

Company: San Diego Gas & Electric Company (U 902 M)
Proceeding: 2019 General Rate Case
Application: A.17-10-_____
Exhibit: SDG&E-42

SDG&E

DIRECT TESTIMONY OF KHAI NGUYEN

(SUMMARY OF EARNINGS)

October 6, 2017

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



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SUMMARY

San Diego Gas & Electric (SDG&E) proposes \$2,198,718,000 for its Test Year (TY) 2019 General Rate Case (GRC) revenue requirement. The electric revenue requirement is \$1,766,101,000 and the gas revenue requirement is \$432,617,000.

SDG&E DIRECT TESTIMONY OF KHAI NGUYEN
(SUMMARY OF EARNINGS)

I. INTRODUCTION

SDG&E forecasted expenses, taxes, depreciation, return, and rate base are in tables KN-1 through 48 (see Appendix A). The resulting 2019 combined gas and electric revenue requirement of \$2,198,718,000 is shown in Table KN-1, Line 3. Tables KN-2 and KN-5 provide separate summaries of earnings data for the Electric and Gas Departments, respectively. These tables summarize TY 2019 revenue and costs at both present and proposed rates. The revenue at present rates is the authorized base margin revenue effective as of September 1, 2017. See the Present and Proposed Electric Revenues & Rates testimony of Jeffrey Shaughnessy (Exhibit SDG&E-46) for details on electric revenues at present and proposed rates and the Present and Proposed Gas Transportation Revenues & Rates of Sharim Chaudhury (Exhibit SDG&E-45) for details on gas revenues at present and proposed rates.

SDG&E forecasts these expenditures to continue to safely provide utility service to customers, to maintain adequate system reliability, to provide responsive customer services and to comply with governmental regulations and orders applicable to SDG&E, as discussed by various witnesses. SDG&E also seeks to recover costs for taxes and depreciation associated with plant investments. The Tax and Depreciation testimonies are sponsored by Ragan Reeves (Exhibit SDG&E-35) and Matthew Vanderbilt (Exhibit SDG&E-34), respectively. In addition, this request includes revenue necessary to compensate investors for their capital investment in the utility.

II. SCOPE

Accumulated balances for regulatory accounts (balancing, tracking, or memorandum) included in the Regulatory Accounts testimony of Norma Jasso (Exhibit SDG&E-41) are not included in the TY 2019 revenue requirement described in my testimony. There are no deferred revenues included in the TY 2019 estimates. Commodity costs for gas and electricity are not addressed in the GRC. Also, SDG&E is not seeking the recovery of costs under the jurisdiction of the Federal Energy Regulatory Commission (FERC) in the GRC.

SDG&E owns a 20% share of the San Onofre Nuclear Generating Station (SONGS). On June 7, 2013, SCE announced the permanent retirement of Units 2 & 3 at SONGS. SONGS costs, except for Marine Mitigation and workers' compensation from the Master Insurance

1 Program (MIP), have been removed from SCE's 2018 GRC. SDG&E's total revenue
2 requirement request will consist of SDG&E's 20% share of the costs associated with the Marine
3 Mitigation and MIP workers' compensation costs submitted by Southern California Edison
4 Company (SCE) in its TY 2018 GRC filing. Please see the Electric Generation & SONGS
5 testimony of Daniel Baerman (Exhibit SDG&E-16) for SONGS related costs and Ms. Jasso's
6 testimony (Ex. SDG&E-41) for details on the regulatory treatment pertaining to SONGS.

7 **III. RESULTS OF OPERATIONS (RO) SUMMARY TABLES**

8 The RO calculation compiles all of the cost estimates put before the Commission in this
9 proceeding into an income statement format to estimate the amount of revenue needed for
10 SDG&E to earn an authorized rate of return on its investment.

11 SDG&E provides electric service under the jurisdiction of two regulatory commissions:
12 this Commission, which regulates electric sales to retail ratepayers in the state of California, and
13 the FERC, which regulates electric transmission. SDG&E is presenting this application in an
14 unbundled format consistent with its most recent GRC Decision (D.) 13-05-051. All common
15 costs have been separated into Unbundled Cost Categories. SDG&E provides gas service only
16 under the jurisdiction of this Commission.

17 SDG&E also wholly owns and operates four electric generation facilities: Palomar,
18 Miramar, Cuyamaca, and Desert Star. Cost for these generation facilities are included in the
19 Electric Department summaries. SDG&E's TY 2019 forecast also assumes that, pursuant to
20 D.16-09-021, SDG&E will acquire ownership of the Otay Mesa Energy Center (OMEC), which
21 Calpine currently owns and operates and which currently is the subject of a Power Purchase
22 Tolling Agreement (PPTA) with SDG&E. Please see Mr. Baerman's testimony (Ex. SDG&E-
23 16) for O&M and capital costs. The 2019 Generation Revenue requirement is \$280,112,000 and
24 detailed in Table KN-4 of my testimony.

IV. ELEMENTS OF THE RO CALCULATION

A. Revenue Requirement

Total operations and maintenance (O&M) and capital-related costs necessary to support SDG&E's rate base is called a revenue requirement. The revenue requirement is collected in two components: 1) miscellaneous revenues, discussed below, and 2) base margin. The electric base margin portion of the revenue requirement is collected in electric distribution and generation revenues, and the gas base margin is collected in gas transportation service revenues. Both base margins are collected from SDG&E's ratepayers.

B. Miscellaneous Revenues

Miscellaneous revenues consist of fees and revenues collected by SDG&E for the provision of specific products or services from non-rate sources and any revenues returned to the ratepayers pursuant to previous Commission decisions.¹ Miscellaneous revenues reduce the amount of electric and gas sales revenues to be collected from customers for electric and gas utility services (*i.e.*, base margin), as explained by the Miscellaneous Revenues testimony of Eric Dalton (Exhibit SDG&E-40).

C. O&M Expense Estimates

The testimonies addressing operating expenses in this Application describe the estimating methods used and the significant events reflected in forecasts for each expense area. This Application uses cost center structures and project structures consistent with internal budgeting methods in the development of the test year revenue requirement. All summary tables for O&M are presented using a cost center format.²

For purposes of calculating overheads and escalation, operating expenses are categorized in the RO model calculations between labor expense and materials and services (also known as non-labor) expense.

O&M expense estimates for each category of expense are summarized for the 2016 recorded and 2019 estimated year in constant 2016 dollars. As described in the Cost Escalation testimony of Scott Wilder (Exhibit SDG&E-39), labor and non-labor escalation rates were

¹ D.13-05-010 at 955.

² D.08-07-046, Ordering Paragraph (OP) 22.

1 applied to the 2016 constant dollar estimates to determine the estimated test year O&M expense
2 in 2019 dollar terms. Certain non-labor O&M expense estimates are not subject to escalation
3 rates and are presented in nominal dollars. These costs are referred throughout this Application
4 as “Non-Standard Escalation” or NSE. An example of NSE costs is certain contractual costs set
5 forth by existing agreements.

6 O&M expense forecasts are presented in testimonies in two groupings: Shared Services
7 (SS) and Non-Shared Services (NSS). Shared Services (SS) are O&M expenses incurred by
8 SDG&E and billed to Southern California Gas Company (SoCalGas) or Corporate Center, as the
9 entity or entities receiving those services (or SS can be billed to SDG&E if SoCalGas incurs
10 O&M expenses for the benefit of SDG&E). The second group of O&M expenses is NSS, which
11 are expenses incurred by SDG&E that are not subject to billing. Costs have been separated in
12 this manner so that cross-company billings include appropriate overheads and are properly
13 allocated. The O&M SS billing policy and process are explained in the Shared Services &
14 Shared Assets Billing, Segmentation & Capital Reassignments testimony of James Vanderhye
15 (Exhibit SDG&E-32). In the Summary of Earnings tables of my testimony, O&M expenses
16 summarized on Line 21 of Table KN-1 include SS and NSS.³ Details of NSS and SS costs are
17 found in Table KN-6.

18 As stated earlier, SDG&E expense forecasts are stated in cost center format.⁴ For
19 purposes of allocating O&M costs between the electric distribution, electric generation, and gas
20 unbundled cost categories, between expense or capital, and between CPUC or FERC
21 jurisdictions, a conversion of cost center forecasts to FERC Uniform System of Accounts format
22 is performed. The translation is based on 2016 recorded FERC settlements with adjustments
23 made by various witnesses to reflect 2019 forecasted O&M activities. The finalized cost center
24 factors ensure O&M cost center forecasts are appropriately mapped to FERC accounts to
25 produce the proper basis to apply segmentation and reassignment ratios. Please see Appendix B
26 for a Cost Center to FERC mapping which provides the ratio of each cost center’s O&M forecast

³ As discussed in the Accounting and Finance/Legal/Regulatory Affairs/External Affairs testimony of Sandra Hrna (Exhibit SDG&E-31), Meals and Entertainment has been excluded from the TY2019 revenue requirement. A topside adjustment of \$442,000 (2019\$) was reduced out of cost center 1AG009-000 to reflect the exclusion.

⁴ D.08-07-046, OP 22.

1 allocation to a FERC account. Please see the testimony of Mr. Vanderhye (Ex. SDG&E-32) for
2 details on the development of reassignment and segmentation factors.

3 **D. Capital-Related Costs**

4 Capital-related costs include depreciation, income taxes, ad valorem taxes, and return on
5 investment. The driver of these costs is the capital investment in utility rate base. Capital
6 investments forecasts are sponsored by various SDG&E witnesses and the utility rate base total
7 is sponsored by the Rate Base testimony of R. Craig Gentes (Exhibit SDG&E-33).

8 **E. Rate of Return**

9 The TY 2019 revenues at Proposed Rates reflect a forecasted rate of return of 7.56%
10 based on 10.2% return on equity (ROE). The rate of return will be updated with the authorized
11 rate of return at the next opportunity.⁵

12 **V. RECORDED DATA**

13 Adjustments have been made to the 2016 O&M data to exclude all revenues and
14 expenses that are recovered through separate filings before the Commission or the FERC.
15 Examples of excluded costs are Demand Side Management (DSM), Energy Savings Assistance
16 Program (ESAP), and California Alternate Rates for Energy (CARE) costs.

17 **VI. RO MODEL ENHANCEMENTS**

18 There were no major modifications made to the RO model since the 2016 GRC filing.

19
20 This concludes my prepared direct testimony.
21

⁵ Pending approval of SDG&E Advice Letter 3120-E/2611-G “Update to Authorized Rate of Return on Ratebase Pursuant to Decision (D.) 17-07-005, Effective January 1, 2018.”

1 **VII. WITNESS QUALIFICATIONS**

2 My name is Khai Nguyen. My business address is 555 West Fifth Street, Los Angeles,
3 California, 90013-1011. I am currently employed by SoCalGas as a Manager in the GRC
4 Financial Analysis group responsible for developing the revenue requirement forecasts for both
5 SDG&E and SoCalGas.

6 I received a Bachelor of Science Degree in Accounting from California State University,
7 Northridge. I am a Certified Public Accountant (CPA) and a member of the American Institute
8 of Certified Public Accountants (AICPA) and the California Society of Certified Public
9 Accountants. I was first employed by SoCalGas in 1998 and have held various positions in the
10 Regulatory and Accounting and Finance areas of the company; including Cost Accounting,
11 Affiliate Billing & Costing, and Financial Systems.

12 I have previously testified before the Commission.

LIST OF ACRONYMS

ACRONYM	DEFINITION
CARE	California Alternate Rates for Energy
CPUC	California Public Utilities Commission
ESAP	Energy Savings Assistance Program
DSM	Demand Side Management
FERC	Federal Energy Regulatory Commission
NSE	Non-Standard Escalation
NSS	Non-Shared Services
O&M	Operations and maintenance
OMEC	Otay Mesa Energy Center
OII	Order Instituting Investigation
PPTA	Power Purchase Tolling Agreement
PSEP	Pipeline Safety Enhancement Plan
RO	Results of Operations
ROE	Return on Equity
SCE	Southern California Edison Company
SDG&E	San Diego Gas & Electric Company
SoCalGas	Southern California Gas Company
SONGS	San Onofre Nuclear Generation Station
SS	Shared Services
TY	Test Year

APPENDIX A – SUMMARY OF EARNINGS TABLES

TABLE KN-1
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
COMBINED SUMMARY OF EARNINGS
(Thousands of Dollars)

Line No.	Description	2019 Present Rates	2019 Proposed Rates
		(2019\$)	(2019\$)
1	Base Margin	1,844,435	2,180,738
2	Miscellaneous Revenues	19,202	17,980
3	Revenue Requirement	1,864,493	2,198,718
	<u>OPERATING & MAINTENANCE EXPENSES</u>		
4	Distribution	194,263	194,263
5	Gas Transmission	6,668	6,668
6	PSEP	-	-
7	Generation	63,412	63,412
8	Engineering	11,000	11,000
9	Procurement	8,641	8,641
10	Customer Services	94,453	94,453
11	Information Technology	96,357	96,357
12	Support Services	100,354	100,354
13	Administrative and General	480,982	480,982
14	Subtotal (2016\$)	1,056,129	1,056,129
15	Shared Services Adjustments	(14,745)	(14,745)
16	Reassignments	(183,812)	(183,812)
17	FERC Transmission Costs	(74,630)	(74,630)
18	Escalation	33,055	33,055
19	Uncollectibles	3,209	3,794
20	Franchise Fees	59,264	69,293
21	Total O&M (2019\$)	878,470	889,084
22	Depreciation & Amortization	559,646	559,646
23	Taxes on Income	10,230	152,017
24	Taxes Other Than on Income	120,528	120,528
25	Total Operating Expenses	1,568,874	1,721,276
26	Return	295,619	477,441
27	Rate Base	6,306,275	6,315,363
28	Rate of Return	4.69%	7.56%

TABLE KN-2
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
ELECTRIC SUMMARY OF EARNINGS
(Thousands of Dollars)

Line No.	Description	2019 Present Rates	2019 Proposed Rates
		(2019\$)	(2019\$)
1	Base Margin	\$ 1,529,105	\$ 1,751,105
2	Miscellaneous Revenues	14,996	14,996
3	Revenue Requirement	\$ 1,544,957	\$ 1,766,101
	<u>OPERATING & MAINTENANCE EXPENSES</u>		
4	Distribution	157,783	157,783
5	Gas Transmission	-	-
6	PSEP	-	-
7	Generation	63,131	63,131
8	Engineering	-	-
9	Procurement	8,641	8,641
10	Customer Services	59,422	59,422
11	Information Technology	71,478	71,478
12	Support Services	78,040	78,040
13	Administrative and General	385,360	385,360
14	Subtotal (2016\$)	823,856	823,856
15	Shared Services Adjustments	(21,646)	(21,646)
16	Reassignments	(142,637)	(142,637)
17	FERC Transmission Costs	(74,630)	(74,630)
18	Escalation	23,003	23,003
19	Uncollectibles (0.174%)	2,661	3,047
20	Franchise Fees (3.4468%)	52,705	60,357
21	Total O&M (2019\$)	663,312	671,350
22	Depreciation & Amortization	474,679	474,679
23	Taxes on Income	26,657	120,024
24	Taxes Other Than on Income	99,105	99,105
25	Total Operating Expenses	\$ 1,263,753	\$ 1,365,158
26	Return	281,204	400,943
27	Rate Base	5,297,067	5,303,482
28	Rate of Return	5.31%	7.56%

TABLE KN-3
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
ELECTRIC DISTRIBUTION SUMMARY OF EARNINGS
(Thousands of Dollars)

Line No.	Description	2019 Present Rates (2019\$)	2019 Proposed Rates (2019\$)
1	Base Margin	\$ 1,302,670	\$ 1,470,993
2	Miscellaneous Revenues	15,852	14,996
3	Revenue Requirement	\$ 1,318,522	\$ 1,485,989
	<u>OPERATING & MAINTENANCE EXPENSES</u>		
4	Distribution	156,891	156,891
5	Gas Transmission	-	-
6	PSEP	-	-
7	Generation	804	804
8	Engineering	-	-
9	Procurement	8,641	8,641
10	Customer Services	59,210	59,210
11	Information Technology	67,609	67,609
12	Support Services	75,568	75,568
13	Administrative and General	362,101	362,101
14	Subtotal (2016\$)	730,823	730,823
15	Shared Services Adjustments	(20,164)	(20,164)
16	Reassignments	(136,806)	(136,806)
17	FERC Transmission Costs	(74,630)	(74,630)
18	Escalation	19,459	19,459
19	Uncollectibles	2,267	2,560
20	Franchise Fees	44,900	50,702
21	Total O&M (2019\$)	565,849	571,944
22	Depreciation & Amortization	409,016	409,016
23	Taxes on Income	16,755	87,442
24	Taxes Other Than on Income	83,799	83,799
25	Total Operating Expenses	\$ 1,075,418	\$ 1,152,200
26	Return	243,104	333,789
27	Rate Base	\$ 4,410,481	\$ 4,415,204
28	Rate of Return	5.51%	7.56%

TABLE KN-4
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
GENERATION SUMMARY OF EARNINGS
(Thousands of Dollars)

