2016
	Fixed Capital				
1	Plant In Service	$ 8,340,969	$ 8,876,294	$ 9,522,084	$ 10,147,728
2	Total Fixed Capital	$ 8,340,969	$ 8,876,294	$ 9,522,084	$ 10,147,728
	Working Capital				
3	Fuel in Storage	$ 282	$ 282	$ 282	$ 282
4	Materials & Supplies	62,775	91,375	107,716	109,320
5	Working Cash*	0	0	0	136,056
6	Total Working Capital	$ 63,057	$ 91,656	$ 107,997	$ 245,657
	Other Deductions				
7	Customer Advances For Construction	$ (16,425)	$ (26,876)	$ (28,378)	$ (28,375)
8	Total Other	$ (16,425)	$ (26,876)	$ (28,378)	$ (28,375)
	Deductions For Reserves				
9	Accumulated Depreciation Reserve	$ 3,558,116	$ 3,748,637	$ 3,966,353	$ 4,191,344
10	Accumulated Amortization Reserve	166,919	209,912	268,445	335,532
11	Accumulated Deferred Taxes	526,059	500,113	554,478	530,367
12	Total Deductions For Reserves	$ 4,251,094	$ 4,458,661	$ 4,789,276	$ 5,057,243
13	Weighted Average Depreciated Rate Base	$ 4,136,507	$ 4,482,412	$ 4,812,427	$ 5,307,766

*2013 to 2015 Working Cash based on TY 2012 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") approved methodology adopted in prior rate-setting proceedings.

The four major components of rate base include Fixed Capital, Working Capital, Other Deductions, and Deductions for Reserves. This section provides a detailed description of the methodology used to forecast plant-in-service, which is included in Fixed Capital and is the largest component of the weighted average rate base. As with other rate base components, plant-in-service is computed based on original cost and is shown on a weighted average basis. To determine the plant balances for the estimated years 2014, 2015 and TY2016, capital expenditure information was provided through the annual planning process as described below.

A. Capital Planning Process

This section describes the capital planning process for GRC-funded capital that is non-balanced. The capital planning process leads to organizational budgets. For non-balanced base capital, SDG&E Executive Finance Committee ("EFC") established a total annual capital expenditure target consistent with our authorized GRC funding for that period. From this total allocation, funding is prioritized based on risk informed priorities and input from operations.

- **Step 1** – Initial capital allocations begin with inputs from Functional Capital Committees ("FCCs") that are organized by the nature and type of capital investment or function: Electric Distribution, Electric Generation, Electric Transmission[1], Gas Operations, Customer Services, Information Technology Facilities/Other. These teams and subject matter experts perform a high level assessment of the capital requirements for serving customers to ensure that infrastructure is maintained and developed to provide safe, reliable service with the highest risk mitigation at the

[1] Electric Transmission falls within the jurisdiction of the Federal Energy Regulatory Commission ("FERC"), and is therefore not included in this General Rate Case ("GRC").

lowest attainable costs. Each FCC elicits broad input for developing each function's capital plan and formulates a prioritized grouping of annual spending requirements.

- **Step 2** - The capital requirements as identified by the FCCs are provided to the Capital Planning Committee ("CPC"), a cross-functional team representing each operational area with capital requests. The CPC reviews the FCC submissions, cross-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. 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[2] and the Sempra Energy Utilities' approval and commitment policy.

B. Plant-In-Service

Based on the projected capital expenditures and estimated completion dates provided by organizational budget planners, electric distribution, nuclear and non-nuclear generation, and gas plant balances are forecast, including projected plant retirements based on historical experience, as the plant-in-service component of rate base.

[2] 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.

As shown in the Fixed Capital section of the Rate Base Summary in Table SDGE-JSA-1, SDG&E's TY2016 Plant-in-Service is projected to increase, reflecting higher capital expenditures in 2016. The major drivers for the increase in capital expenditure levels are detailed in the testimonies of the respective capital witnesses: Electric Distribution – John Jenkins (Ex. SDG&E-09); Gas Distribution - Frank Ayala (Ex. SDG&E-04); Gas Engineering – Ray Stanford (Ex. SDG&E-06); TIMP and DIMP - Maria Martinez (Ex. SDG&E-07); Information Technology – Stephen Mikovits (Ex. SDG&E-19); Real Estate, Land & Facilities – Jim Seifert (Ex. SDG&E-17); Generation – Carl LaPeter (Ex. SDG&E-11), and Nuclear Generation – Michael DeMarco (Ex. SDG&E-12).