Line No.	Description	2019 Present Rates	2019 Proposed Rates
		(2019\$)	(2019\$)
1	Base Margin	\$ 226,435	\$ 280,112
2	Miscellaneous Revenues	-	-
3	Revenue Requirement	\$ 226,435	\$ 280,112
	<u>OPERATING & MAINTENANCE EXPENSES</u>		
4	Distribution	893	893
5	Gas Transmission	-	-
6	PSEP	-	-
7	Generation	62,327	62,327
8	Engineering	-	-
9	Procurement	-	-
10	Customer Services	212	212
11	Information Technology	3,869	3,869
12	Support Services	2,472	2,472
13	Administrative and General	23,259	23,259
14	Subtotal (2016\$)	93,033	93,033
15	Shared Services Adjustments	(1,482)	(1,482)
16	Reassignments	(5,831)	(5,831)
17	FERC Transmission Costs	-	-
18	Escalation	3,545	3,545
19	Uncollectibles	394	487
20	Franchise Fees	7,805	9,655
21	Total O&M (2019\$)	97,463	99,407
22	Depreciation & Amortization	65,663	65,663
23	Taxes on Income	9,902	32,582
24	Taxes Other Than on Income	15,306	15,306
25	Total Operating Expenses	\$ 188,335	\$ 212,958
26	Return	38,100	67,154
27	Rate Base	\$ 886,586	\$ 888,278
28	Rate of Return	4.30%	7.56%

TABLE KN-5
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
GAS SUMMARY OF EARNINGS
(Thousands of Dollars)

Line No.	Description	2019	2019
		Present Rates (2019\$)	Proposed Rates (2019\$)
1	Base Margin	\$ 315,330	\$ 429,633
2	Miscellaneous Revenues	4,206	2,984
3	Revenue Requirement	\$ 319,536	\$ 432,617
	<u>OPERATING & MAINTENANCE EXPENSES</u>		
4	Distribution	36,480	36,480
5	Gas Transmission	6,668	6,668
6	PSEP	-	-
7	Generation	280	280
8	Engineering	11,000	11,000
9	Procurement	-	-
10	Customer Services	35,031	35,031
11	Information Technology	24,879	24,879
12	Support Services	22,314	22,314
13	Administrative and General	95,622	95,622
14	Subtotal (2016\$)	232,273	232,273
15	Shared Services Adjustments	6,901	6,901
16	Reassignments	(41,175)	(41,175)
17	FERC Transmission Costs		
18	Escalation	10,051	10,051
19	Uncollectibles (0.174%)	549	748
20	Franchise Fees (2.0799%)	6,559	8,936
21	Total O&M (2019\$)	215,158	217,734
22	Depreciation & Amortization	84,967	84,967
23	Taxes on Income	(16,427)	31,994
24	Taxes Other Than on Income	21,423	21,423
25	Total Operating Expenses	\$ 305,121	\$ 356,118
26	Return	14,415	76,498
27	Rate Base	1,009,208	1,011,881
28	Rate of Return	1.43%	7.56%

TABLE KN-6
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019

(Thousands of Dollars)

Line No.	Description	2019	2019	2019
		Non-Shared Services	Shared Services	Total
		Proposed Rates	Proposed Rates	Proposed Rates
		(2016\$)	(2016\$)	(2016\$)
1	Base Margin			
2	Miscellaneous Revenues			
3	Revenue Requirement			
	<u>OPERATING & MAINTENANCE EXPENSES</u>			
4	Distribution	194,263	-	194,263
5	Gas Transmission	6,068	600	6,668
6	PSEP	-	-	-
7	Generation	62,317	1,095	63,412
8	Engineering	11,000	-	11,000
9	Procurement	8,641	-	8,641
10	Customer Services	94,109	344	94,453
11	Information Technology	29,741	66,616	96,357
12	Support Services	85,654	14,700	100,354
13	Administrative and General	455,777	25,205	480,982
14	Subtotal (2016\$)	947,570	108,559	1,056,129
A	Shared Services Billed Out	0	(47,977)	(47,977)
B	Shared Services Billed In	0	19,355	19,355
C	Shared Services Overhead Credit	0	(22,098)	(22,098)
D	Shared Services Billed In Overheads	0	15,618	15,618
E	Corporate Reallocation	1,966	-	1,966
F	Subtotal	1,966	(35,102)	(33,137)
G	Shared Asset Expense	55,049	-	55,049
H	Billed Capital Overhead Credit	0	(36,657)	(36,657)
I	SOP 98 Expense	-	0	-
15	Total Shared Service Adjustments	57,015	(71,759)	(14,745)
16	Total	1,004,585	36,800	1,041,385

TABLE KN-7
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
DISTRIBUTION COMBINED
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
William Speer	1ED001	Reliability & Capacity	244	340	359
William Speer	1ED002	Construction Services	5,363	19,167	20,200
William Speer	1ED003	DistOps Enterprise Geographic Information System Standards	1,379	1,253	1,362
William Speer	1ED004	Electric Distribution Operations	15,589	22,546	23,829
William Speer	1ED006	Kearny Operations Services	1,350	2,133	2,316
William Speer	1ED008	Grid Operations	667	567	608
William Speer	1ED009	Officer	772	772	837
William Speer	1ED010	Project Management	659	1,346	1,455
William Speer	1ED011	Electric Regional Operations	35,613	42,792	45,834
William Speer	1ED013	Skills & Compliance Training	4,133	4,661	5,045
William Speer	1ED014	Service Order Team (SOT)	161	161	172
William Speer	1ED015	Substation C&O	4,582	5,323	5,729
William Speer	1ED017	System Protection	1,459	1,861	2,012
William Speer	1ED018	Distribution and Engineering	2,342	4,298	4,560
William Speer	1ED019	Asset Management	-	4,610	4,982
William Speer	1ED020	Troubleshooting	7,897	7,797	8,470
William Speer	1ED021	Vegetation Management (Pole Brushing)	26,456	26,415	27,802
William Speer	1ED022	Regional Public Affairs	1,964	1,802	1,923
William Speer	1ED023	Major Projects	119	110	117
William Speer	1ED024	Technology Utilization	1,042	1,226	1,324
William Speer	1ED025	Compliance Management	2,695	2,857	3,041
William Speer	1ED026	Tech Solutions and Reliability	2,544	3,260	3,502
William Speer	1ED027	Emergency Management	2,503	5,344	5,677
William Speer	1ED028	Strategic Planning and Business Optimization	1,630	2,390	2,564
William Speer	1ED030	Distributed Energy Resources	1,304	1,699	1,792
Total			122,467	164,730	175,512
Gina Orozco-Mejia	1GD000	Field O&M - Other Services	14,419	16,350	17,655
Gina Orozco-Mejia	1GD001	Asset Management	1,718	2,168	2,339
Gina Orozco-Mejia	1GD002	Measurement & Regulation	3,873	4,216	4,561
Gina Orozco-Mejia	1GD003	Cathodic Protection	1,829	2,289	2,485
Gina Orozco-Mejia	1GD004	Operations Management & Training	3,939	4,510	4,864
Total			25,778	29,533	31,904
Total NSS			148,245	194,263	207,416
Total			-	-	-
Total SS			-	-	-
Total Distribution			\$ 148,245	\$ 194,263	\$ 207,416

TABLE KN-8
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
DISTRIBUTION ELECTRIC DEPARTMENT
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
William Speer	1ED001	Reliability & Capacity	239	334	352
William Speer	1ED002	Construction Services	5,063	18,095	19,064
William Speer	1ED003	DistOps Enterprise Geographic Information System Standards	1,379	1,253	1,362
William Speer	1ED004	Electric Distribution Operations	13,772	19,918	21,036
William Speer	1ED006	Kearny Operations Services	1,036	1,637	1,777
William Speer	1ED008	Grid Operations	667	567	608
William Speer	1ED009	Officer	590	590	639
William Speer	1ED010	Project Management	659	1,346	1,455
William Speer	1ED011	Electric Regional Operations	34,293	41,206	44,130
William Speer	1ED013	Skills & Compliance Training	3,762	4,242	4,591
William Speer	1ED014	Service Order Team (SOT)	146	146	156
William Speer	1ED015	Substation C&O	4,390	5,100	5,489
William Speer	1ED017	System Protection	1,439	1,836	1,985
William Speer	1ED018	Distribution and Engineering	2,292	4,206	4,462
William Speer	1ED019	Asset Management	-	3,471	3,750
William Speer	1ED020	Troubleshooting	7,897	7,797	8,470
William Speer	1ED021	Vegetation Management (Pole Brushing)	26,456	26,415	27,802
William Speer	1ED022	Regional Public Affairs	1,497	1,374	1,465
William Speer	1ED023	Major Projects	100	92	98
William Speer	1ED024	Technology Utilization	912	1,073	1,159
William Speer	1ED025	Compliance Management	2,695	2,857	3,041
William Speer	1ED026	Tech Solutions and Reliability	2,350	3,012	3,235
William Speer	1ED027	Emergency Management	2,203	4,704	4,994
William Speer	1ED028	Strategic Planning and Business Optimization	1,227	1,800	1,929
William Speer	1ED030	Distributed Energy Resources	1,166	1,520	1,602
Total			116,231	154,589	164,650
Gina Orozco-Mejia	1GD000	Field O&M - Other Services	2,831	3,194	3,422
Gina Orozco-Mejia	1GD001	Asset Management	-	-	-
Gina Orozco-Mejia	1GD002	Measurement & Regulation	-	-	-
Gina Orozco-Mejia	1GD003	Cathodic Protection	-	-	-
Gina Orozco-Mejia	1GD004	Operations Management & Training	-	-	-
Total			2,831	3,194	3,422
Total NSS			119,062	157,783	168,072
Total			-	-	-
Total SS			-	-	-
Total Distribution Electric Department			\$ 119,062	\$ 157,783	\$ 168,072

TABLE KN-9
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
DISTRIBUTION ELECTRIC DISTRIBUTION
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
William Speer	1ED001	Reliability & Capacity	239	333	352
William Speer	1ED002	Construction Services	5,049	18,046	19,012
William Speer	1ED003	DistOps Enterprise Geographic Information System Standards	1,379	1,253	1,362
William Speer	1ED004	Electric Distribution Operations	13,671	19,772	20,882
William Speer	1ED006	Kearny Operations Services	1,035	1,635	1,775
William Speer	1ED008	Grid Operations	667	567	608
William Speer	1ED009	Officer	557	557	603
William Speer	1ED010	Project Management	659	1,346	1,455
William Speer	1ED011	Electric Regional Operations	34,260	41,167	44,088
William Speer	1ED013	Skills & Compliance Training	3,762	4,242	4,591
William Speer	1ED014	Service Order Team (SOT)	144	144	153
William Speer	1ED015	Substation C&O	4,389	5,099	5,488
William Speer	1ED017	System Protection	1,439	1,836	1,985
William Speer	1ED018	Distribution and Engineering	2,292	4,206	4,462
William Speer	1ED019	Asset Management	-	3,264	3,526
William Speer	1ED020	Troubleshooting	7,897	7,797	8,470
William Speer	1ED021	Vegetation Management (Pole Brushing)	26,456	26,415	27,802
William Speer	1ED022	Regional Public Affairs	1,416	1,299	1,385
William Speer	1ED023	Major Projects	97	89	95
William Speer	1ED024	Technology Utilization	888	1,045	1,129
William Speer	1ED025	Compliance Management	2,695	2,857	3,041
William Speer	1ED026	Tech Solutions and Reliability	2,315	2,966	3,186
William Speer	1ED027	Emergency Management	2,148	4,587	4,870
William Speer	1ED028	Strategic Planning and Business Optimization	1,154	1,692	1,814
William Speer	1ED030	Distributed Energy Resources	1,141	1,487	1,568
Total			115,750	153,701	163,701
Gina Orozco-Mejia	1GD000	Field O&M - Other Services	2,826	3,189	3,417
Gina Orozco-Mejia	1GD001	Asset Management	-	-	-
Gina Orozco-Mejia	1GD002	Measurement & Regulation	-	-	-
Gina Orozco-Mejia	1GD003	Cathodic Protection	-	-	-
Gina Orozco-Mejia	1GD004	Operations Management & Training	-	-	-
Total			2,826	3,189	3,417
Total NSS			118,576	156,891	167,118
Total			-	-	-
Total SS			-	-	-
Total Distribution Electric Distribution			\$ 118,576	\$ 156,891	\$ 167,118

TABLE KN-10
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
DISTRIBUTION GENERATION
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
William Speer	1ED001	Reliability & Capacity	0	0	0
William Speer	1ED002	Construction Services	14	49	52
William Speer	1ED003	DistOps Enterprise Geographic Information System Standards	-	-	-
William Speer	1ED004	Electric Distribution Operations	101	146	154
William Speer	1ED006	Kearny Operations Services	1	2	2
William Speer	1ED008	Grid Operations	-	-	-
William Speer	1ED009	Officer	33	33	36
William Speer	1ED010	Project Management	-	-	-
William Speer	1ED011	Electric Regional Operations	32	39	42
William Speer	1ED013	Skills & Compliance Training	-	-	-
William Speer	1ED014	Service Order Team (SOT)	3	3	3
William Speer	1ED015	Substation C&O	1	1	1
William Speer	1ED017	System Protection	0	0	0
William Speer	1ED018	Distribution and Engineering	-	-	-
William Speer	1ED019	Asset Management	-	207	224
William Speer	1ED020	Troubleshooting	-	-	-
William Speer	1ED021	Vegetation Management (Pole Brushing)	-	-	-
William Speer	1ED022	Regional Public Affairs	82	75	80
William Speer	1ED023	Major Projects	3	3	3
William Speer	1ED024	Technology Utilization	24	28	30
William Speer	1ED025	Compliance Management	-	-	-
William Speer	1ED026	Tech Solutions and Reliability	35	45	49
William Speer	1ED027	Emergency Management	55	117	124
William Speer	1ED028	Strategic Planning and Business Optimization	73	108	115
William Speer	1ED030	Distributed Energy Resources	25	33	34
Total			482	888	949
Gina Orozco-Mejia	1GD000	Field O&M - Other Services	4	5	5
Gina Orozco-Mejia	1GD001	Asset Management	-	-	-
Gina Orozco-Mejia	1GD002	Measurement & Regulation	-	-	-
Gina Orozco-Mejia	1GD003	Cathodic Protection	-	-	-
Gina Orozco-Mejia	1GD004	Operations Management & Training	-	-	-
Total			4	5	5
Total NSS			486	893	954
Total			-	-	-
Total SS			-	-	-
Total Distribution Generation			\$ 486	\$ 893	\$ 954

TABLE KN-11
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
DISTRIBUTION GAS
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
William Speer	1ED001	Reliability & Capacity	5	6	7
William Speer	1ED002	Construction Services	300	1,072	1,136
William Speer	1ED003	DistOps Enterprise Geographic Information System Standards	-	-	-
William Speer	1ED004	Electric Distribution Operations	1,817	2,628	2,792
William Speer	1ED006	Kearny Operations Services	314	496	539
William Speer	1ED008	Grid Operations	-	-	-
William Speer	1ED009	Officer	182	182	198
William Speer	1ED010	Project Management	-	-	-
William Speer	1ED011	Electric Regional Operations	1,320	1,586	1,705
William Speer	1ED013	Skills & Compliance Training	371	419	453
William Speer	1ED014	Service Order Team (SOT)	15	15	16
William Speer	1ED015	Substation C&O	192	223	240
William Speer	1ED017	System Protection	20	25	27
William Speer	1ED018	Distribution and Engineering	50	92	99
William Speer	1ED019	Asset Management	-	1,139	1,232
William Speer	1ED020	Troubleshooting	-	-	-
William Speer	1ED021	Vegetation Management (Pole Brushing)	-	-	-
William Speer	1ED022	Regional Public Affairs	467	428	458
William Speer	1ED023	Major Projects	19	18	19
William Speer	1ED024	Technology Utilization	130	153	165
William Speer	1ED025	Compliance Management	-	-	-
William Speer	1ED026	Tech Solutions and Reliability	194	248	268
William Speer	1ED027	Emergency Management	300	640	683
William Speer	1ED028	Strategic Planning and Business Optimization	403	590	635
William Speer	1ED030	Distributed Energy Resources	138	179	190
Total			6,236	10,141	10,862
Gina Orozco-Mejia	1GD000	Field O&M - Other Services	11,588	13,156	14,233
Gina Orozco-Mejia	1GD001	Asset Management	1,718	2,168	2,339
Gina Orozco-Mejia	1GD002	Measurement & Regulation	3,873	4,216	4,561
Gina Orozco-Mejia	1GD003	Cathodic Protection	1,829	2,289	2,485
Gina Orozco-Mejia	1GD004	Operations Management & Training	3,939	4,510	4,864
Total			22,947	26,339	28,482
Total NSS			29,183	36,480	39,344
Total			-	-	-
Total SS			-	-	-
Total Distribution Gas			\$ 29,183	\$ 36,480	\$ 39,344

TABLE KN-12
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
GAS TRANSMISSION
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Elizabeth A. Musich	1GT000	Pipeline Operations	1,342	1,839	1,980
Elizabeth A. Musich	1GT001	Compression Station Operations	2,981	3,123	3,354
Elizabeth A. Musich	1GT002	Technical Services	47	148	160
		Total	4,370	5,110	5,494
Omar Rivera	1SI000	GAS CONTRACTOR CONTROLS	-	127	138
Omar Rivera	1SI002	PIPELINE SAFETY & COMPLIANCE	31	106	115
Omar Rivera	1SI003	DAMAGE PREVENTION AND PUBLIC AWARENESS	120	725	767
		Total	151	958	1,020
		Total NSS	4,521	6,068	6,514
Omar Rivera	2100-3563	CODES STANDARDS AND RECORDS	-	600	642
		Total SS	-	600	642
		Total Gas Transmission	\$ 4,521	\$ 6,668	\$ 7,157

TABLE KN-13
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
GENERATION COMBINED
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Daniel S. Baerman	1EG001	Generation - Plant - Admin	349	349	380
Daniel S. Baerman	1EG002	Generation Plant Miramar	1,415	2,380	2,514
Daniel S. Baerman	1EG003	Generation Plant Palomar	17,583	18,556	19,642
Daniel S. Baerman	1EG004	Electric Project Development	63	121	132
Daniel S. Baerman	1EG005	Generation Plant Otay Mesa	-	22,796	23,949
Daniel S. Baerman	1EG006	Generation Plant Desert Star	14,419	15,561	16,180
Daniel S. Baerman	1EG007	Generation Plant Cuyamaca Peak	1,370	1,078	1,141
Daniel S. Baerman	1EG010	EG -SONGS Wkp_Grp_2	1,239	1,476	1,476
		Total	36,438	62,317	65,413
		Total NSS	36,438	62,317	65,413
Daniel S. Baerman	2100-3433	RESOURCE PLANNING DIRECTOR	746	1,095	1,172
		Electric Generation Total	746	1,095	1,172
		Total SS	746	1,095	1,172
		Total Generation Combined	\$ 37,184	\$ 63,412	\$ 66,585

TABLE KN-14
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
GENERATION ELECTRIC DEPARTMENT
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Daniel S. Baerman	1EG001	Generation - Plant - Admin	349	349	380
Daniel S. Baerman	1EG002	Generation Plant Miramar	1,415	2,380	2,514
Daniel S. Baerman	1EG003	Generation Plant Palomar	17,583	18,556	19,642
Daniel S. Baerman	1EG004	Electric Project Development	58	111	121
Daniel S. Baerman	1EG005	Generation Plant Otay Mesa	-	22,796	23,949
Daniel S. Baerman	1EG006	Generation Plant Desert Star	14,419	15,561	16,180
Daniel S. Baerman	1EG007	Generation Plant Cuyamaca Peak	1,370	1,078	1,141
Daniel S. Baerman	1EG010	EG -SONGS Wkp_Grp_2	1,239	1,476	1,476
Total			36,433	62,307	65,402
Total NSS			36,433	62,307	65,402
Daniel S. Baerman	2100-3433	RESOURCE PLANNING DIRECTOR	562	824	882
Total			562	824	882
Total SS			562	824	882
Total Generation Electric Department			\$ 36,995	\$ 63,131	\$ 66,284

TABLE KN-15
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
GENERATION ELECTRIC DISTRIBUTION
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Daniel S. Baerman	1EG001	Generation - Plant - Admin	-	-	-
Daniel S. Baerman	1EG002	Generation Plant Miramar	-	-	-
Daniel S. Baerman	1EG003	Generation Plant Palomar	-	-	-
Daniel S. Baerman	1EG004	Electric Project Development	15	29	31
Daniel S. Baerman	1EG005	Generation Plant Otay Mesa	-	-	-
Daniel S. Baerman	1EG006	Generation Plant Desert Star	-	-	-
Daniel S. Baerman	1EG007	Generation Plant Cuyamaca Peak	-	-	-
Daniel S. Baerman	1EG010	EG -SONGS Wkp_Grp_2	-	-	-
		Total	15	29	31
		Total NSS	15	29	31
Daniel S. Baerman	2100-3433	RESOURCE PLANNING DIRECTOR	528	775	830
		Total	528	775	830
		Total SS	528	775	830
		Total Generation Electric Distribution	\$ 543	\$ 804	\$ 861

TABLE KN-16
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
GENERATION
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Daniel S. Baerman	1EG001	Generation - Plant - Admin	349	349	380
Daniel S. Baerman	1EG002	Generation Plant Miramar	1,415	2,380	2,514
Daniel S. Baerman	1EG003	Generation Plant Palomar	17,583	18,556	19,642
Daniel S. Baerman	1EG004	Electric Project Development	43	82	89
Daniel S. Baerman	1EG005	Generation Plant Otay Mesa	-	22,796	23,949
Daniel S. Baerman	1EG006	Generation Plant Desert Star	14,419	15,561	16,180
Daniel S. Baerman	1EG007	Generation Plant Cuyamaca Peak	1,370	1,078	1,141
Daniel S. Baerman	1EG010	EG -SONGS Wkp_Grp_2	1,239	1,476	1,476
		Total	36,418	62,278	65,371
		Total NSS	36,418	62,278	65,371
Daniel S. Baerman	2100-3433	RESOURCE PLANNING DIRECTOR	34	49	53
		Total	34	49	53
		Total SS	34	49	53
		Total Generation Gen	\$ 36,451	\$ 62,327	\$ 65,423

TABLE KN-17
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
GENERATION GAS
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Daniel S. Baerman	1EG001	Generation - Plant - Admin	-	-	-
Daniel S. Baerman	1EG002	Generation Plant Miramar	-	-	-
Daniel S. Baerman	1EG003	Generation Plant Palomar	-	-	-
Daniel S. Baerman	1EG004	Electric Project Development	5	10	11
Daniel S. Baerman	1EG005	Generation Plant Otay Mesa	-	-	-
Daniel S. Baerman	1EG006	Generation Plant Desert Star	-	-	-
Daniel S. Baerman	1EG007	Generation Plant Cuyamaca Peak	-	-	-
Daniel S. Baerman	1EG010	EG -SONGS Wkp_Grp_2	-	-	-
		Total	5	10	11
		Total NSS	5	10	11
Daniel S. Baerman	2100-3433	RESOURCE PLANNING DIRECTOR	184	270	289
		Total	184	270	289
		Total SS	184	270	289
		Total Generation Gas	\$ 189	\$ 280	\$ 300

TABLE KN-18
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
ENGINEERING COMBINED
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Maria T. Martinez	1TD000	TIMP	7,744	11,000	11,701
		Total	7,744	11,000	11,701
		Total NSS	7,744	11,000	11,701
		Total SS	-	-	-
		Total Engineering Combined	7,744	11,000	11,701

TABLE KN-19
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
ENGINEERING ELECTRIC DEPARTMENT
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Maria T. Martinez	1TD000	TIMP	-	-	-
		Total	-	-	-
		Total NSS	-	-	-
		Total SS	-	-	-
		Total Engineering Electric Distribution	\$ -	\$ -	\$ -
		Total Engineering Generation	-	-	-
		Total Engineering Electric Department	-	-	-

TABLE KN-20
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
ENGINEERING GAS
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Maria T. Martinez	1TD000	TIMP	7,744	11,000	11,701
		Total	7,744	11,000	11,701
		Total NSS	7,744	11,000	11,701
		Total SS	-	-	-
		Total Engineering Gas	\$ 7,744	\$ 11,000	\$ 11,701

TABLE KN-21
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
PROCUREMENT COMBINED
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Kendall K. Helm	1EP001	Long Term Procurement	1,763	2,203	2,388
Kendall K. Helm	1EP002	Trading & Scheduling	2,831	2,949	3,186
Kendall K. Helm	1EP003	Mid and Back Office	3,369	3,489	3,757
		SDG&E Electric & Gas Procurement Total	7,963	8,641	9,332
		Total NSS	7,963	8,641	9,332
		SDG&E Electric & Gas Procurement Total	-	-	-
		Total SS	-	-	-
		Total Procurement Combined	\$ 7,963	\$ 8,641	\$ 9,332

TABLE KN-22
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
PROCUREMENT ELECTRIC DEPARTMENT
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Kendall K. Helm	1EP001	Long Term Procurement	1,763	2,203	2,388
Kendall K. Helm	1EP002	Trading & Scheduling	2,831	2,949	3,186
Kendall K. Helm	1EP003	Mid and Back Office	3,369	3,489	3,757
		Total	7,963	8,641	9,332
		Total NSS	7,963	8,641	9,332
		Total	-	-	-
		Total SS	-	-	-
		Total Procurement Electric Department	\$ 7,963	\$ 8,641	\$ 9,332

TABLE KN-23
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
PROCUREMENT ELECTRIC DISTRIBUTION
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Kendall K. Helm	1EP001	Long Term Procurement	1,763	2,203	2,388
Kendall K. Helm	1EP002	Trading & Scheduling	2,831	2,949	3,186
Kendall K. Helm	1EP003	Mid and Back Office	3,369	3,489	3,757
		Total	7,963	8,641	9,332
		Total NSS	7,963	8,641	9,332
		Total	-	-	-
		Total SS	-	-	-
		Total Procurement Electric Distribution	\$ 7,963	\$ 8,641	\$ 9,332

TABLE KN-24
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
PROCUREMENT GENERATION
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Kendall K. Helm	1EP001	Long Term Procurement	-	-	-
Kendall K. Helm	1EP002	Trading & Scheduling	-	-	-
Kendall K. Helm	1EP003	Mid and Back Office	-	-	-
		Total	-	-	-
		Total NSS	-	-	-
		Total	-	-	-
		Total SS	-	-	-
		Total Procurement Generation	\$ -	\$ -	\$ -

TABLE KN-25
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
PROCUREMENT GAS
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Kendall K. Helm	1EP001	Long Term Procurement	-	-	-
Kendall K. Helm	1EP002	Trading & Scheduling	-	-	-
Kendall K. Helm	1EP003	Mid and Back Office	-	-	-
		Total	-	-	-
		Total NSS	-	-	-
		Total	-	-	-
		Total SS	-	-	-
		Total Procurement Gas	\$ -	\$ -	\$ -

TABLE KN-26
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
CUSTOMER SERVICES COMBINED
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Gwen R. Marelli	1FC001	Customer Services Field - Operations	13,212	15,888	17,261
Gwen R. Marelli	1FC002	Customer Services Field - Supervision	1,237	1,422	1,546
Gwen R. Marelli	1FC003	Customer Services Field - Dispatch	4,335	3,906	4,248
Gwen R. Marelli	1FC004	Customer Services Field - Support	2,655	2,517	2,728
Total			21,439	23,733	25,784
Lisa C. Davidson	1IN001	Residential Customer Services	5,262	6,267	6,706
Lisa C. Davidson	1IN002	Business Services	5,037	4,812	5,204
Lisa C. Davidson	1IN003	Marketing Research & Analytics	6,219	8,574	9,131
Lisa C. Davidson	1IN004	Customer Programs Pricing and Other Office	5,226	6,405	6,910
Total			21,744	26,058	27,950
Jerry D. Stewart	1OO001	Advanced Metering Ops	8,157	10,034	10,856
Jerry D. Stewart	1OO002	Billing	4,263	8,023	8,584
Jerry D. Stewart	1OO003	Credit & Collections	2,627	3,073	3,315
Jerry D. Stewart	1OO004	Remittance Processing	4,945	4,601	4,641
Jerry D. Stewart	1OO005	Branch Offices	1,979	2,209	2,372
Jerry D. Stewart	1OO006	CCC Operations	8,937	10,096	10,978
Jerry D. Stewart	1OO007	CCC Support	2,790	2,679	2,870
Jerry D. Stewart	1OO008	Customer Operations Support & Projects	3,119	3,603	3,916
Total			36,817	44,318	47,531
Total NSS			80,000	94,109	101,265
Lisa C. Davidson	2100-3434	Business Strategy and Development	239	239	256
Lisa C. Davidson	2100-3709	Low Emission Vehicle Program	104	104	112
Total			343	344	368
Gwen R. Marelli	2100-3511	Customer Services Continuous Improvement Manager	-	-	-
Total			-	-	-
Total SS			343	344	368
Total Customer Services Electric Distribution			\$ 80,343	\$ 94,453	\$ 101,633

TABLE KN-27
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
CUSTOMER SERVICES ELECTRIC DEPARTMENT
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Gwen R. Marelli	1FC001	Customer Services Field - Operations	1,653	1,988	2,159
Gwen R. Marelli	1FC002	Customer Services Field - Supervision	247	284	308
Gwen R. Marelli	1FC003	Customer Services Field - Dispatch	2,279	2,054	2,234
Gwen R. Marelli	1FC004	Customer Services Field - Support	650	616	667
		Total	4,829	4,941	5,367
Lisa C. Davidson	1IN001	Residential Customer Services	4,599	5,477	5,858
Lisa C. Davidson	1IN002	Business Services	4,318	4,125	4,461
Lisa C. Davidson	1IN003	Marketing Research & Analytics	5,435	7,494	7,976
Lisa C. Davidson	1IN004	Customer Programs Pricing and Other Office	4,126	5,056	5,453
		Total	18,478	22,153	23,747
Jerry D. Stewart	1OO001	Advanced Metering Ops	7,779	9,569	10,353
Jerry D. Stewart	1OO002	Billing	2,767	5,207	5,564
Jerry D. Stewart	1OO003	Credit & Collections	1,705	1,994	2,150
Jerry D. Stewart	1OO004	Remittance Processing	3,209	2,986	3,011
Jerry D. Stewart	1OO005	Branch Offices	1,284	1,434	1,538
Jerry D. Stewart	1OO006	CCC Operations	5,800	6,552	7,124
Jerry D. Stewart	1OO007	CCC Support	1,811	1,739	1,860
Jerry D. Stewart	1OO008	Customer Operations Support & Projects	2,230	2,576	2,799
		Total	26,585	32,057	34,398
		Total NSS	49,892	59,151	63,513
Lisa C. Davidson	2100-3434	Business Strategy and Development	180	180	193
Lisa C. Davidson	2100-3709	Low Emission Vehicle Program	91	91	98
		Total	271	271	290
Gwen R. Marelli	2100-3511	Customer Services Continuous Improvement Manager	-	-	-
		Total	-	-	-
		Total SS	271	271	290
		Total Customer Services Electric Distribution	\$ 50,163	\$ 59,422	\$ 63,803

TABLE KN-28
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
CUSTOMER SERVICES ELECTRIC DISTRIBUTION
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Gwen R. Marelli	1FC001	Customer Services Field - Operations	1,653	1,988	2,159
Gwen R. Marelli	1FC002	Customer Services Field - Supervision	247	284	308
Gwen R. Marelli	1FC003	Customer Services Field - Dispatch	2,279	2,054	2,234
Gwen R. Marelli	1FC004	Customer Services Field - Support	650	616	667
		Total	4,829	4,941	5,367
Lisa C. Davidson	1IN001	Residential Customer Services	4,599	5,477	5,858
Lisa C. Davidson	1IN002	Business Services	4,318	4,125	4,461
Lisa C. Davidson	1IN003	Marketing Research & Analytics	5,435	7,494	7,976
Lisa C. Davidson	1IN004	Customer Programs Pricing and Other Office	3,961	4,855	5,235
		Total	18,314	21,951	23,530
Jerry D. Stewart	10O001	Advanced Metering Ops	7,779	9,569	10,353
Jerry D. Stewart	10O002	Billing	2,767	5,207	5,564
Jerry D. Stewart	10O003	Credit & Collections	1,705	1,994	2,150
Jerry D. Stewart	10O004	Remittance Processing	3,209	2,986	3,011
Jerry D. Stewart	10O005	Branch Offices	1,284	1,434	1,538
Jerry D. Stewart	10O006	CCC Operations	5,800	6,552	7,124
Jerry D. Stewart	10O007	CCC Support	1,811	1,739	1,860
Jerry D. Stewart	10O008	Customer Operations Support & Projects	2,230	2,576	2,799
		Total	26,585	32,057	34,398
		Total NSS	49,727	58,949	63,296
Lisa C. Davidson	2100-3434	Business Strategy and Development	169	169	181
Lisa C. Davidson	2100-3709	Low Emission Vehicle Program	91	91	98
		Total	260	260	279
Gwen R. Marelli	2100-3511	Customer Services Continuous Improvement Manager	-	-	-
		Total	-	-	-
		Total SS	260	260	279
Total Customer Services Electric Distribution			\$ 49,988	\$ 59,210	\$ 63,575

TABLE KN-29
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
CUSTOMER SERVICES GENERATION
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Gwen R. Marelli	1FC001	Customer Services Field - Operations	-	-	-
Gwen R. Marelli	1FC002	Customer Services Field - Supervision	-	-	-
Gwen R. Marelli	1FC003	Customer Services Field - Dispatch	-	-	-
Gwen R. Marelli	1FC004	Customer Services Field - Support	-	-	-
Total			-	-	-
Lisa C. Davidson	1IN001	Residential Customer Services	-	-	-
Lisa C. Davidson	1IN002	Business Services	-	-	-
Lisa C. Davidson	1IN003	Marketing Research & Analytics	-	-	-
Lisa C. Davidson	1IN004	Customer Programs Pricing and Other Office	164	201	217
Total			164	201	217
Jerry D. Stewart	1OO001	Advanced Metering Ops	-	-	-
Jerry D. Stewart	1OO002	Billing	-	-	-
Jerry D. Stewart	1OO003	Credit & Collections	-	-	-
Jerry D. Stewart	1OO004	Remittance Processing	-	-	-
Jerry D. Stewart	1OO005	Branch Offices	-	-	-
Jerry D. Stewart	1OO006	CCC Operations	-	-	-
Jerry D. Stewart	1OO007	CCC Support	-	-	-
Jerry D. Stewart	1OO008	Customer Operations Support & Projects	-	-	-
Total			-	-	-
Total NSS			164	201	217
Lisa C. Davidson	2100-3434	Business Strategy and Development	11	11	12
Lisa C. Davidson	2100-3709	Low Emission Vehicle Program	-	-	-
Total			11	11	12
Gwen R. Marelli	2100-3511	Customer Services Continuous Improvement Manager	-	-	-
Total			-	-	-
Total SS			11	11	12
Total Customer Services Generation			\$ 175	\$ 212	\$ 229