A component of plant-in-service is Allowance for Funds Used During Construction ("AFUDC"). Accruing for AFUDC is a generally accepted regulatory accounting procedure to capitalize the cost of debt and equity funds used to finance capital additions. Consistent with prior SDG&E rate case proceedings before this Commission, including Decision ("D").13-05-010, SDG&E uses its current authorized Rate of Return ("ROR") of 7.79%[3] as a reasonable proxy for estimating AFUDC applied to construction work in progress in the Results of Operations ("RO") model. Historically, SDG&E's use of its authorized ROR for forecasting purposes has reasonably approximated actual AFUDC rates. Other than the authorized ROR, there is no separate forecast of debt and equity in developing AFUDC rates for the GRC period. On an actual basis, SDG&E applies an AFUDC rate that is computed in conformance with the formula prescribed by the FERC Uniform System of Accounts.[4] SDG&E's recorded AFUDC rate is derived by taking its capital structure at the time of the calculations and weighting its actual capital structure by the authorized return on equity ("ROE"), actual costs of debt, and authorized preferred stock costs as adopted by D.12-12-034.

SDG&E's authorized capital structure is comprised of common equity, long-term debt and preferred stock. There is no "authorized" short-term debt component in the authorized capital structure because SDG&E finances its capital investments with long-term debt and equity. This is consistent with prudent financial management where long-lived assets such as plant and equipment are financed with long-term borrowing and equity. Short-term debt,

[3] D.12-12-034 (TY 2013 Cost of Capital for Major Utilities), Ordering Paragraph 2, p. 52.

[4] Title 18, Code of Federal Regulations, Chapter 1, Part 101 & 201, Electric Plant & Gas Plant Instruction 3 (A) 17.

however, is used for temporary fluctuations and needs in the cash flow cycle and is not used for long-term ongoing financing of SDG&E long-lived investments. There may be times when SDG&E temporarily carries balances of short-term debt due to balancing account under-collections and/or fluctuations in timing of cash inflows and cash outflows which warrant using short-term debt. However, if significant amounts of short-term debt are used then it gets factored into the AFUDC calculations to the extent the short-term debt exceeds the allowable regulatory thresholds. As a result, any temporary use of large amounts of short-term debt is already taken into consideration in the AFUDC calculations and reflected in the rates. The Cost of Capital proceeding is the regulatory forum that establishes SDG&E's capital structure and its authorized costs of financing. SDG&E manages its capital structure over the long-term towards these Commission-authorized targets. Please see SDG&E-27-R_JSAragon_Rate Base_CWP.pdf page 119 for further details on the actual AFUDC computations along with supporting documentation of each component of the FERC formula.

An offsetting component to capital expenditures prior to being recorded to plant-in-service is Contributions in Aid of Construction ("CIAC"). CIAC are non-refundable contributions collected from utility customers in the form of money--or its equivalent--toward the construction of plant, such as customer-requested relocations. CIAC amounts collected or received are a direct reduction of fully-loaded (*i.e.* including overhead costs) capital expenditures (if any) prior to being added to rate base.

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IV. ELECTRIC RATE BASE SUMMARY