TABLE KN-30
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
CUSTOMER SERVICES GAS
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Gwen R. Marelli	1FC001	Customer Services Field - Operations	11,559	13,900	15,103
Gwen R. Marelli	1FC002	Customer Services Field - Supervision	990	1,138	1,238
Gwen R. Marelli	1FC003	Customer Services Field - Dispatch	2,056	1,852	2,015
Gwen R. Marelli	1FC004	Customer Services Field - Support	2,005	1,901	2,061
		Total	16,610	18,792	20,416
Lisa C. Davidson	1IN001	Residential Customer Services	663	790	848
Lisa C. Davidson	1IN002	Business Services	719	687	743
Lisa C. Davidson	1IN003	Marketing Research & Analytics	784	1,080	1,155
Lisa C. Davidson	1IN004	Customer Programs Pricing and Other Office	1,100	1,349	1,457
		Total	3,266	3,905	4,203
Jerry D. Stewart	1OO001	Advanced Metering Ops	378	465	504
Jerry D. Stewart	1OO002	Billing	1,496	2,816	3,020
Jerry D. Stewart	1OO003	Credit & Collections	922	1,079	1,165
Jerry D. Stewart	1OO004	Remittance Processing	1,736	1,615	1,630
Jerry D. Stewart	1OO005	Branch Offices	695	775	834
Jerry D. Stewart	1OO006	CCC Operations	3,137	3,544	3,854
Jerry D. Stewart	1OO007	CCC Support	979	940	1,009
Jerry D. Stewart	1OO008	Customer Operations Support & Projects	889	1,027	1,116
		Total	10,232	12,261	13,133
		Total NSS	30,108	34,958	37,752
Lisa C. Davidson	2100-3434	Business Strategy and Development	59	59	63
Lisa C. Davidson	2100-3709	Low Emission Vehicle Program	13	13	14
		Total	72	72	77
Gwen R. Marelli	2100-3511	Customer Services Continuous Improvement Manager	-	-	-
		Total	-	-	-
		Total SS	72	72	77
		Total Customer Services Gas	\$ 30,180	\$ 35,031	\$ 37,829

TABLE KN-31
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
INFORMATION TECHNOLOGY COMBINED
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Christopher R. Olmsted	1IT001	IT Applications NSS	14,114	17,489	18,637
Christopher R. Olmsted	1IT002	IT Infrastructure NSS	3,650	15,198	15,939
Christopher R. Olmsted	1IT003	IT Support NSS	(2)	(2,946)	(3,101)
		Total NSS	17,762	29,741	31,475
Christopher R. Olmsted	2100-0207	TELECOM FIELD VOICE - SDGE	2,044	2,045	2,189
Christopher R. Olmsted	2100-3071	SAP ACCOUNTING & FINANCIAL SYSTEMS	1,619	1,620	1,734
Christopher R. Olmsted	2100-3072	SUPPLY CHAIN & LOGISTICS SYSTEMS	1,573	1,573	1,684
Christopher R. Olmsted	2100-3073	ENTERPRISE INTEGRATION SERVICES	1,654	1,653	1,770
Christopher R. Olmsted	2100-3074	SSDS PROJECT OFFICE	653	654	700
Christopher R. Olmsted	2100-3088	SOFTWARE DEV - WORK MEAS SYSTEMS	326	325	348
Christopher R. Olmsted	2100-3089	BUSINESS INTELLIGENCE GROUP	894	894	958
Christopher R. Olmsted	2100-3091	SOFTWARE DEV - DATABASE ADMINISTRATOR	2,069	2,069	2,215
Christopher R. Olmsted	2100-3095	NETWORK COMMUNICATION SERVICES DIRECTOR	34	34	36
Christopher R. Olmsted	2100-3097	CLIENT TECHNOLOGY & DEPOT SERVICES	1,655	1,655	1,772
Christopher R. Olmsted	2100-3099	DESKTOP HARDWARE	1	(1)	(1)
Christopher R. Olmsted	2100-3100	MIDDLEWARE AND INTERNET ENGINEERING	570	569	609
Christopher R. Olmsted	2100-3102	INFRASTRUCTURE ENG & OPS DIRECTOR	309	607	650
Christopher R. Olmsted	2100-3106	NETWORK/TELECOM SERVICES - SDG&E	5,703	5,947	6,367
Christopher R. Olmsted	2100-3107	ENTERPRISE OPERATIONS	2	2	2
Christopher R. Olmsted	2100-3161	CHIEF ADMIN OFFICER	596	595	637
Christopher R. Olmsted	2100-3317	IT ACCOUNT MANAGEMENT	672	671	718
Christopher R. Olmsted	2100-3334	SERVER MANAGEMENT	888	888	951
Christopher R. Olmsted	2100-3498	INFRASTRUCTURE PROGRAM OFFICE	369	368	394
Christopher R. Olmsted	2100-3500	IT NETWORK FIELD - LAN/WAN VOICE	(4)	1	1
Christopher R. Olmsted	2100-3502	ENTERPRISE COMMAND CENTER	2,087	2,087	2,234
Christopher R. Olmsted	2100-3623	SHARED SOFTWARE DEVELOPMENT CONTRACTS	5,278	6,252	6,693
Christopher R. Olmsted	2100-3683	PROJECT IMPROVEMENT OFFICE-NCS	217	216	232

TABLE KN-31
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
INFORMATION TECHNOLOGY COMBINED
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Christopher R. Olmsted	2100-3684	SERVICE DELIVERY - NCS	768	767	822
Christopher R. Olmsted	2100-3698	SERVICE DEVELOPMENT PROGRAM MANAGEMENT	293	293	314
Christopher R. Olmsted	2100-3699	CUSTOMER ANALYTICS SYSTEM	486	486	521
Christopher R. Olmsted	2100-3713	FIELD FORCE PROGRAM DELIVERY TEAM	55	55	59
Christopher R. Olmsted	2100-3733	SVP & CITO	1,241	844	904
Christopher R. Olmsted	2100-3807	ENTERPRISE FINANCIAL & OPS SOLUTION	150	151	161
Christopher R. Olmsted	2100-3814	DIRECTOR IT INFRASTRUCTURE	864	1,098	1,176
Christopher R. Olmsted	2100-3824	INFRASTR PRGRM OFFICE	898	758	811
Christopher R. Olmsted	2100-3842	IT ASSOCIATE PROGRAM	1,353	1,353	1,448
Christopher R. Olmsted	2100-3848	CUSTOMER ANALYTICS SYSTEM	670	670	717
Christopher R. Olmsted	2100-3855	CLINT SERVICES MAINTENANCE & SUPPORT	2	2	2
Christopher R. Olmsted	2100-3856	VOICE LEASED CIRCUITS	2,328	974	1,043
Christopher R. Olmsted	2100-3884	MGD SVC VOICE ENTERP	832	2,397	2,566
Christopher R. Olmsted	2100-3885	VOICE ENTERP SUPPORT	503	502	538
Christopher R. Olmsted	2100-3888	IT PORTFOLIO MANAGEMENT	68	67	72
Christopher R. Olmsted	2100-3900	IT PORTFOLIO MANAGEMENT	288	288	308
Christopher R. Olmsted	2100-3916	BI & ANALYTICS ENGINEERING-SAS CONTRACTS	4,045	4,818	5,158
Christopher R. Olmsted	2100-3921	IT&OTI CONTRACTS SS	9,812	10,438	11,174
Christopher R. Olmsted	2100-3924	BI & ANALYTICS OPS-SAP CONTRACTS	1,233	1,468	1,571
Christopher R. Olmsted	2100-3926	IT Communications	162	193	206
Christopher R. Olmsted	2100-3954	IT TELECOM PMO	89	88	94
Christopher R. Olmsted	2100-3975	SDGE NETWORK ENGINEERING	275	274	294
Christopher R. Olmsted	2100-3979	SCG IT INFRA SERVICES - DIRECTOR	-	0	0
Total			55,624	58,709	62,854
Gavin H. Worden	2100-3101	SECURITY POLICY AND AWARENESS	957	957	1,024
Gavin H. Worden	2100-3763	DIRECTOR - INFORMATION SECURITY	367	367	393
Gavin H. Worden	2100-3774	SECURITY ENGINEERING	993	1,434	1,535
Gavin H. Worden	2100-3775	SECURITY OPERATIONS	1,642	1,757	1,881
Gavin H. Worden	2100-3781	CRITICAL INFRASTRUCTURE PROTECTION	2,587	3,370	3,370
Gavin H. Worden	2100-3976	INFORMATION SECURITY PROGRAMS	22	22	24
Total			6,568	7,907	8,227
Total SS			62,192	66,616	71,081
Total IT			\$ 79,954	\$ 96,357	\$ 102,556

TABLE KN-32
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
INFORMATION TECHNOLOGY ELECTRIC DEPARTMENT
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Christopher R. Olmsted	1IT001	IT Applications NSS	9,799	12,143	12,923
Christopher R. Olmsted	1IT002	IT Infrastructue NSS	2,748	11,444	11,987
Christopher R. Olmsted	1IT003	IT Support NSS	(2)	(2,218)	(2,330)
Total			12,546	21,368	22,580
Christopher R. Olmsted	2100-0207	TELECOM FIELD VOICE - SDGE	1,539	1,540	1,649
Christopher R. Olmsted	2100-3071	SAP ACCOUNTING & FINANCIAL SYSTEMS	1,219	1,220	1,306
Christopher R. Olmsted	2100-3072	SUPPLY CHAIN & LOGISTICS SYSTEMS	1,184	1,184	1,268
Christopher R. Olmsted	2100-3073	ENTERPRISE INTEGRATION SERVICES	1,245	1,245	1,333
Christopher R. Olmsted	2100-3074	SSDS PROJECT OFFICE	492	492	527
Christopher R. Olmsted	2100-3088	SOFTWARE DEV - WORK MEAS SYSTEMS	245	245	262
Christopher R. Olmsted	2100-3089	BUSINESS INTELLIGENCE GROUP	673	673	721
Christopher R. Olmsted	2100-3091	SOFTWARE DEV - DATABASE ADMINISTRATOR	1,558	1,558	1,668
Christopher R. Olmsted	2100-3095	NETORK COMMUNICATION SERVICES DIRECTOR	26	25	27
Christopher R. Olmsted	2100-3097	CLIENT TECHNOLOGY & DEPOT SERVICES	1,246	1,246	1,334
Christopher R. Olmsted	2100-3099	DESKTOP HARDWARE	1	(1)	(1)
Christopher R. Olmsted	2100-3100	MIDDLEWARE AND INTERNET ENGINEERING	429	429	459
Christopher R. Olmsted	2100-3102	INFRASTRUCTURE ENG & OPS DIRECTOR	233	457	489
Christopher R. Olmsted	2100-3106	NETWORK/TELECOM SERVICES - SDG&E	4,244	4,426	4,738
Christopher R. Olmsted	2100-3107	ENTERPRISE OPERATIONS	2	1	2
Christopher R. Olmsted	2100-3161	CHIEF ADMIN OFFICER	449	448	480
Christopher R. Olmsted	2100-3317	IT ACCOUNT MANAGEMENT	506	505	541
Christopher R. Olmsted	2100-3334	SERVER MANAGEMENT	669	669	716
Christopher R. Olmsted	2100-3498	INFRASTRUCTURE PROGRAM OFFICE	278	277	297
Christopher R. Olmsted	2100-3500	IT NETWORK FIELD - LAN/WAN VOICE	(3)	0	0
Christopher R. Olmsted	2100-3502	ENTERPRISE COMMAND CENTER	1,572	1,572	1,682
Christopher R. Olmsted	2100-3623	SHARED SOFTWARE DEVELOPMENT CONTRACTS	3,974	4,708	5,040
Christopher R. Olmsted	2100-3683	PROJECT IMPROVEMENT OFFICE-NCS	163	163	174

TABLE KN-32
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
INFORMATION TECHNOLOGY ELECTRIC DEPARTMENT
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Christopher R. Olmsted	2100-3684	SERVICE DELIVERY - NCS	578	578	619
Christopher R. Olmsted	2100-3698	SERVICE DEVELOPMENT PROGRAM MANAGEMENT	221	221	236
Christopher R. Olmsted	2100-3699	CUSTOMER ANALYTICS SYSTEM	366	366	392
Christopher R. Olmsted	2100-3713	FIELD FORCE PROGRAM DELIVERY TEAM	41	41	44
Christopher R. Olmsted	2100-3733	SVP & CITO	934	636	680
Christopher R. Olmsted	2100-3807	ENTERPRISE FINANCIAL & OPS SOLUTION	113	113	121
Christopher R. Olmsted	2100-3814	DIRECTOR IT INFRASTRUCTURE	651	827	885
Christopher R. Olmsted	2100-3824	INFRASTR PRGRM OFFICE	676	570	611
Christopher R. Olmsted	2100-3842	IT ASSOCIATE PROGRAM	1,019	1,019	1,091
Christopher R. Olmsted	2100-3848	CUSTOMER ANALYTICS SYSTEM	505	505	540
Christopher R. Olmsted	2100-3855	CLINT SERVICES MAINTENANCE & SUPPORT	2	2	2
Christopher R. Olmsted	2100-3856	VOICE LEASED CIRCUITS	1,753	734	786
Christopher R. Olmsted	2100-3884	MGD SVC VOICE ENTERP	626	1,805	1,932
Christopher R. Olmsted	2100-3885	VOICE ENTERP SUPPORT	379	378	405
Christopher R. Olmsted	2100-3888	IT PORTFOLIO MANAGEMENT	51	51	54
Christopher R. Olmsted	2100-3900	IT PORTFOLIO MANAGEMENT	217	217	232
Christopher R. Olmsted	2100-3916	BI & ANALYTICS ENGINEERING-SAS CONTRACTS	3,046	3,628	3,884
Christopher R. Olmsted	2100-3921	IT&OTI CONTRACTS SS	7,388	7,860	8,414
Christopher R. Olmsted	2100-3924	BI & ANALYTICS OPS-SAP CONTRACTS	928	1,105	1,183
Christopher R. Olmsted	2100-3926	IT Communications	122	145	155
Christopher R. Olmsted	2100-3954	IT TELECOM PMO	67	66	71
Christopher R. Olmsted	2100-3975	SDGE NETWORK ENGINEERING	207	207	221
Christopher R. Olmsted	2100-3979	SCG IT INFRA SERVICES - DIRECTOR	-	0	0
Total			41,835	44,156	47,273
Gavin H. Worden	2100-3101	SECURITY POLICY AND AWARENESS	721	721	771
Gavin H. Worden	2100-3763	DIRECTOR - INFORMATION SECURITY	276	276	296
Gavin H. Worden	2100-3774	SECURITY ENGINEERING	748	1,080	1,156
Gavin H. Worden	2100-3775	SECURITY OPERATIONS	1,236	1,323	1,416
Gavin H. Worden	2100-3781	CRITICAL INFRASTRUCTURE PROTECTION	1,948	2,538	2,538
Gavin H. Worden	2100-3976	INFORMATION SECURITY PROGRAMS	17	17	18
Total			4,946	5,954	6,195
Total SS			46,781	50,109	53,468
Total IT Electric Department			\$ 59,327	\$ 71,478	\$ 76,048

TABLE KN-33
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
INFORMATION TECHNOLOGY ELECTRIC DISTRIBUTION
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Christopher R. Olmsted	1IT001	IT Applications NSS	9,523	11,800	12,558
Christopher R. Olmsted	1IT002	IT Infrastructure NSS	2,584	10,760	11,270
Christopher R. Olmsted	1IT003	IT Support NSS	(1)	(2,086)	(2,191)
Total			12,106	20,474	21,638
Christopher R. Olmsted	2100-0207	TELECOM FIELD VOICE - SDGE	1,447	1,448	1,550
Christopher R. Olmsted	2100-3071	SAP ACCOUNTING & FINANCIAL SYSTEMS	1,146	1,147	1,228
Christopher R. Olmsted	2100-3072	SUPPLY CHAIN & LOGISTICS SYSTEMS	1,114	1,113	1,192
Christopher R. Olmsted	2100-3073	ENTERPRISE INTEGRATION SERVICES	1,171	1,171	1,253
Christopher R. Olmsted	2100-3074	SSDS PROJECT OFFICE	462	463	495
Christopher R. Olmsted	2100-3088	SOFTWARE DEV - WORK MEAS SYSTEMS	231	230	246
Christopher R. Olmsted	2100-3089	BUSINESS INTELLIGENCE GROUP	633	633	678
Christopher R. Olmsted	2100-3091	SOFTWARE DEV - DATABASE ADMINISTRATOR	1,465	1,465	1,568
Christopher R. Olmsted	2100-3095	NETWORK COMMUNICATION SERVICES DIRECTOR	24	24	26
Christopher R. Olmsted	2100-3097	CLIENT TECHNOLOGY & DEPOT SERVICES	1,172	1,172	1,255
Christopher R. Olmsted	2100-3099	DESKTOP HARDWARE	1	(0)	(1)
Christopher R. Olmsted	2100-3100	MIDDLEWARE AND INTERNET ENGINEERING	404	403	431
Christopher R. Olmsted	2100-3102	INFRASTRUCTURE ENG & OPS DIRECTOR	219	430	460
Christopher R. Olmsted	2100-3106	NETWORK/TELECOM SERVICES - SDG&E	4,009	4,181	4,476
Christopher R. Olmsted	2100-3107	ENTERPRISE OPERATIONS	1	1	1
Christopher R. Olmsted	2100-3161	CHIEF ADMIN OFFICER	422	421	451
Christopher R. Olmsted	2100-3317	IT ACCOUNT MANAGEMENT	476	475	508
Christopher R. Olmsted	2100-3334	SERVER MANAGEMENT	629	629	673
Christopher R. Olmsted	2100-3498	INFRASTRUCTURE PROGRAM OFFICE	261	261	279
Christopher R. Olmsted	2100-3500	IT NETWORK FIELD - LAN/WAN VOICE	(3)	0	0
Christopher R. Olmsted	2100-3502	ENTERPRISE COMMAND CENTER	1,478	1,478	1,582
Christopher R. Olmsted	2100-3623	SHARED SOFTWARE DEVELOPMENT CONTRACTS	3,737	4,426	4,739
Christopher R. Olmsted	2100-3683	PROJECT IMPROVEMENT OFFICE-NCS	154	153	164