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

Table SDGE-JSA-2

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

Line No.	Account Description	Recorded Year 2013	Estimated Year 2014	Estimated Year 2015	Test Year 2016
	Fixed Capital				
1	Plant In Service	$ 6,788,798	$ 7,236,953	$ 7,793,802	$ 8,323,824
2	Total Fixed Capital	$ 6,788,798	$ 7,236,953	$ 7,793,802	$ 8,323,824
	Working Capital				
3	Materials & Supplies	$ 59,239	$ 87,760	$ 104,049	$ 105,592
4	Working Cash*	0	0	0	119,813
5	Total Working Capital	$ 59,239	$ 87,760	$ 104,049	$ 225,405
	Other Deductions				
6	Customer Advances For Construction	$ (14,720)	$ (25,264)	$ (26,978)	$ (27,159)
7	Total Other	$ (14,720)	$ (25,264)	$ (26,978)	$ (27,159)
	Deductions For Reserves				
8	Accumulated Depreciation Reserve	$ 2,657,127	$ 2,820,282	$ 3,003,391	$ 3,197,021
9	Accumulated Amortization Reserve	125,429	162,561	211,208	266,911
10	Accumulated Deferred Taxes	445,665	439,181	485,015	463,611
11	Total Deductions For Reserves	$ 3,228,222	$ 3,422,024	$ 3,699,614	$ 3,927,543
12	Weighted Average Depreciated Rate Base	$ 3,605,096	$ 3,877,426	$ 4,171,258	$ 4,594,527

*2013 to 2015 Working Cash based on TY 2012 GRC Decision.

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

A. Fixed Capital – Electric Plant-In-Service

Table SDGE-JSA-3

Fixed Capital - Electric
(Thousands of Nominal Dollars)

Line No.	Account Description	Recorded Year 2013	Estimated Year 2014	Estimated Year 2015	Test Year 2016
	Fixed Capital				
1	Plant In Service	$ 6,788,798	$ 7,236,953	$ 7,793,802	$ 8,323,824
2	Total Fixed Capital	$ 6,788,798	$ 7,236,953	$ 7,793,802	$ 8,323,824

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, Non-nuclear and Nuclear Generation.

Electric Plant-in-Service was developed in accordance with the definitions prescribed in SDG&E's FERC Transmission Owner Tariff filing of March 31, 1997 (Docket No. ER97-2364-000), in which the 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 No. ("A.") 98-01-014. Please see work papers for supporting details. In this GRC TY2016 filing, SDG&E proposes the use of the labor ratio allocation method to allocate Common Plant between Electric Transmission, Electric Distribution and Gas, and Electric General Plant assets between Electric Transmission and Electric Distribution, as sponsored in the testimony of the Segmentation and Re-Assignment Rates witness Jeff Stein (Ex. SDG&E-41).

As shown above, the Recorded Year 2013 Weighted Average Plant-in-Service for Electric Distribution, Generation and Nuclear is $6.8 billion. This amount includes $5.2 billion in Electric Plant (including redefined amounts as described above), $210.4 million in Electric General Plant allocated to Electric Distribution, $433.7 million in Common Plant allocated to Electric Distribution, and $950.8 million in Generation, as shown in work papers. The Recorded Year 2013 Weighted Average Plant-in-Service for Nuclear is zero.

The TY2016 Weighted Average Plant Balance for Electric includes Electric Distribution, Electric General and Common allocated to Electric, Generation and Nuclear and is based upon recorded plant data for 2013 and forecasted additions and retirements for 2014, 2015 and 2016. The Weighted Average Plant Balance for TY2016 for Electric Distribution, Generation and Nuclear is $8.3 billion. This includes $6.5 billion in Distribution Plant (including redefined amounts), $245.0 million in Electric General Plant applicable to Electric Distribution, $607.8

million in Common Plant applicable to Electric Distribution, $1.0 billion in Generation, and $9.0 million in Nuclear Plant, as shown in work papers. The TY2016 Nuclear Weighted Average Plant Balance is comprised of SDG&E's 20% share of capital expenditures for the San Onofre Nuclear Generating Station ("SONGS") from SCE. The level of capital expenditures is based on SCE's currently budgeted amounts for 2014 to 2016, and not at the levels authorized by the Commission in SCE's TY2012 GRC Decision (D.12-11-051). SDG&E will revise its calculation of SONGS weighted average plant balance pursuant to the Commission's eventual decision on SCE's TY2015 GRC proceeding. For further detail please refer to the Generation - SONGS testimony of Michael De Marco (Ex. SDG&E-12).

Forecasted Electric Generation, Nuclear and Distribution and General direct capital expenditures, including an allocation of Common Plant, totaled $1.6 billion for years 2014 to 2016. Specific witnesses provide testimony regarding capital expenditures related to their organizations, as well as supporting documentation in their respective work papers.

For blanket or routine projects, annual capital additions were forecast based on capital expenditures and historical average work order lives provided by organizational budget planners. For individual non-routine projects, capital additions were determined by the organization budget planners based on projected in-service dates. Capital expenditures are escalated and fully loaded with overheads by project by capital witness in the Results of Operations ("RO") Model. The escalation factors applied are sponsored in the Escalation testimony of Scott Wilder (Ex. SDG&E-33). The capital overhead pool amounts for local engineering, department overheads and contract administration are sponsored in the Electric Distribution testimony of John Jenkins (Ex. SDG&E-09). For all remaining overheads assigned to capital such as pension and benefits, workers compensation, administrative and general, etc., the costs are sponsored by various witnesses and forecasted in cost centers as directed in SDG&E's 2008 GRC Decision (*see* D.08-07-046, Ordering Paragraph 22). The cost center expenses have been mapped to FERC accounts as explained in the testimony of Khai Nguyen (Ex. SDG&E-36), while the factors that are used to produce O&M to capital reassignment rates are sponsored in the Segmentation & Re-Assignment Rates testimony of Jeff Stein (Ex. SDG&E-41).

Finally, retirements for 2014 through 2016 for all plant accounts were forecasted based on a five-year retirement history from 2009 through 2013. 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 - Electric

Table SDGE-JSA-4

Working Capital - Electric
(Thousands of Nominal Dollars)

Line No.	Account Description	Recorded Year 2013	Estimated Year 2014	Estimated Year 2015	Test Year 2016
	Working Capital				
1	Materials & Supplies	$ 59,239	$ 87,760	$ 104,049	$ 105,592
2	Working Cash*	0	0	0	119,813
3	Total Working Capital	$ 59,239	$ 87,760	$ 104,049	$ 225,405

*2013 to 2015 Working Cash based on TY 2012 GRC Decision.

1. Materials and Supplies ("M&S")

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, and an allocated portion of General and Common consistent with the labor ratio allocation methodology referred to in Section IV.A. above. With the exception of M&S purchased as part of the termination of the Long Term Service Agreement ("LTSA") at Palomar; please see the testimony of Carl LaPeter (Ex. SDG&E-11), SDG&E does not anticipate significant changes from its current inventory levels for operational needs, the future costs of these M&S are assumed to increase at the projected rate of capital inflation. As such, the estimated years 2014 ($87.8 million) and 2015 ($104.0 million) and TY2016 ($105.6 million)[5] are calculated using the December 2013 ending balance of $59.2 million and applying the cost escalation index for capital inflation, which is sponsored in the testimony of Scott Wilder (Ex. SDG&E-33). Please see supporting 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

[5] Current M&S includes a weighted average incremental change illustrated in Table SDGE-JSA-4 of $15M for 2014; $30M for 2015, and $30M for TY2016 related to the purchase of parts through the termination of the Palomar LTSA. Please see the testimony of Carl LaPeter for an additional reference (Ex. SDG&E-11).

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 TY2016, SDG&E proposes electric working cash forecast of $119.8 million. The working cash study is sponsored in the testimony of Jack Lewis (Ex. SDG&E-30).

C. Other Deductions – Customer Advances for Construction ("CAC")

Table SDGE-JSA-5

Other Deductions - Electric
(Thousands of Nominal Dollars)

Line No.	Account Description	Recorded Year 2013	Estimated Year 2014	Estimated Year 2015	Test Year 2016
	Other Deductions				
1	Customer Advances For Construction	$ (14,720)	$ (25,264)	$ (26,978)	$ (27,159)
2	Total Other	$ (14,720)	$ (25,264)	$ (26,978)	$ (27,159)

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 an increase of $12.4 million in the average balance of electric CAC for new construction deposits and refunds in TY2016 as compared to Recorded Year 2013.