TABLE KN-33
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
INFORMATION TECHNOLOGY ELECTRIC DISTRIBUTION
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Christopher R. Olmsted	2100-3684	SERVICE DELIVERY - NCS	544	543	582
Christopher R. Olmsted	2100-3698	SERVICE DEVELOPMENT PROGRAM MANAGEMENT	207	208	222
Christopher R. Olmsted	2100-3699	CUSTOMER ANALYTICS SYSTEM	344	344	369
Christopher R. Olmsted	2100-3713	FIELD FORCE PROGRAM DELIVERY TEAM	39	39	42
Christopher R. Olmsted	2100-3733	SVP & CITO	879	598	640
Christopher R. Olmsted	2100-3807	ENTERPRISE FINANCIAL & OPS SOLUTION	106	107	114
Christopher R. Olmsted	2100-3814	DIRECTOR IT INFRASTRUCTURE	612	778	832
Christopher R. Olmsted	2100-3824	INFRASTR PRGRM OFFICE	636	536	574
Christopher R. Olmsted	2100-3842	IT ASSOCIATE PROGRAM	958	958	1,025
Christopher R. Olmsted	2100-3848	CUSTOMER ANALYTICS SYSTEM	474	474	508
Christopher R. Olmsted	2100-3855	CLINT SERVICES MAINTENANCE & SUPPORT	1	2	2
Christopher R. Olmsted	2100-3856	VOICE LEASED CIRCUITS	1,648	690	739
Christopher R. Olmsted	2100-3884	MGD SVC VOICE ENTERP	589	1,697	1,817
Christopher R. Olmsted	2100-3885	VOICE ENTERP SUPPORT	356	356	381
Christopher R. Olmsted	2100-3888	IT PORTFOLIO MANAGEMENT	48	48	51
Christopher R. Olmsted	2100-3900	IT PORTFOLIO MANAGEMENT	204	204	218
Christopher R. Olmsted	2100-3916	BI & ANALYTICS ENGINEERING-SAS CONTRACTS	2,864	3,411	3,652
Christopher R. Olmsted	2100-3921	IT&OTI CONTRACTS SS	6,947	7,390	7,912
Christopher R. Olmsted	2100-3924	BI & ANALYTICS OPS-SAP CONTRACTS	873	1,039	1,113
Christopher R. Olmsted	2100-3926	IT Communications	115	137	146
Christopher R. Olmsted	2100-3954	IT TELECOM PMO	63	62	67
Christopher R. Olmsted	2100-3975	SDGE NETWORK ENGINEERING	195	194	208
Christopher R. Olmsted	2100-3979	SCG IT INFRA SERVICES - DIRECTOR	-	0	0
Total			39,353	41,536	44,469
Gavin H. Worden	2100-3101	SECURITY POLICY AND AWARENESS	678	677	725
Gavin H. Worden	2100-3763	DIRECTOR - INFORMATION SECURITY	260	260	278
Gavin H. Worden	2100-3774	SECURITY ENGINEERING	703	1,015	1,087
Gavin H. Worden	2100-3775	SECURITY OPERATIONS	1,163	1,244	1,332
Gavin H. Worden	2100-3781	CRITICAL INFRASTRUCTURE PROTECTION	1,832	2,386	2,386
Gavin H. Worden	2100-3976	INFORMATION SECURITY PROGRAMS	16	16	17
Total			4,650	5,598	5,825
Total SS			44,004	47,134	50,294
Total IT Electric Distribution			\$ 56,109	\$ 67,609	\$ 71,931

TABLE KN-34
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
INFORMATION TECHNOLOGY GENERATION
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Christopher R. Olmsted	1IT001	IT Applications NSS	277	343	365
Christopher R. Olmsted	1IT002	IT Infrastructue NSS	164	684	716
Christopher R. Olmsted	1IT003	IT Support NSS	(0)	(133)	(139)
Total			441	894	942
Christopher R. Olmsted	2100-0207	TELECOM FIELD VOICE - SDGE	92	92	99
Christopher R. Olmsted	2100-3071	SAP ACCOUNTING & FINANCIAL SYSTEMS	73	73	78
Christopher R. Olmsted	2100-3072	SUPPLY CHAIN & LOGISTICS SYSTEMS	71	71	76
Christopher R. Olmsted	2100-3073	ENTERPRISE INTEGRATION SERVICES	74	74	80
Christopher R. Olmsted	2100-3074	SSDS PROJECT OFFICE	29	29	31
Christopher R. Olmsted	2100-3088	SOFTWARE DEV - WORK MEAS SYSTEMS	15	15	16
Christopher R. Olmsted	2100-3089	BUSINESS INTELLIGENCE GROUP	40	40	43
Christopher R. Olmsted	2100-3091	SOFTWARE DEV - DATABASE ADMINISTRATOR	93	93	100
Christopher R. Olmsted	2100-3095	NETORK COMMUNICATION SERVICES DIRECTOR	2	2	2
Christopher R. Olmsted	2100-3097	CLIENT TECHNOLOGY & DEPOT SERVICES	74	74	80
Christopher R. Olmsted	2100-3099	DESKTOP HARDWARE	0	(0)	(0)
Christopher R. Olmsted	2100-3100	MIDDLEWARE AND INTERNET ENGINEERING	26	26	27
Christopher R. Olmsted	2100-3102	INFRASTRUCTURE ENG & OPS DIRECTOR	14	27	29
Christopher R. Olmsted	2100-3106	NETWORK/TELECOM SERVICES - SDG&E	235	245	262
Christopher R. Olmsted	2100-3107	ENTERPRISE OPERATIONS	0	0	0
Christopher R. Olmsted	2100-3161	CHIEF ADMIN OFFICER	27	27	29
Christopher R. Olmsted	2100-3317	IT ACCOUNT MANAGEMENT	30	30	32
Christopher R. Olmsted	2100-3334	SERVER MANAGEMENT	40	40	43
Christopher R. Olmsted	2100-3498	INFRASTRUCTURE PROGRAM OFFICE	17	17	18
Christopher R. Olmsted	2100-3500	IT NETWORK FIELD - LAN/WAN VOICE	(0)	0	0
Christopher R. Olmsted	2100-3502	ENTERPRISE COMMAND CENTER	94	94	101
Christopher R. Olmsted	2100-3623	SHARED SOFTWARE DEVELOPMENT CONTRACTS	238	281	301
Christopher R. Olmsted	2100-3683	PROJECT IMPROVEMENT OFFICE-NCS	10	10	10

TABLE KN-34
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
INFORMATION TECHNOLOGY GENERATION
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Christopher R. Olmsted	2100-3684	SERVICE DELIVERY - NCS	35	35	37
Christopher R. Olmsted	2100-3698	SERVICE DEVELOPMENT PROGRAM MANAGEMENT	13	13	14
Christopher R. Olmsted	2100-3699	CUSTOMER ANALYTICS SYSTEM	22	22	23
Christopher R. Olmsted	2100-3713	FIELD FORCE PROGRAM DELIVERY TEAM	2	2	3
Christopher R. Olmsted	2100-3733	SVP & CITO	56	38	41
Christopher R. Olmsted	2100-3807	ENTERPRISE FINANCIAL & OPS SOLUTION	7	7	7
Christopher R. Olmsted	2100-3814	DIRECTOR IT INFRASTRUCTURE	39	49	53
Christopher R. Olmsted	2100-3824	INFRASTR PRGRM OFFICE	40	34	36
Christopher R. Olmsted	2100-3842	IT ASSOCIATE PROGRAM	61	61	65
Christopher R. Olmsted	2100-3848	CUSTOMER ANALYTICS SYSTEM	30	30	32
Christopher R. Olmsted	2100-3855	CLINT SERVICES MAINTENANCE & SUPPORT	0	0	0
Christopher R. Olmsted	2100-3856	VOICE LEASED CIRCUITS	105	44	47
Christopher R. Olmsted	2100-3884	MGD SVC VOICE ENTERP	37	108	115
Christopher R. Olmsted	2100-3885	VOICE ENTERP SUPPORT	23	23	24
Christopher R. Olmsted	2100-3888	IT PORTFOLIO MANAGEMENT	3	3	3
Christopher R. Olmsted	2100-3900	IT PORTFOLIO MANAGEMENT	13	13	14
Christopher R. Olmsted	2100-3916	BI & ANALYTICS ENGINEERING-SAS CONTRACTS	182	217	232
Christopher R. Olmsted	2100-3921	IT&OTI CONTRACTS SS	442	470	503
Christopher R. Olmsted	2100-3924	BI & ANALYTICS OPS-SAP CONTRACTS	55	66	71
Christopher R. Olmsted	2100-3926	IT Communications	7	9	9
Christopher R. Olmsted	2100-3954	IT TELECOM PMO	4	4	4
Christopher R. Olmsted	2100-3975	SDGE NETWORK ENGINEERING	12	12	13
Christopher R. Olmsted	2100-3979	SCG IT INFRA SERVICES - DIRECTOR	-	0	0
Total			2,481	2,619	2,804
Gavin H. Worden	2100-3101	SECURITY POLICY AND AWARENESS	43	43	46
Gavin H. Worden	2100-3763	DIRECTOR - INFORMATION SECURITY	17	17	18
Gavin H. Worden	2100-3774	SECURITY ENGINEERING	45	65	69
Gavin H. Worden	2100-3775	SECURITY OPERATIONS	74	79	85
Gavin H. Worden	2100-3781	CRITICAL INFRASTRUCTURE PROTECTION	116	152	152
Gavin H. Worden	2100-3976	INFORMATION SECURITY PROGRAMS	1	1	1
Total			296	356	370
Total SS			2,777	2,975	3,174
Total IT Generation			\$ 3,218	\$ 3,869	\$ 4,116

TABLE KN-35
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
INFORMATION TECHNOLOGY GAS
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Christopher R. Olmsted	1IT001	IT Applications NSS	4,315	5,346	5,713
Christopher R. Olmsted	1IT002	IT Infrastructue NSS	902	3,754	3,953
Christopher R. Olmsted	1IT003	IT Support NSS	(0)	(728)	(770)
Total			5,216	8,373	8,896
Christopher R. Olmsted	2100-0207	TELECOM FIELD VOICE - SDGE	505	505	541
Christopher R. Olmsted	2100-3071	SAP ACCOUNTING & FINANCIAL SYSTEMS	400	400	428
Christopher R. Olmsted	2100-3072	SUPPLY CHAIN & LOGISTICS SYSTEMS	389	388	416
Christopher R. Olmsted	2100-3073	ENTERPRISE INTEGRATION SERVICES	409	408	437
Christopher R. Olmsted	2100-3074	SSDS PROJECT OFFICE	161	161	173
Christopher R. Olmsted	2100-3088	SOFTWARE DEV - WORK MEAS SYSTEMS	81	80	86
Christopher R. Olmsted	2100-3089	BUSINESS INTELLIGENCE GROUP	221	221	237
Christopher R. Olmsted	2100-3091	SOFTWARE DEV - DATABASE ADMINISTRATOR	511	511	547
Christopher R. Olmsted	2100-3095	NETORK COMMUNICATION SERVICES DIRECTOR	8	8	9
Christopher R. Olmsted	2100-3097	CLIENT TECHNOLOGY & DEPOT SERVICES	409	409	438
Christopher R. Olmsted	2100-3099	DESKTOP HARDWARE	0	(0)	(0)
Christopher R. Olmsted	2100-3100	MIDDLEWARE AND INTERNET ENGINEERING	141	141	151
Christopher R. Olmsted	2100-3102	INFRASTRUCTURE ENG & OPS DIRECTOR	76	150	160
Christopher R. Olmsted	2100-3106	NETWORK/TELECOM SERVICES - SDG&E	1,459	1,521	1,628
Christopher R. Olmsted	2100-3107	ENTERPRISE OPERATIONS	0	0	1
Christopher R. Olmsted	2100-3161	CHIEF ADMIN OFFICER	147	147	157
Christopher R. Olmsted	2100-3317	IT ACCOUNT MANAGEMENT	166	166	177
Christopher R. Olmsted	2100-3334	SERVER MANAGEMENT	219	219	235
Christopher R. Olmsted	2100-3498	INFRASTRUCTURE PROGRAM OFFICE	91	91	97
Christopher R. Olmsted	2100-3500	IT NETWORK FIELD - LAN/WAN VOICE	(1)	0	0
Christopher R. Olmsted	2100-3502	ENTERPRISE COMMAND CENTER	515	515	552
Christopher R. Olmsted	2100-3623	SHARED SOFTWARE DEVELOPMENT CONTRACTS	1,304	1,544	1,653
Christopher R. Olmsted	2100-3683	PROJECT IMPROVEMENT OFFICE-NCS	54	53	57

TABLE KN-35
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
INFORMATION TECHNOLOGY GAS
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Christopher R. Olmsted	2100-3684	SERVICE DELIVERY - NCS	190	190	203
Christopher R. Olmsted	2100-3698	SERVICE DEVELOPMENT PROGRAM MANAGEMENT	72	72	78
Christopher R. Olmsted	2100-3699	CUSTOMER ANALYTICS SYSTEM	120	120	129
Christopher R. Olmsted	2100-3713	FIELD FORCE PROGRAM DELIVERY TEAM	14	14	15
Christopher R. Olmsted	2100-3733	SVP & CITO	307	208	223
Christopher R. Olmsted	2100-3807	ENTERPRISE FINANCIAL & OPS SOLUTION	37	37	40
Christopher R. Olmsted	2100-3814	DIRECTOR IT INFRASTRUCTURE	213	271	290
Christopher R. Olmsted	2100-3824	INFRASTR PRGRM OFFICE	222	187	200
Christopher R. Olmsted	2100-3842	IT ASSOCIATE PROGRAM	334	334	358
Christopher R. Olmsted	2100-3848	CUSTOMER ANALYTICS SYSTEM	165	166	177
Christopher R. Olmsted	2100-3855	CLINT SERVICES MAINTENANCE & SUPPORT	0	1	1
Christopher R. Olmsted	2100-3856	VOICE LEASED CIRCUITS	575	241	258
Christopher R. Olmsted	2100-3884	MGD SVC VOICE ENTERP	206	592	634
Christopher R. Olmsted	2100-3885	VOICE ENTERP SUPPORT	124	124	133
Christopher R. Olmsted	2100-3888	IT PORTFOLIO MANAGEMENT	17	17	18
Christopher R. Olmsted	2100-3900	IT PORTFOLIO MANAGEMENT	71	71	76
Christopher R. Olmsted	2100-3916	BI & ANALYTICS ENGINEERING-SAS CONTRACTS	999	1,190	1,274
Christopher R. Olmsted	2100-3921	IT&OTI CONTRACTS SS	2,424	2,578	2,760
Christopher R. Olmsted	2100-3924	BI & ANALYTICS OPS-SAP CONTRACTS	305	363	388
Christopher R. Olmsted	2100-3926	IT Communications	40	48	51
Christopher R. Olmsted	2100-3954	IT TELECOM PMO	22	22	23
Christopher R. Olmsted	2100-3975	SDGE NETWORK ENGINEERING	68	68	73
Christopher R. Olmsted	2100-3979	SCG IT INFRA SERVICES - DIRECTOR	-	0	0
Total			13,789	14,553	15,581
Gavin H. Worden	2100-3101	SECURITY POLICY AND AWARENESS	236	236	253
Gavin H. Worden	2100-3763	DIRECTOR - INFORMATION SECURITY	91	91	97
Gavin H. Worden	2100-3774	SECURITY ENGINEERING	245	354	379
Gavin H. Worden	2100-3775	SECURITY OPERATIONS	406	434	465
Gavin H. Worden	2100-3781	CRITICAL INFRASTRUCTURE PROTECTION	639	832	832
Gavin H. Worden	2100-3976	INFORMATION SECURITY PROGRAMS	5	5	6
Total			1,622	1,953	2,032
Total SS			15,411	16,506	17,613
Total IT Gas			\$ 20,627	\$ 24,879	\$ 26,509

TABLE KN-36
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
SUPPORT SERVICES COMBINED
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Nancy C. Clancy	1EV000	ENVIRONMENTAL SDGE NSS Cost Center	5,021	4,016	4,314
Nancy C. Clancy	1EV001	RNERBA-AB32 Fees-Electric	287	303	318
Nancy C. Clancy	1EV002	RNERBA-AB32 Fees-Gas	517	532	563
		Environmental Total	5,825	4,851	5,196
Richard D. Tattersall	1RE001	SDGE Facility Operations	8,307	8,378	8,860
Richard D. Tattersall	1RE002	Land Services	939	692	736
Richard D. Tattersall	1RE003	SDGE Rents	17,028	18,811	18,811
		Real Estate & Facilities Total	26,274	27,881	28,406
Carmen L. Herrera	1FS001	Amortization	10,116	24,489	24,489
Carmen L. Herrera	1FS002	Maintenance Operations	15,747	18,802	20,023
Carmen L. Herrera	1FS005	Maintenance Management	928	764	829
Carmen L. Herrera	1FS006	Director	(204)	(216)	(227)
		Fleet Total	26,587	43,839	45,114
Denita A. Willoughby	1SS001	Logistics Shops South - Pool Warehousing	3,781	4,119	4,478
Denita A. Willoughby	1SS003	Office Services	2,185	2,229	2,346
Denita A. Willoughby	1SS004	Logistics Shops South - Pool Purchasing	909	921	1,002
Denita A. Willoughby	1SS005	Supplier Diversity	854	1,142	1,224
Denita A. Willoughby	1SS006	Electric Portfolio	948	976	1,061
Denita A. Willoughby	1SS007	STRATEGY & SUSTAINABILITY	997	(304)	(318)
		Supply Management Total	9,674	9,083	9,792
		Total NSS	68,360	85,654	88,508
Nancy C. Clancy	2100-0632	ENVIRONMENTAL LAB OPERATIONS	1,092	660	707
Nancy C. Clancy	2100-3282	ENVIRONMENTAL COMMUNICATIONS	731	758	811