The forecast data begins with recorded December 2013 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. The primary driver to the CAC increases through TY 2016 are a result of deposits for planned major projects, with no resulting refunds as these major projects are not eligible for refunds within the scope of this GRC. Please see supporting work papers for the detailed computation.

D. Deductions for Reserves - Electric

Table SDGE-JSA-6

Deductions For Reserves - Electric
(Thousands of Nominal Dollars)

Line No.	Account Description	Recorded Year 2013	Estimated Year 2014	Estimated Year 2015	Test Year 2016
	Deductions For Reserves				
1	Accumulated Depreciation Reserve	$ 2,657,127	$ 2,820,282	$ 3,003,391	$ 3,197,021
2	Accumulated Amortization Reserve	125,429	162,561	211,208	266,911
3	Accumulated Deferred Taxes	445,665	439,181	485,015	463,611
4	Total Deductions For Reserves	$ 3,228,222	$ 3,422,024	$ 3,699,614	$ 3,927,543

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 the FERC Uniform System of Accounts. The amount is based on the recorded depreciation reserve as of December 31, 2013, and forecasted net activity (depreciation, retirements, and net salvage) of $554.8 million for years 2014 through 2016. Depreciation is sponsored in the testimony of Bob Wieczorek (Ex. SDG&E-28).

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, 2013, and forecasted net activity (amortization, retirements, and net salvage) of $152.8 million for years 2014 through 2016. Amortization is sponsored in the Depreciation testimony of Bob Wieczorek (Ex. SDG&E-28).

3. Accumulated Deferred Taxes

Accumulated Deferred Taxes arises from accelerated tax over book depreciation and the tax normalization requirements enacted pursuant to the Economic Tax Recovery Act of 1981 ("ERTA"). The tax normalization requirements provide that the federal tax basis of 1981 and future years' plant additions be depreciated for ratemaking tax purposes using book lives on a straight-line remaining life basis. The tax effect of the difference between this normalized

depreciation method and the accelerated depreciation methods allowed for federal income tax return purposes is treated as a reduction to rate base, thereby reflecting this tax treatment as a benefit for the ratepayer.

SDG&E has computed deferred tax balances in accordance with the normalization requirements of Internal Revenue Code Section 168(i)(9) and Regulation §1.167(1)-(h)(6)(ii). The forecasted deferred tax balance that reduces rate base is the weighted average of the beginning of the period balance and the end of the period balance (derived using a pro rata portion of the projected change during the period). The derivation of the deferred tax balance is sponsored in the testimony of the Taxes witness Ragan Reeves (Ex. SDG&E-29).

V. GAS RATE BASE SUMMARY

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

[Remainder of page intentionally left blank]

Table SDGE-JSA-7

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

Line No.	Account Description	Recorded Year 2013	Estimated Year 2014	Estimated Year 2015	Test Year 2016
	Fixed Capital				
1	Plant In Service	$ 1,552,171	$ 1,639,340	$ 1,728,282	$ 1,823,904
2	Total Fixed Capital	$ 1,552,171	$ 1,639,340	$ 1,728,282	$ 1,823,904
	Working Capital				
3	Fuel in Storage	$ 282	$ 282	$ 282	$ 282
4	Materials & Supplies	3,536	3,615	3,667	3,728
5	Working Cash*	0	0	0	16,243
6	Total Working Capital	$ 3,818	$ 3,896	$ 3,949	$ 20,252
	Other Deductions				
7	Customer Advances For Construction	$ (1,706)	$ (1,613)	$ (1,400)	$ (1,216)
8	Total Other	$ (1,706)	$ (1,613)	$ (1,400)	$ (1,216)
	Deductions For Reserves				
9	Accumulated Depreciation Reserve	$ 900,989	$ 928,355	$ 962,962	$ 994,323
10	Accumulated Amortization Reserve	41,490	47,351	57,237	68,621
11	Accumulated Deferred Taxes	80,394	60,932	69,463	66,757
12	Total Deductions For Reserves	$ 1,022,872	$ 1,036,638	$ 1,089,662	$ 1,129,701
13	Weighted Average Depreciated Rate Base	$ 531,411	$ 604,986	$ 641,169	$ 713,240

*2013 to 2015 Working Cash based on TY 2012 GRC Decision.

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

A. Fixed Capital - Gas Plant-In-Service

Table SDGE-JSA-8

Fixed Capital - Gas
(Thousands of Nominal Dollars)

Line No.	Account Description	Recorded Year 2013	Estimated Year 2014	Estimated Year 2015	Test Year 2016
	Fixed Capital				
1	Plant In Service	$ 1,552,171	$ 1,639,340	$ 1,728,282	$ 1,823,904
2	Total Fixed Capital	$ 1,552,171	$ 1,639,340	$ 1,728,282	$ 1,823,904

As shown above, the Recorded Year 2013 Weighted Average Gas Plant-in-Service is approximately $1.6 billion. This includes $1.4 billion in Gas Plant and $190.1 million in Common Plant allocated to Gas Plant, as shown in work papers.

The TY2016 Weighted Average Plant Balance for Gas, including the Common Plant associated with Gas, is based upon recorded plant data for 2013 and forecasted additions and retirements for 2014, 2015 and 2016. The Weighted Average Plant Balance for TY2016, including Common Plant applicable to Gas is $1.8 billion. The Weighted Average Plant Balance for TY2016 is composed of $1.6 billion in Gas Plant and $244.9 million in Common Plant applicable to Gas, as shown in work papers.

Forecasted Gas and Common direct capital expenditures totaled $242.4 million for years 2014 to 2016. Specific witnesses will provide testimonies regarding capital expenditures related to their organizations, as well as supporting documentation in their respective work papers.

For blanket or routine projects, annual capital additions were forecasted based on capital expenditures and historical average work order lives provided by organizational budget planners. For individual non-routine projects, plant additions were determined by the organization budget planners based on projected in-service dates. Capital expenditures are escalated and fully loaded with overheads by project by capital witnesses in the RO Model. The escalation factors applied are sponsored in the Escalation testimony of Scott Wilder (Ex. SDG&E-33). The capital overhead pool amounts such as engineering and department overheads are sponsored in the Electric Distribution and Gas Distribution testimonies of John Jenkins (Ex. SDG&E-09) and Frank Ayala (Ex. SDG&E-04), respectively. For all remaining overheads assigned to capital such as pension and benefits, workers compensation, administrative and general, etc., the costs are sponsored by various witnesses and forecasted in cost centers as directed in SDG&E's 2008 GRC decision (see D.08-07-046, Ordering Paragraph 22). The cost center expenses have been mapped to FERC accounts as explained in the testimony of Khai Nguyen (Ex. SDG&E-36), while the factors that are used to produce O&M to capital reassignments are sponsored in the Segmentation & Re-Assignment Rates testimony of Jeff Stein (Ex. SDG&E-41).

Finally, retirements for 2014 through 2016 for all plant accounts were forecasted based on a five-year retirement history from 2009 through 2013. 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-JSA-9

Working Capital - Gas
(Thousands of Nominal Dollars)

Line No.	Account Description	Recorded Year 2013	Estimated Year 2014	Estimated Year 2015	Test Year 2016
	Working Capital				
1	Fuel in Storage	$ 282	$ 282	$ 282	$ 282
2	Materials & Supplies	3,536	3,615	3,667	3,728
3	Working Cash*	0	0	0	16,243
4	Total Working Capital	$ 3,818	$ 3,896	$ 3,949	$ 20,252

*2013 to 2015 Working Cash based on TY 2012 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 2012 through December 2013 line pack values were used to develop the weighted average amount included in Gas rate base, with no forecasted changes in value for 2014 to 2016, as shown in work papers.

2. M&S

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 these M&S are assumed to increase at the projected rate of capital inflation. As such, the estimated years 2014 ($3.6 million) and 2015 ($3.7 million) and TY2016 ($3.7 million) are calculated using the December 2013 ending balance of $3.5 million and then applying an annual factor for capital inflation which is sponsored in the testimony of Escalation witness Scott Wilder (Ex. SDG&E-33). Please see supporting 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 TY2016, SDG&E proposes a gas working cash forecast of $16.2 million. The working cash study is sponsored in the testimony of Jack Lewis (Ex. SDG&E-30).