TABLE KN-36
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
SUPPORT SERVICES COMBINED
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Nancy C. Clancy	2100-3588	VP OPERATIONS SUPPORT	440	440	471
Nancy C. Clancy	2100-3589	ENVIRONMENTAL SERVICES DIRECTOR	249	250	267
		Environmental Total	2,512	2,107	2,256
Richard D. Tattersall	2100-0706	RE PLANNING	1,026	1,062	1,136
Richard D. Tattersall	2100-0708	HQ RENT & FACILITIES MAINTENANCE	2,791	2,662	2,850
Richard D. Tattersall	2100-3025	FACILITIES & CAPITAL PROGRAMS - ADMIN	147	129	138
Richard D. Tattersall	2100-3028	FACILITIES CORPORATE CENTER PROJECTS	26	37	40
Richard D. Tattersall	2100-3030	CORPORATE REAL ESTATE MANAGER	324	231	247
Richard D. Tattersall	2100-3303	RE RESOURCES	492	491	526
Richard D. Tattersall	2100-3323	FACILITIES OPERATIONS SOUTH MANAGER	559	492	526
Richard D. Tattersall	2100-3610	RB DATA CENTER & ANNEX	771	758	811
Richard D. Tattersall	2100-3714	DIRECTOR - REAL ESTATE & LAND SERVICES	352	415	444
Richard D. Tattersall	2100-3977	RE PLANNING-MAC	11	11	12
		Real Estate & Facilities Total	6,499	6,288	6,732
Carmen L. Herrera	2100-0203	SDGE FLEET ASSET	1,001	987	1,057
Carmen L. Herrera	2100-3411	FLEET SYSTEMS SUPPORT	261	388	415
Carmen L. Herrera	2100-3412	FLEET FINANCIAL SUPPORT	94	139	149
Carmen L. Herrera	2100-3952	FLEET PROJECTS & PROGRAMS	-	103	110
		Fleet Total	1,356	1,617	1,731
Denita A. Willoughby	2100-3013	SUPPLY MANAGEMENT DIRECTOR	550	1,111	1,189
Denita A. Willoughby	2100-3016	SUPPLY MANAGEMENT DIRECTOR	716	720	770
Denita A. Willoughby	2100-3018	SUPPLY MANAGEMENT DIRECTOR	273	226	242
Denita A. Willoughby	2100-3266	SUPPLY MANAGEMENT DIRECTOR	739	735	787
Denita A. Willoughby	2100-3331	SUPPLY MANAGEMENT DIRECTOR	893	803	859
Denita A. Willoughby	2100-3332	SUPPLY MANAGEMENT DIRECTOR	810	755	808
Denita A. Willoughby	2100-3407	SUPPLY MANAGEMENT DIRECTOR	277	339	363
		Supply Management Total	4,258	4,688	5,019
		Total SS	14,625	14,700	15,738
		Total Support Services	\$ 82,985	\$ 100,354	\$ 104,246

TABLE KN-37
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
SUPPORT SERVICES ELECTRIC DEPARTMENT
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Nancy C. Clancy	1EV000	ENVIRONMENTAL SDGE NSS Cost Center	4,320	3,455	3,710
Nancy C. Clancy	1EV001	RNERBA-AB32 Fees-Electric	287	303	318
Nancy C. Clancy	1EV002	RNERBA-AB32 Fees-Gas	-	-	-
Total			4,607	3,758	4,029
Richard D. Tattersall	1RE001	SDGE Facility Operations	6,255	6,309	6,661
Richard D. Tattersall	1RE002	Land Services	842	620	659
Richard D. Tattersall	1RE003	SDGE Rents	12,822	14,165	14,165
Total			19,919	21,094	21,485
Carmen L. Herrera	1FS001	Amortization	7,931	19,199	19,199
Carmen L. Herrera	1FS002	Maintenance Operations	12,346	14,741	15,683
Carmen L. Herrera	1FS005	Maintenance Management	728	599	650
Carmen L. Herrera	1FS006	Director	(160)	(169)	(178)
Total			20,844	34,370	35,354
Denita A. Willoughby	1SS001	Logistics Shops South - Pool Warehousing	3,441	3,748	4,075
Denita A. Willoughby	1SS003	Office Services	1,645	1,678	1,763
Denita A. Willoughby	1SS004	Logistics Shops South - Pool Purchasing	708	717	780
Denita A. Willoughby	1SS005	Supplier Diversity	665	890	953
Denita A. Willoughby	1SS006	Electric Portfolio	738	760	826
Denita A. Willoughby	1SS007	STRATEGY & SUSTAINABILITY	777	(237)	(248)
Total			7,975	7,557	8,150
Total NSS			53,344	66,779	69,018
Nancy C. Clancy	2100-0632	ENVIRONMENTAL LAB OPERATIONS	1,011	611	654
Nancy C. Clancy	2100-3282	ENVIRONMENTAL COMMUNICATIONS	550	571	611

TABLE KN-37
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
SUPPORT SERVICES ELECTRIC DEPARTMENT
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Nancy C. Clancy	2100-3588	VP OPERATIONS SUPPORT	331	331	355
Nancy C. Clancy	2100-3589	ENVIRONMENTAL SERVICES DIRECTOR	178	178	191
		Total	2,071	1,692	1,811
Richard D. Tattersall	2100-0706	RE PLANNING	773	799	856
Richard D. Tattersall	2100-0708	HQ RENT & FACILITIES MAINTENANCE	2,102	2,005	2,146
Richard D. Tattersall	2100-3025	FACILITIES & CAPITAL PROGRAMS - ADMIN	111	97	104
Richard D. Tattersall	2100-3028	FACILITIES CORPORATE CENTER PROJECTS	20	28	30
Richard D. Tattersall	2100-3030	CORPORATE REAL ESTATE MANAGER	204	145	155
Richard D. Tattersall	2100-3303	RE RESOURCES	370	370	396
Richard D. Tattersall	2100-3323	FACILITIES OPERATIONS SOUTH MANAGER	416	366	392
Richard D. Tattersall	2100-3610	RB DATA CENTER & ANNEX	581	570	611
Richard D. Tattersall	2100-3714	DIRECTOR - REAL ESTATE & LAND SERVICES	265	312	335
Richard D. Tattersall	2100-3977	RE PLANNING-MAC	8	9	9
		Total	4,849	4,702	5,034
Carmen L. Herrera	2100-0203	SDGE FLEET ASSET	785	774	829
Carmen L. Herrera	2100-3411	FLEET SYSTEMS SUPPORT	205	304	325
Carmen L. Herrera	2100-3412	FLEET FINANCIAL SUPPORT	74	109	117
Carmen L. Herrera	2100-3952	FLEET PROJECTS & PROGRAMS	-	81	86
		Total	1,063	1,268	1,357
Denita A. Willoughby	2100-3013	SUPPLY MANAGEMENT DIRECTOR	428	865	926
Denita A. Willoughby	2100-3016	SUPPLY MANAGEMENT DIRECTOR	558	561	600
Denita A. Willoughby	2100-3018	SUPPLY MANAGEMENT DIRECTOR	206	170	182
Denita A. Willoughby	2100-3266	SUPPLY MANAGEMENT DIRECTOR	556	554	593
Denita A. Willoughby	2100-3331	SUPPLY MANAGEMENT DIRECTOR	694	624	668
Denita A. Willoughby	2100-3332	SUPPLY MANAGEMENT DIRECTOR	631	588	630
Denita A. Willoughby	2100-3407	SUPPLY MANAGEMENT DIRECTOR	195	239	256
		Total	3,269	3,600	3,855
		Total SS	11,252	11,262	12,057
		Total Support Services Electric Department	\$ 64,596	\$ 78,040	\$ 81,075

TABLE KN-38
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
SUPPORT SERVICES ELECTRIC DISTRIBUTION
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Nancy C. Clancy	1EV000	ENVIRONMENTAL SDGE NSS Cost Center	4,192	3,353	3,601
Nancy C. Clancy	1EV001	RNERBA-AB32 Fees-Electric	-	16	17
Nancy C. Clancy	1EV002	RNERBA-AB32 Fees-Gas	-	-	-
Total			4,192	3,369	3,617
Richard D. Tattersall	1RE001	SDGE Facility Operations	5,881	5,932	6,263
Richard D. Tattersall	1RE002	Land Services	824	607	645
Richard D. Tattersall	1RE003	SDGE Rents	12,056	13,318	13,318
Total			18,761	19,857	20,227
Carmen L. Herrera	1FS001	Amortization	7,911	19,150	19,150
Carmen L. Herrera	1FS002	Maintenance Operations	12,314	14,703	15,643
Carmen L. Herrera	1FS005	Maintenance Management	726	597	648
Carmen L. Herrera	1FS006	Director	(160)	(169)	(177)
Total			20,791	34,282	35,264
Denita A. Willoughby	1SS001	Logistics Shops South - Pool Warehousing	3,395	3,699	4,021
Denita A. Willoughby	1SS003	Office Services	1,547	1,578	1,658
Denita A. Willoughby	1SS004	Logistics Shops South - Pool Purchasing	678	687	747
Denita A. Willoughby	1SS005	Supplier Diversity	637	852	912
Denita A. Willoughby	1SS006	Electric Portfolio	707	728	791
Denita A. Willoughby	1SS007	STRATEGY & SUSTAINABILITY	744	(227)	(237)
Total			7,708	7,317	7,893
Total NSS			51,453	64,825	67,001
Nancy C. Clancy	2100-0632	ENVIRONMENTAL LAB OPERATIONS	1,008	609	652
Nancy C. Clancy	2100-3282	ENVIRONMENTAL COMMUNICATIONS	518	537	574

TABLE KN-38
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
SUPPORT SERVICES ELECTRIC DISTRIBUTION
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Nancy C. Clancy	2100-3588	VP OPERATIONS SUPPORT	312	312	334
Nancy C. Clancy	2100-3589	ENVIRONMENTAL SERVICES DIRECTOR	167	168	180
		Total	2,005	1,625	1,740
Richard D. Tattersall	2100-0706	RE PLANNING	726	752	805
Richard D. Tattersall	2100-0708	HQ RENT & FACILITIES MAINTENANCE	1,976	1,885	2,018
Richard D. Tattersall	2100-3025	FACILITIES & CAPITAL PROGRAMS - ADMIN	104	92	98
Richard D. Tattersall	2100-3028	FACILITIES CORPORATE CENTER PROJECTS	18	26	28
Richard D. Tattersall	2100-3030	CORPORATE REAL ESTATE MANAGER	192	136	146
Richard D. Tattersall	2100-3303	RE RESOURCES	348	348	372
Richard D. Tattersall	2100-3323	FACILITIES OPERATIONS SOUTH MANAGER	393	346	370
Richard D. Tattersall	2100-3610	RB DATA CENTER & ANNEX	546	536	574
Richard D. Tattersall	2100-3714	DIRECTOR - REAL ESTATE & LAND SERVICES	249	294	315
Richard D. Tattersall	2100-3977	RE PLANNING-MAC	8	8	9
		Total	4,561	4,423	4,735
Carmen L. Herrera	2100-0203	SDGE FLEET ASSET	783	772	827
Carmen L. Herrera	2100-3411	FLEET SYSTEMS SUPPORT	204	303	324
Carmen L. Herrera	2100-3412	FLEET FINANCIAL SUPPORT	74	109	117
Carmen L. Herrera	2100-3952	FLEET PROJECTS & PROGRAMS	-	81	86
		Total	1,060	1,265	1,354
Denita A. Willoughby	2100-3013	SUPPLY MANAGEMENT DIRECTOR	410	828	887
Denita A. Willoughby	2100-3016	SUPPLY MANAGEMENT DIRECTOR	534	537	575
Denita A. Willoughby	2100-3018	SUPPLY MANAGEMENT DIRECTOR	193	160	171
Denita A. Willoughby	2100-3266	SUPPLY MANAGEMENT DIRECTOR	523	520	557
Denita A. Willoughby	2100-3331	SUPPLY MANAGEMENT DIRECTOR	664	597	639
Denita A. Willoughby	2100-3332	SUPPLY MANAGEMENT DIRECTOR	604	563	603
Denita A. Willoughby	2100-3407	SUPPLY MANAGEMENT DIRECTOR	183	224	240
		Total	3,113	3,431	3,673
		Total SS	10,739	10,743	11,501
		Total Support Services Electric Distribution	\$ 62,191	\$ 75,568	\$ 78,502

TABLE KN-39
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
SUPPORT SERVICES GENERATION
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Nancy C. Clancy	1EV000	ENVIRONMENTAL SDGE NSS Cost Center	128	102	110
Nancy C. Clancy	1EV001	RNERBA-AB32 Fees-Electric	287	287	302
Nancy C. Clancy	1EV002	RNERBA-AB32 Fees-Gas	-	-	-
Total			415	389	411
Richard D. Tattersall	1RE001	SDGE Facility Operations	374	377	398
Richard D. Tattersall	1RE002	Land Services	18	13	14
Richard D. Tattersall	1RE003	SDGE Rents	766	846	846
Total			1,158	1,237	1,258
Carmen L. Herrera	1FS001	Amortization	20	49	49
Carmen L. Herrera	1FS002	Maintenance Operations	31	38	40
Carmen L. Herrera	1FS005	Maintenance Management	2	2	2
Carmen L. Herrera	1FS006	Director	(0)	(0)	(0)
Total			53	88	90
Denita A. Willoughby	1SS001	Logistics Shops South - Pool Warehousing	45	49	54
Denita A. Willoughby	1SS003	Office Services	98	100	105
Denita A. Willoughby	1SS004	Logistics Shops South - Pool Purchasing	30	30	33
Denita A. Willoughby	1SS005	Supplier Diversity	28	38	40
Denita A. Willoughby	1SS006	Electric Portfolio	31	32	35
Denita A. Willoughby	1SS007	STRATEGY & SUSTAINABILITY	33	(10)	(10)
Total			266	240	257
Total NSS			1,892	1,953	2,017
Nancy C. Clancy	2100-0632	ENVIRONMENTAL LAB OPERATIONS	3	2	2
Nancy C. Clancy	2100-3282	ENVIRONMENTAL COMMUNICATIONS	33	34	37

TABLE KN-39
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
SUPPORT SERVICES GENERATION
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Nancy C. Clancy	2100-3588	VP OPERATIONS SUPPORT	20	20	21
Nancy C. Clancy	2100-3589	ENVIRONMENTAL SERVICES DIRECTOR	11	11	11
		Total	66	66	71
Richard D. Tattersall	2100-0706	RE PLANNING	46	48	51
Richard D. Tattersall	2100-0708	HQ RENT & FACILITIES MAINTENANCE	126	120	128
Richard D. Tattersall	2100-3025	FACILITIES & CAPITAL PROGRAMS - ADMIN	7	6	6
Richard D. Tattersall	2100-3028	FACILITIES CORPORATE CENTER PROJECTS	1	2	2
Richard D. Tattersall	2100-3030	CORPORATE REAL ESTATE MANAGER	12	9	9
Richard D. Tattersall	2100-3303	RE RESOURCES	22	22	24
Richard D. Tattersall	2100-3323	FACILITIES OPERATIONS SOUTH MANAGER	23	20	22
Richard D. Tattersall	2100-3610	RB DATA CENTER & ANNEX	35	34	36
Richard D. Tattersall	2100-3714	DIRECTOR - REAL ESTATE & LAND SERVICES	16	19	20
Richard D. Tattersall	2100-3977	RE PLANNING-MAC	0	1	1
		Total	288	279	299
Carmen L. Herrera	2100-0203	SDGE FLEET ASSET	2	2	2
Carmen L. Herrera	2100-3411	FLEET SYSTEMS SUPPORT	1	1	1
Carmen L. Herrera	2100-3412	FLEET FINANCIAL SUPPORT	0	0	0
Carmen L. Herrera	2100-3952	FLEET PROJECTS & PROGRAMS	-	0	0
		Total	3	3	3
Denita A. Willoughby	2100-3013	SUPPLY MANAGEMENT DIRECTOR	18	37	39
Denita A. Willoughby	2100-3016	SUPPLY MANAGEMENT DIRECTOR	24	24	25
Denita A. Willoughby	2100-3018	SUPPLY MANAGEMENT DIRECTOR	12	10	11
Denita A. Willoughby	2100-3266	SUPPLY MANAGEMENT DIRECTOR	33	33	35
Denita A. Willoughby	2100-3331	SUPPLY MANAGEMENT DIRECTOR	30	27	29
Denita A. Willoughby	2100-3332	SUPPLY MANAGEMENT DIRECTOR	27	25	27
Denita A. Willoughby	2100-3407	SUPPLY MANAGEMENT DIRECTOR	12	14	15
		Total	156	170	182
		Total SS	513	519	556
		Total Support Services Generation	\$ 2,405	\$ 2,472	\$ 2,572

TABLE KN-40
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
SUPPORT SERVICES GAS
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Nancy C. Clancy	1EV000	ENVIRONMENTAL SDGE NSS Cost Center	701	561	604
Nancy C. Clancy	1EV001	RNERBA-AB32 Fees-Electric	-	-	-
Nancy C. Clancy	1EV002	RNERBA-AB32 Fees-Gas	517	532	563
		Total	1,218	1,093	1,167
Richard D. Tattersall	1RE001	SDGE Facility Operations	2,052	2,069	2,198
Richard D. Tattersall	1RE002	Land Services	97	72	77
Richard D. Tattersall	1RE003	SDGE Rents	4,206	4,646	4,646
		Total	6,355	6,787	6,921
Carmen L. Herrera	1FS001	Amortization	2,185	5,290	5,290
Carmen L. Herrera	1FS002	Maintenance Operations	3,401	4,061	4,341
Carmen L. Herrera	1FS005	Maintenance Management	200	165	179
Carmen L. Herrera	1FS006	Director	(44)	(47)	(49)
		Total	5,743	9,469	9,760
Denita A. Willoughby	1SS001	Logistics Shops South - Pool Warehousing	340	371	403
Denita A. Willoughby	1SS003	Office Services	540	551	583
Denita A. Willoughby	1SS004	Logistics Shops South - Pool Purchasing	201	204	221
Denita A. Willoughby	1SS005	Supplier Diversity	189	252	271
Denita A. Willoughby	1SS006	Electric Portfolio	210	216	234
Denita A. Willoughby	1SS007	STRATEGY & SUSTAINABILITY	220	(67)	(71)
		Total	1,699	1,526	1,642
		Total NSS	15,016	18,875	19,490
Nancy C. Clancy	2100-0632	ENVIRONMENTAL LAB OPERATIONS	81	49	52
Nancy C. Clancy	2100-3282	ENVIRONMENTAL COMMUNICATIONS	181	187	200