C. Other Deductions - CAC

Table SDGE-JSA-10

Other Deductions - Gas
(Thousands of Nominal Dollars)

Line No.	Account Description	Recorded Year 2013	Estimated Year 2014	Estimated Year 2015	Test Year 2016
	Other Deductions				
1	Customer Advances For Construction	$ (1,706)	$ (1,613)	$ (1,400)	$ (1,216)
2	Total Other	$ (1,706)	$ (1,613)	$ (1,400)	$ (1,216)

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 $0.5 million in the average balance of gas CAC for new construction deposits and refunds in TY2016 as compared to Recorded Year 2013.

The forecast data begins with recorded December 2013 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 work papers for the detailed computation.

D. Deductions for Reserves - Gas

Table SDGE-JSA-11

Deductions For Reserves - Gas
(Thousands of Nominal Dollars)

Line No.	Account Description	Recorded Year 2013	Estimated Year 2014	Estimated Year 2015	Test Year 2016
	Deductions For Reserves				
1	Accumulated Depreciation Reserve	$ 900,989	$ 928,355	$ 962,962	$ 994,323
2	Accumulated Amortization Reserve	41,490	47,351	57,237	68,621
3	Accumulated Deferred Taxes	80,394	60,932	69,463	66,757
4	Total Deductions For Reserves	$ 1,022,872	$ 1,036,638	$ 1,089,662	$ 1,129,701

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 the FERC Uniform System of Accounts. The amount is based on the recorded depreciation reserve as of December 31, 2013, and forecasted net activity (depreciation, retirements, and net salvage) of $88.1 million for years 2014 through 2016. Depreciation is sponsored in the testimony of Bob Wieczorek (Ex. SDG&E-28).

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, 2013, and forecasted net activity (amortization, retirements and net salvage) of $31.3 million for years 2014 through 2016. Amortization is sponsored in the Depreciation testimony of Bob Wieczorek (Ex. SDG&E-28).

3. Accumulated Deferred Taxes

Accumulated Deferred Taxes arises from accelerated tax over book depreciation and the tax normalization requirements enacted pursuant to Economic Recovery Tax Act ("ERTA") of 1981. The tax normalization requirements provide that the federal tax basis of 1981 and future years' plant additions be depreciated for ratemaking tax purposes using book lives on a straight-line remaining life basis. The tax effect of the difference between this normalized depreciation method and the accelerated depreciation methods allowed for federal income tax return purposes

is treated as a reduction to rate base, thereby reflecting this tax treatment as a benefit for the ratepayer.

SDG&E has computed deferred tax balances in accordance with the normalization requirements of Internal Revenue Code Section 168(i)(9) and Regulation §1.167(1)-(h)(6)(ii). The forecasted deferred tax balance that reduces rate base is the weighted average of the beginning of the period balance and the end of the period balance (derived using a pro rata portion of the projected change during the period). The derivation of the deferred tax balance is sponsored in the testimony of the Taxes witness Ragan Reeves (Ex. SDG&E-29).

VI. SHARED ASSET RATE BASE

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

The rate base calculation for both the shared assets that are recorded in SDG&E plant balances, and future forecasted shared assets, is computed in accordance with the same Commission-approved methodologies as described in Section III above. The Shared Assets witness Mark Diancin (Ex. SDG&E-26) provides the details for SDG&E's shared assets.

VII. CONCLUSION

SDG&E requests that the Commission adopt all components of Weighted Average Rate Base, as summarized on Table SDGE-JSA-1 for TY2016, as reasonable.

This concludes my revised prepared direct testimony.

VIII. WITNESS QUALIFICATIONS

My name is Jesse S. Aragon. My business address is 8335 Century Park Court, San Diego, California, 92123-1530. I am currently the Asset & Project Accounting Manager for SDG&E and responsible for accounting for plant assets; billable projects (including new business accounting); generation assets; development of rate base; capital expenditure planning; depreciation, and related policy and compliance. I was appointed to this position in December 2012.