TABLE KN-40
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
SUPPORT SERVICES GAS
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Nancy C. Clancy	2100-3588	VP OPERATIONS SUPPORT	109	109	116
Nancy C. Clancy	2100-3589	ENVIRONMENTAL SERVICES DIRECTOR	71	71	76
		Total	441	416	445
Richard D. Tattersall	2100-0706	RE PLANNING	253	262	281
Richard D. Tattersall	2100-0708	HQ RENT & FACILITIES MAINTENANCE	689	658	704
Richard D. Tattersall	2100-3025	FACILITIES & CAPITAL PROGRAMS - ADMIN	36	32	34
Richard D. Tattersall	2100-3028	FACILITIES CORPORATE CENTER PROJECTS	6	9	10
Richard D. Tattersall	2100-3030	CORPORATE REAL ESTATE MANAGER	120	85	91
Richard D. Tattersall	2100-3303	RE RESOURCES	122	121	130
Richard D. Tattersall	2100-3323	FACILITIES OPERATIONS SOUTH MANAGER	143	126	135
Richard D. Tattersall	2100-3610	RB DATA CENTER & ANNEX	190	187	200
Richard D. Tattersall	2100-3714	DIRECTOR - REAL ESTATE & LAND SERVICES	87	103	110
Richard D. Tattersall	2100-3977	RE PLANNING-MAC	3	3	3
		Total	1,650	1,586	1,698
Carmen L. Herrera	2100-0203	SDGE FLEET ASSET	216	213	228
Carmen L. Herrera	2100-3411	FLEET SYSTEMS SUPPORT	56	84	90
Carmen L. Herrera	2100-3412	FLEET FINANCIAL SUPPORT	20	30	32
Carmen L. Herrera	2100-3952	FLEET PROJECTS & PROGRAMS	-	22	24
		Total	293	349	374
Denita A. Willoughby	2100-3013	SUPPLY MANAGEMENT DIRECTOR	122	245	263
Denita A. Willoughby	2100-3016	SUPPLY MANAGEMENT DIRECTOR	158	159	170
Denita A. Willoughby	2100-3018	SUPPLY MANAGEMENT DIRECTOR	67	56	60
Denita A. Willoughby	2100-3266	SUPPLY MANAGEMENT DIRECTOR	183	182	194
Denita A. Willoughby	2100-3331	SUPPLY MANAGEMENT DIRECTOR	199	179	191
Denita A. Willoughby	2100-3332	SUPPLY MANAGEMENT DIRECTOR	179	167	179
Denita A. Willoughby	2100-3407	SUPPLY MANAGEMENT DIRECTOR	82	100	107
		Total	989	1,087	1,164
		Total SS	3,373	3,438	3,681
		Total Support Services Gas	\$ 18,389	\$ 22,314	\$ 23,171

TABLE KN-41
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
ADMINISTRATIVE AND GENERAL COMBINED
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Sandra K. Hrna	1AG001	Oper CCTR-NSS-Controllers -Plng & Reg Accts	3,965	4,083	4,442
Sandra K. Hrna	1AG002	Oper CCTR-NSS-Controllers -Fin Sys & Bus Controls	455	468	509
Sandra K. Hrna	1AG003	Oper CCTR-NSS-Controllers -Cost Accounting	2,012	1,980	2,152
Sandra K. Hrna	1AG004	Oper CCTR-NSS-Controllers -Sundry Billing	688	835	910
Sandra K. Hrna	1AG005	Oper CCTR-NSS-Controllers -MARF	186	212	231
Sandra K. Hrna	1AG006	Oper CCTR-NSS-Legal -Legal	8,771	8,744	9,499
Sandra K. Hrna	1AG007	Oper CCTR-NSS-Legal -Claims	678	906	986
Sandra K. Hrna	1AG008	Oper CCTR-NSS-Legal -Claims Payments and Recovery Costs	6,591	3,756	3,953
Sandra K. Hrna	1AG009	Oper CCTR-NSS-Regulatory Affairs -SDG&E Tariff	1,050	659	746
Sandra K. Hrna	1AG012	Oper CCTR-NSS-Use for Acctg Closing -Community Relations	39	31	33
Sandra K. Hrna	1AG014	Other 925 Damages	-	-	-
Total			24,435	21,674	23,459
Debbie S. Robinson	1PB000	HEALTH BENEFITS-MEDICAL	69,405	86,273	86,273
Debbie S. Robinson	1CP000	COMPENSATION - VARIABLE PAY (GRC USE ONLY)	75,858	80,617	86,956
Total			145,263	166,890	173,229
Tashonda Taylor	1HR000	Chief HR and Chief Administrative Officer	516	597	645
Tashonda Taylor	1HR001	Safety Wellness and Disability Svcs	1,085	1,694	1,807
Tashonda Taylor	1HR002	Long-Term Disability (LTD)	4,089	5,195	5,195
Tashonda Taylor	1HR003	Diversity and Workforce Management	2,121	1,986	2,129
Tashonda Taylor	1HR004	Organizational Effectiveness	1,807	2,177	2,346
Tashonda Taylor	1HR005	Employee Communications	338	338	365
Tashonda Taylor	1HR007	HR Diversity	150	175	188
Tashonda Taylor	1HR008	Offices of the President and COO	2,775	2,395	2,555
Total			12,881	14,557	15,231
Debbie S. Robinson	1PN000	EMPLOYEE PENSION	2,357	65,400	65,400
Total			2,357	65,400	65,400
Mia L. DeMontigny	1SE000	SECC OUTSIDE SERVICES EMPLOYES - F923.1	59,200	60,986	60,986
Total			59,200	60,986	60,986
Neil K. Cayabyab	1SN000	SECC PROPERTY INSURANCE NON-NUCLEAR - 924.0	107,362	126,270	126,270
Total			107,362	126,270	126,270
Total NSS			351,498	455,777	464,575

TABLE KN-41
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
ADMINISTRATIVE AND GENERAL COMBINED
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Sandra K. Hrna	2100-0006	Oper CCTR-USS-Regulatory Affairs -GRC & Rev Req	-	-	-
Sandra K. Hrna	2100-0274	Oper CCTR-USS-Controllers -AFFIL BILLING & COSTING	436	477	510
Sandra K. Hrna	2100-0657	Oper CCTR-USS-Controllers -VP	16	120	128
Sandra K. Hrna	2100-3050	Oper CCTR-USS-Controllers -UTILITY ACCTG DIR & STAFF	269	293	314
Sandra K. Hrna	2100-3051	Oper CCTR-USS-Controllers -FINANCIAL ACCOUNTING	903	909	973
Sandra K. Hrna	2100-3052	Oper CCTR-USS-Controllers -REGULATORY REPORTING	735	802	859
Sandra K. Hrna	2100-3058	Oper CCTR-USS-Controllers -ACCOUNTS PAYABLE	1,279	1,086	1,162
Sandra K. Hrna	2100-3067	Oper CCTR-USS-Controllers -IT BUSINESS PLNG & BUDGETS	807	746	799
Sandra K. Hrna	2100-3162	Oper CCTR-USS-Regulatory Affairs -VP	1,242	1,146	1,226
Sandra K. Hrna	2100-3427	Oper CCTR-USS-Regulatory Affairs - Case Management	1,970	2,227	2,385
Sandra K. Hrna	2100-3430	Oper CCTR-USS-Regulatory Affairs -GRC & Reg Case Support	436	475	509
Sandra K. Hrna	2100-3555	Oper CCTR-USS-Controllers -BUSINESS CONTROLS	487	744	796
Sandra K. Hrna	2100-3602	Oper CCTR-USS-Regulatory Affairs -GRC Data Analysis	696	774	829
Sandra K. Hrna	2100-3716	Oper CCTR-USS-Regulatory Affairs Rates & Demand Analysis	116	112	120
Sandra K. Hrna	2100-3791	Oper CCTR-USS-Extrnl&State Legis Affrs-VP	916	727	778
Sandra K. Hrna	2100-3798	Oper CCTR-USS-Controllers -BANK REC & ESCHEATMENT	488	483	517
Sandra K. Hrna	2100-3808	Oper CCTR-USS-Regulatory Affairs CPUC/FERC Gas Cases	127	127	136
Sandra K. Hrna	2100-4006	Oper CCTR-USS-Extrnl&State Legis Affrs-Reg Policy & Leg Analysis	180	315	338
Sandra K. Hrna	2100-4008	Oper CCTR-USS-Extrnl&State Legis Affrs-Media Relations	960	973	1,042
Sandra K. Hrna	2100-4009	Oper CCTR-USS-Extrnl&State Legis Affrs-Community Relations	1,066	1,025	1,097
Sandra K. Hrna	2100-7100	Compliance and Financial Systems Director	258	296	316
Total			13,387	13,856	14,834
Diana L. Day	2100-3590	Risk Management	2,656	3,860	4,133
Diana L. Day	2100-3934	VP ENTERPRISE RISK MANAGEMENT	398	431	461
Diana L. Day	2100-3945	OPERATIONS RISK MANAGEMENT SDG&E	1,227	2,452	2,625
Total			4,281	6,744	7,220
Tashonda Taylor	2100-0214	SDG&E FIELD SAFETY	882	971	1,040
Tashonda Taylor	2100-0284	DIR LABOR & BUSINESS PARTNER	1,055	1,258	1,346
Tashonda Taylor	2100-3414	Safety Compliance	571	601.20	644
Tashonda Taylor	2100-3505	EMP CARE SERVICES - SDGE	768	767	821
Tashonda Taylor	2100-3506	Employee Assistance Program (EAP) and Wellness Programs	264	294	314
Tashonda Taylor	2100-3833	BUSINESS PARTNER SOUTH	407	407	436
Tashonda Taylor	2100-3834	Manager Analysis & Workforce Planning	173	308	329
Total			4,120	4,606	4,931
Total SS			21,788	25,205	26,985
Total A&G Combined			\$ 373,286	\$ 480,982	\$ 491,560

TABLE KN-42
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
A&G ELECTRIC DEPARTMENT
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Sandra K. Hrna	1AG001	Oper CCTR-NSS-Controllers -Plng & Reg Accts	2,986	3,074	3,345
Sandra K. Hrna	1AG002	Oper CCTR-NSS-Controllers -Fin Sys & Bus Controls	343	352	383
Sandra K. Hrna	1AG003	Oper CCTR-NSS-Controllers -Cost Accounting	1,515	1,491	1,620
Sandra K. Hrna	1AG004	Oper CCTR-NSS-Controllers -Sundry Billing	518	629	685
Sandra K. Hrna	1AG005	Oper CCTR-NSS-Controllers -MARF	140	160	174
Sandra K. Hrna	1AG006	Oper CCTR-NSS-Legal -Legal	6,605	6,584	7,152
Sandra K. Hrna	1AG007	Oper CCTR-NSS-Legal -Claims	511	682	742
Sandra K. Hrna	1AG008	Oper CCTR-NSS-Legal -Claims Payments and Recovery Costs	4,963	2,828	2,971
Sandra K. Hrna	1AG009	Oper CCTR-NSS-Regulatory Affairs -SDG&E Tariff	791	496	561
Sandra K. Hrna	1AG012	Oper CCTR-NSS-Use for Acctg Closing -Community Relations	29	23	25
Sandra K. Hrna	1AG014	Other 925 Damages	-	-	-
Total			18,400	16,321	17,658
Debbie S. Robinson	1PB000	HEALTH BENEFITS-MEDICAL	52,262	64,964	64,964
Debbie S. Robinson	1CP000	COMPENSATION - VARIABLE PAY (GRC USE ONLY)	57,077	60,587	65,353
Total			109,339	125,551	130,317
Tashonda Taylor	1HR000	Chief HR and Chief Administrative Officer	389	450	486
Tashonda Taylor	1HR001	Safety Wellness and Disability Svcs	817	1,276	1,360
Tashonda Taylor	1HR002	Long-Term Disability (LTD)	3,079	3,912	3,912
Tashonda Taylor	1HR003	Diversity and Workforce Management	1,632	1,528	1,637
Tashonda Taylor	1HR004	Organizational Effectiveness	1,361	1,639	1,766
Tashonda Taylor	1HR005	Employee Communications	255	255	274
Tashonda Taylor	1HR007	HR Diversity	113	132	141
Tashonda Taylor	1HR008	Offices of the President and COO	2,090	1,803	1,922
Total			9,734	10,994	11,498
Debbie S. Robinson	1PN000	EMPLOYEE PENSION	1,775	49,246	49,246
Total			1,775	49,246	49,246
Mia L. DeMontigny	1SE000	SECC OUTSIDE SERVICES EMPLOYES - F923.1	44,578	45,922	45,922
Total			44,578	45,922	45,922
Neil K. Cayabyab	1SN000	SECC PROPERTY INSURANCE NON-NUCLEAR - 924.0	99,960	118,291	118,291
Total			99,960	118,291	118,291
Total NSS			283,785	366,325	372,932

TABLE KN-42
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
A&G ELECTRIC DEPARTMENT
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Sandra K. Hrna	2100-0006	Oper CCTR-USS-Regulatory Affairs -GRC & Rev Req	-	-	-
Sandra K. Hrna	2100-0274	Oper CCTR-USS-Controllers -AFFIL BILLING & COSTING	328	359	384
Sandra K. Hrna	2100-0657	Oper CCTR-USS-Controllers -VP	12	90	97
Sandra K. Hrna	2100-3050	Oper CCTR-USS-Controllers -UTILITY ACCTG DIR & STAFF	203	221	236
Sandra K. Hrna	2100-3051	Oper CCTR-USS-Controllers -FINANCIAL ACCOUNTING	680	684	732
Sandra K. Hrna	2100-3052	Oper CCTR-USS-Controllers -REGULATORY REPORTING	553	604	647
Sandra K. Hrna	2100-3058	Oper CCTR-USS-Controllers -ACCOUNTS PAYABLE	963	817	875
Sandra K. Hrna	2100-3067	Oper CCTR-USS-Controllers -IT BUSINESS PLNG & BUDGETS	608	562	601
Sandra K. Hrna	2100-3162	Oper CCTR-USS-Regulatory Affairs -VP	935	863	924
Sandra K. Hrna	2100-3427	Oper CCTR-USS-Regulatory Affairs - Case Management	1,483	1,677	1,796
Sandra K. Hrna	2100-3430	Oper CCTR-USS-Regulatory Affairs -GRC & Reg Case Support	326	355	380
Sandra K. Hrna	2100-3555	Oper CCTR-USS-Controllers -BUSINESS CONTROLS	367	560	600
Sandra K. Hrna	2100-3602	Oper CCTR-USS-Regulatory Affairs -GRC Data Analysis	524	583	624
Sandra K. Hrna	2100-3716	Oper CCTR-USS-Regulatory Affairs Rates & Demand Analysis	87	84	90
Sandra K. Hrna	2100-3791	Oper CCTR-USS-Extrnl&State Legis Affrs-VP	764	606	649
Sandra K. Hrna	2100-3798	Oper CCTR-USS-Controllers -BANK REC & ESCHEATMENT	367	363	389
Sandra K. Hrna	2100-3808	Oper CCTR-USS-Regulatory Affairs CPUC/FERC Gas Cases	96	96	103
Sandra K. Hrna	2100-4006	Oper CCTR-USS-Extrnl&State Legis Affrs-Reg Policy & Leg Analysis	136	237	254
Sandra K. Hrna	2100-4008	Oper CCTR-USS-Extrnl&State Legis Affrs-Media Relations	723	733	785
Sandra K. Hrna	2100-4009	Oper CCTR-USS-Extrnl&State Legis Affrs-Community Relations	803	772	826
Sandra K. Hrna	2100-7100	Compliance and Financial Systems Director	194	223	238
Total			10,152	10,490	11,230
Diana L. Day	2100-3590	Risk Management	2,000	2,907	3,112
Diana L. Day	2100-3934	VP ENTERPRISE RISK MANAGEMENT	300	325	347
Diana L. Day	2100-3945	OPERATIONS RISK MANAGEMENT SDG&E	924	1,847	1,977
Total			3,224	5,078	5,436
Tashonda Taylor	2100-0214	SDG&E FIELD SAFETY	664	731	783
Tashonda Taylor	2100-0284	DIR LABOR & BUSINESS PARTNER	794	947	1,014
Tashonda Taylor	2100-3414	Safety Compliance	430	453	485
Tashonda Taylor	2100-3505	EMP CARE SERVICES - SDGE	578	578	618
Tashonda Taylor	2100-3506	Employee Assistance Program (EAP) and Wellness Programs	199	221	237
Tashonda Taylor	2100-3833	BUSINESS PARTNER SOUTH	306	307	328
Tashonda Taylor	2100-3834	Manager Analysis & Workforce Planning	130	232	248
Total			3,102	3,468	3,713
Total SS			16,478	19,036	20,379
Total A&G Electric Department			\$ 300,263	\$ 385,360	\$ 393,312