I received a Bachelor of Science in Business Administration degree with an emphasis in Accounting from San Diego State University. I am a Certified Public Accountant in the state of California, a member of the American Institute of Certified Public Accountants and the California Society of Certified Public Accountants. I continue to maintain an active status license with practice rights by fulfilling the continuing professional education requirements. Upon receiving my Bachelor's degree, I was employed by Considine & Considine, Certified Public Accountants as an auditor and tax manager. After 4 years of public accounting work involving audit and tax services, I joined Lennar Partners, A LNR publicly traded corporation in the real estate industry as an assistant controller for approximately 3 years. In 2006, I joined SDG&E and have held various positions of increasing responsibility in the Accounting & Finance and Information Technology ("IT") & Support Services organization(s).

Prior to my current role, I was the Budgets & Planning Manager for the SDG&E and SCG IT & Support Services organizations. In that capacity, I was responsible for developing capital and O&M budgets, planning, and reporting to senior management on recorded results. I also held positions in Billable Project Accounting and Business Controls (including Sarbanes-Oxley ("SOX") compliance; Accounting Research; policy compliance; etc.)

Exhibit	Witness	Page	Line	Revision Detail
SDGE-27	*Jesse S. Aragon*	*JSA-1*	*8*	*Changed "4.7" to "4.6"*
SDGE-27	*Jesse S. Aragon*	*JSA-1*	8	*Changed "723" to "713"*
SDGE-27	*Jesse S. Aragon*	*JSA-2*	1	*Replaced Table JSA-1*
SDGE-27	*Jesse S. Aragon*	*JSA-6*	27	*Changed "SDG&E/RATE BASE/Exh No: SDG&E-27-CWP/Witness: J. Aragon page 123" to "SDG&E-27-R_JSAragon_Rate Base_CWP.pdf page 119"*
SDGE-27	*Jesse S. Aragon*	*JSA-9*	1	*Replaced Table JSA-2*
SDGE-27	*Jesse S. Aragon*	*JSA-11*	2	*Replaced Table JSA-3*
SDGE-27	*Jesse S. Aragon*	*JSA-12*	16	*Changed "601.4" to "607.8"*
SDGE-27	*Jesse S. Aragon*	*JSA-12*	27	*Changed "1.9" to "1.6"*
SDGE-27	*Jesse S. Aragon*	*JSA-14*	2	*Replaced Table JSA-4*
SDGE-27	*Jesse S. Aragon*	*JSA-15*	10	*Changed "124.1" to "119.8"*
SDGE-27	*Jesse S. Aragon*	*JSA-15*	13	*Replaced Table JSA-5*
SDGE-27	*Jesse S. Aragon*	*JSA-16*	5	*Changed "12.2" to "12.4"*
SDGE-27	*Jesse S. Aragon*	*JSA-17*	2	*Replaced Table JSA-6*
SDGE-27	*Jesse S. Aragon*	*JSA-17*	9	*Changed "553.9" to "554.8"*
SDGE-27	*Jesse S. Aragon*	*JSA-18*	16	*Changed "deviation" to "derivation"*
SDGE-27	*Jesse S. Aragon*	*JSA-19*	1	*Replaced Table JSA-7*
SDGE-27	*Jesse S. Aragon*	*JSA-21*	2	*Replaced Table JSA-8*
SDGE-27	*Jesse S. Aragon*	*JSA-21*	11	*Changed "242.3" to "244.9"*
SDGE-27	*Jesse S. Aragon*	*JSA-21*	13	*Changed "315.3" to "242.4"*
SDGE-27	*Jesse S. Aragon*	*JSA-23*	2	*Replaced Table JSA-9*
SDGE-27	*Jesse S. Aragon*	*JSA-24*	11	*Changed "17.7" to "16.2"*
SDGE-27	*Jesse S. Aragon*	*JSA-24*	14	*Replaced Table JSA-10*
SDGE-27	*Jesse S. Aragon*	*JSA-25*	11	*Replaced Table JSA-11*
SDGE-27	*Jesse S. Aragon*	*JSA-26*	1	*Changed "87.7" to "88.1"*
SDGE-27	*Jesse S. Aragon*	*JSA-27*	10	Added "revised"