TABLE KN-43
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
A&G ELECTRIC DISTRIBUTION
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Sandra K. Hrna	1AG001	Oper CCTR-NSS-Controllers -Plng & Reg Accts	2,807	2,891	3,145
Sandra K. Hrna	1AG002	Oper CCTR-NSS-Controllers -Fin Sys & Bus Controls	322	331	360
Sandra K. Hrna	1AG003	Oper CCTR-NSS-Controllers -Cost Accounting	1,424	1,402	1,523
Sandra K. Hrna	1AG004	Oper CCTR-NSS-Controllers -Sundry Billing	487	591	644
Sandra K. Hrna	1AG005	Oper CCTR-NSS-Controllers -MARP	132	150	163
Sandra K. Hrna	1AG006	Oper CCTR-NSS-Legal -Legal	6,210	6,191	6,725
Sandra K. Hrna	1AG007	Oper CCTR-NSS-Legal -Claims	480	641	698
Sandra K. Hrna	1AG008	Oper CCTR-NSS-Legal -Claims Payments and Recovery Costs	4,666	2,659	2,794
Sandra K. Hrna	1AG009	Oper CCTR-NSS-Regulatory Affairs -SDG&E Tariff	743	467	528
Sandra K. Hrna	1AG012	Oper CCTR-NSS-Use for Acctg Closing -Community Relations	28	22	23
Sandra K. Hrna	1AG014	Other 925 Damages	-	-	-
Total			17,300	15,345	16,603
Debbie S. Robinson	1PB000	HEALTH BENEFITS-MEDICAL	49,139	61,081	61,081
Debbie S. Robinson	1CP000	COMPENSATION - VARIABLE PAY (GRC USE ONLY)	53,648	56,897	61,378
Total			102,787	117,978	122,459
Tashonda Taylor	1HR000	Chief HR and Chief Administrative Officer	365	423	457
Tashonda Taylor	1HR001	Safety Wellness and Disability Svcs	768	1,199	1,278
Tashonda Taylor	1HR002	Long-Term Disability (LTD)	2,895	3,678	3,678
Tashonda Taylor	1HR003	Diversity and Workforce Management	1,543	1,444	1,547
Tashonda Taylor	1HR004	Organizational Effectiveness	1,279	1,541	1,660
Tashonda Taylor	1HR005	Employee Communications	239	239	258
Tashonda Taylor	1HR007	HR Diversity	106	124	133
Tashonda Taylor	1HR008	Offices of the President and COO	1,965	1,696	1,807
Total			9,161	10,345	10,819
Debbie S. Robinson	1PN000	EMPLOYEE PENSION	1,669	46,303	46,303
Total			1,669	46,303	46,303
Mia L. DeMontigny	1SE000	SECC OUTSIDE SERVICES EMPLOYES - F923.1	41,914	43,178	43,178
Total			41,914	43,178	43,178
Neil K. Cayabyab	1SN000	SECC PROPERTY INSURANCE NON-NUCLEAR - 924.0	93,879	111,027	111,027
Total			93,879	111,027	111,027
Total NSS			266,709	344,177	350,390

TABLE KN-43
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
A&G ELECTRIC DISTRIBUTION
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Sandra K. Hrna	2100-0006	Oper CCTR-USS-Regulatory Affairs -GRC & Rev Req	-	-	-
Sandra K. Hrna	2100-0274	Oper CCTR-USS-Controllers -AFFIL BILLING & COSTING	309	338	361
Sandra K. Hrna	2100-0657	Oper CCTR-USS-Controllers -VP	11	85	91
Sandra K. Hrna	2100-3050	Oper CCTR-USS-Controllers -UTILITY ACCTG DIR & STAFF	190	208	222
Sandra K. Hrna	2100-3051	Oper CCTR-USS-Controllers -FINANCIAL ACCOUNTING	639	643	689
Sandra K. Hrna	2100-3052	Oper CCTR-USS-Controllers -REGULATORY REPORTING	520	568	608
Sandra K. Hrna	2100-3058	Oper CCTR-USS-Controllers -ACCOUNTS PAYABLE	906	769	823
Sandra K. Hrna	2100-3067	Oper CCTR-USS-Controllers -IT BUSINESS PLNG & BUDGETS	571	528	566
Sandra K. Hrna	2100-3162	Oper CCTR-USS-Regulatory Affairs -VP	879	811	868
Sandra K. Hrna	2100-3427	Oper CCTR-USS-Regulatory Affairs - Case Management	1,395	1,577	1,688
Sandra K. Hrna	2100-3430	Oper CCTR-USS-Regulatory Affairs -GRC & Reg Case Support	307	335	359
Sandra K. Hrna	2100-3555	Oper CCTR-USS-Controllers -BUSINESS CONTROLS	345	527	564
Sandra K. Hrna	2100-3602	Oper CCTR-USS-Regulatory Affairs -GRC Data Analysis	493	548	587
Sandra K. Hrna	2100-3716	Oper CCTR-USS-Regulatory Affairs Rates & Demand Analysis	82	79	85
Sandra K. Hrna	2100-3791	Oper CCTR-USS-Extrnl&State Legis Affrs-VP	750	595	638
Sandra K. Hrna	2100-3798	Oper CCTR-USS-Controllers -BANK REC & ESCHEATMENT	346	342	366
Sandra K. Hrna	2100-3808	Oper CCTR-USS-Regulatory Affairs CPUC/FERC Gas Cases	90	90	97
Sandra K. Hrna	2100-4006	Oper CCTR-USS-Extrnl&State Legis Affrs-Reg Policy & Leg Analysis	127	223	239
Sandra K. Hrna	2100-4008	Oper CCTR-USS-Extrnl&State Legis Affrs-Media Relations	680	689	738
Sandra K. Hrna	2100-4009	Oper CCTR-USS-Extrnl&State Legis Affrs-Community Relations	755	726	777
Sandra K. Hrna	2100-7100	Compliance and Financial Systems Director	183	209	224
Total			9,578	9,889	10,587
Diana L. Day	2100-3590	Risk Management	1,880	2,733	2,926
Diana L. Day	2100-3934	VP ENTERPRISE RISK MANAGEMENT	282	305	327
Diana L. Day	2100-3945	OPERATIONS RISK MANAGEMENT SDG&E	869	1,736	1,859
Total			3,031	4,774	5,111
Tashonda Taylor	2100-0214	SDG&E FIELD SAFETY	624	688	736
Tashonda Taylor	2100-0284	DIR LABOR & BUSINESS PARTNER	747	890	953
Tashonda Taylor	2100-3414	Safety Compliance	404	426	456
Tashonda Taylor	2100-3505	EMP CARE SERVICES - SDGE	544	543	582
Tashonda Taylor	2100-3506	Employee Assistance Program (EAP) and Wellness Programs	187	208	222
Tashonda Taylor	2100-3833	BUSINESS PARTNER SOUTH	288	288	309
Tashonda Taylor	2100-3834	Manager Analysis & Workforce Planning	122	218	233
Total			2,917	3,261	3,491
Total SS			15,526	17,925	19,190
Total A&G Electric Distribution			\$ 282,235	\$ 362,101	\$ 369,580

TABLE KN-44
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
A&G GENERATION
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Sandra K. Hrna	1AG001	Oper CCTR-NSS-Controllers -Ping & Reg Accts	178	184	200
Sandra K. Hrna	1AG002	Oper CCTR-NSS-Controllers -Fin Sys & Bus Controls	20	21	23
Sandra K. Hrna	1AG003	Oper CCTR-NSS-Controllers -Cost Accounting	91	89	97
Sandra K. Hrna	1AG004	Oper CCTR-NSS-Controllers -Sundry Billing	31	38	41
Sandra K. Hrna	1AG005	Oper CCTR-NSS-Controllers -MARF	8	10	10
Sandra K. Hrna	1AG006	Oper CCTR-NSS-Legal -Legal	395	393	427
Sandra K. Hrna	1AG007	Oper CCTR-NSS-Legal -Claims	31	41	44
Sandra K. Hrna	1AG008	Oper CCTR-NSS-Legal -Claims Payments and Recovery Costs	297	169	178
Sandra K. Hrna	1AG009	Oper CCTR-NSS-Regulatory Affairs -SDG&E Tariff	47	30	34
Sandra K. Hrna	1AG012	Oper CCTR-NSS-Use for Acctg Closing -Community Relations	2	1	1
Sandra K. Hrna	1AG014	Other 925 Damages	-	-	-
Total			1,100	975	1,055
Debbie S. Robinson	1PB000	HEALTH BENEFITS-MEDICAL	3,123	3,882	3,882
Debbie S. Robinson	1CP000	COMPENSATION - VARIABLE PAY (GRC USE ONLY)	3,429	3,690	3,975
Total			6,552	7,572	7,857
Tashonda Taylor	1HR000	Chief HR and Chief Administrative Officer	23	27	29
Tashonda Taylor	1HR001	Safety Wellness and Disability Svcs	49	76	81
Tashonda Taylor	1HR002	Long-Term Disability (LTD)	184	234	234
Tashonda Taylor	1HR003	Diversity and Workforce Management	89	83	89
Tashonda Taylor	1HR004	Organizational Effectiveness	81	98	106
Tashonda Taylor	1HR005	Employee Communications	15	15	16
Tashonda Taylor	1HR007	HR Diversity	7	8	8
Tashonda Taylor	1HR008	Offices of the President and COO	125	108	115
Total			573	649	679
Debbie S. Robinson	1PN000	EMPLOYEE PENSION	106	2,943	2,943
Total			106	2,943	2,943
Mia L. DeMontigny	1SE000	SECC OUTSIDE SERVICES EMPLOYES - F923.1	2,664	2,744	2,744
Total			2,664	2,744	2,744
Neil K. Cayabyab	1SN000	SECC PROPERTY INSURANCE NON-NUCLEAR - 924.0	6,081	7,264	7,264
Total			6,081	7,264	7,264
Total NSS			17,076	22,148	22,542

TABLE KN-44
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
A&G GENERATION
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Sandra K. Hrna	2100-0006	Oper CCTR-USS-Regulatory Affairs -GRC & Rev Req	-	-	-
Sandra K. Hrna	2100-0274	Oper CCTR-USS-Controllers -AFFIL BILLING & COSTING	20	21	23
Sandra K. Hrna	2100-0657	Oper CCTR-USS-Controllers -VP	1	5	6
Sandra K. Hrna	2100-3050	Oper CCTR-USS-Controllers -UTILITY ACCTG DIR & STAFF	12	13	14
Sandra K. Hrna	2100-3051	Oper CCTR-USS-Controllers -FINANCIAL ACCOUNTING	41	41	44
Sandra K. Hrna	2100-3052	Oper CCTR-USS-Controllers -REGULATORY REPORTING	33	36	39
Sandra K. Hrna	2100-3058	Oper CCTR-USS-Controllers -ACCOUNTS PAYABLE	58	49	52
Sandra K. Hrna	2100-3067	Oper CCTR-USS-Controllers -IT BUSINESS PLNG & BUDGETS	36	34	36
Sandra K. Hrna	2100-3162	Oper CCTR-USS-Regulatory Affairs -VP	56	52	55
Sandra K. Hrna	2100-3427	Oper CCTR-USS-Regulatory Affairs - Case Management	89	100	107
Sandra K. Hrna	2100-3430	Oper CCTR-USS-Regulatory Affairs -GRC & Reg Case Support	18	20	22
Sandra K. Hrna	2100-3555	Oper CCTR-USS-Controllers -BUSINESS CONTROLS	22	33	36
Sandra K. Hrna	2100-3602	Oper CCTR-USS-Regulatory Affairs -GRC Data Analysis	31	35	37
Sandra K. Hrna	2100-3716	Oper CCTR-USS-Regulatory Affairs Rates & Demand Analysis	5	5	5
Sandra K. Hrna	2100-3791	Oper CCTR-USS-Extrnl&State Legis Affrs-VP	14	11	12
Sandra K. Hrna	2100-3798	Oper CCTR-USS-Controllers -BANK REC & ESCHEATMENT	22	22	23
Sandra K. Hrna	2100-3808	Oper CCTR-USS-Regulatory Affairs CPUC/FERC Gas Cases	6	6	6
Sandra K. Hrna	2100-4006	Oper CCTR-USS-Extrnl&State Legis Affrs-Reg Policy & Leg Analysis	8	14	15
Sandra K. Hrna	2100-4008	Oper CCTR-USS-Extrnl&State Legis Affrs-Media Relations	43	44	47
Sandra K. Hrna	2100-4009	Oper CCTR-USS-Extrnl&State Legis Affrs-Community Relations	48	46	49
Sandra K. Hrna	2100-7100	Compliance and Financial Systems Director	12	13	14
Total			574	600	643
Diana L. Day	2100-3590	Risk Management	120	174	186
Diana L. Day	2100-3934	VP ENTERPRISE RISK MANAGEMENT	18	19	21
Diana L. Day	2100-3945	OPERATIONS RISK MANAGEMENT SDG&E	55	110	118
Total			193	303	325
Tashonda Taylor	2100-0214	SDG&E FIELD SAFETY	40	44	47
Tashonda Taylor	2100-0284	DIR LABOR & BUSINESS PARTNER	47	57	61
Tashonda Taylor	2100-3414	Safety Compliance	26	27	29
Tashonda Taylor	2100-3505	EMP CARE SERVICES - SDGE	35	35	37
Tashonda Taylor	2100-3506	Employee Assistance Program (EAP) and Wellness Programs	12	13	14
Tashonda Taylor	2100-3833	BUSINESS PARTNER SOUTH	18	18	20
Tashonda Taylor	2100-3834	Manager Analysis & Workforce Planning	8	14	15
Total			185	207	222
Total SS			952	1,111	1,189
Total A&G Generation			\$ 18,027	\$ 23,259	\$ 23,732

TABLE KN-45
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
A&G GAS
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Sandra K. Hrna	1AG001	Oper CCTR-NSS-Controllers -Plng & Reg Accts	979	1,009	1,097
Sandra K. Hrna	1AG002	Oper CCTR-NSS-Controllers -Fin Sys & Bus Controls	112	116	126
Sandra K. Hrna	1AG003	Oper CCTR-NSS-Controllers -Cost Accounting	497	489	532
Sandra K. Hrna	1AG004	Oper CCTR-NSS-Controllers -Sundry Billing	170	206	225
Sandra K. Hrna	1AG005	Oper CCTR-NSS-Controllers -MARP	46	52	57
Sandra K. Hrna	1AG006	Oper CCTR-NSS-Legal -Legal	2,166	2,160	2,347
Sandra K. Hrna	1AG007	Oper CCTR-NSS-Legal -Claims	167	224	243
Sandra K. Hrna	1AG008	Oper CCTR-NSS-Legal -Claims Payments and Recovery Costs	1,628	928	982
Sandra K. Hrna	1AG009	Oper CCTR-NSS-Regulatory Affairs -SDG&E Tariff	259	163	185
Sandra K. Hrna	1AG012	Oper CCTR-NSS-Use for Acctg Closing -Community Relations	10	8	8
Sandra K. Hrna	1AG014	Other 925 Damages	-	-	-
Total			6,035	5,353	5,801
Debbie S. Robinson	1PB000	HEALTH BENEFITS-MEDICAL	17,143	21,309	21,309
Debbie S. Robinson	1CP000	COMPENSATION - VARIABLE PAY (GRC USE ONLY)	18,781	20,030	21,603
Total			35,924	41,339	42,912
Tashonda Taylor	1HR000	Chief HR and Chief Administrative Officer	127	147	160
Tashonda Taylor	1HR001	Safety Wellness and Disability Svcs	268	418	448
Tashonda Taylor	1HR002	Long-Term Disability (LTD)	1,010	1,283	1,283
Tashonda Taylor	1HR003	Diversity and Workforce Management	489	458	492
Tashonda Taylor	1HR004	Organizational Effectiveness	446	538	580
Tashonda Taylor	1HR005	Employee Communications	83	83	90
Tashonda Taylor	1HR007	HR Diversity	37	43	47
Tashonda Taylor	1HR008	Offices of the President and COO	685	592	633
Total			3,147	3,563	3,733
Debbie S. Robinson	1PN000	EMPLOYEE PENSION	582	16,154	16,154
Total			582	16,154	16,154
Mia L. DeMontigny	1SE000	SECC OUTSIDE SERVICES EMPLOYES - F923.1	14,622	15,064	15,064
Total			14,622	15,064	15,064
Neil K. Cayabyab	1SN000	SECC PROPERTY INSURANCE NON-NUCLEAR - 924.0	7,402	7,979	7,979
Total			7,402	7,979	7,979
Total NSS			67,713	89,452	91,643

TABLE KN-45
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
A&G GAS
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Sandra K. Hrna	2100-0006	Oper CCTR-USS-Regulatory Affairs -GRC & Rev Req	-	-	-
Sandra K. Hrna	2100-0274	Oper CCTR-USS-Controllers -AFFIL BILLING & COSTING	108	118	126
Sandra K. Hrna	2100-0657	Oper CCTR-USS-Controllers -VP	4	30	32
Sandra K. Hrna	2100-3050	Oper CCTR-USS-Controllers -UTILITY ACCTG DIR & STAFF	66	72	78
Sandra K. Hrna	2100-3051	Oper CCTR-USS-Controllers -FINANCIAL ACCOUNTING	223	224	240
Sandra K. Hrna	2100-3052	Oper CCTR-USS-Controllers -REGULATORY REPORTING	182	198	212
Sandra K. Hrna	2100-3058	Oper CCTR-USS-Controllers -ACCOUNTS PAYABLE	316	268	287
Sandra K. Hrna	2100-3067	Oper CCTR-USS-Controllers -IT BUSINESS PLNG & BUDGETS	199	184	197
Sandra K. Hrna	2100-3162	Oper CCTR-USS-Regulatory Affairs -VP	307	283	303
Sandra K. Hrna	2100-3427	Oper CCTR-USS-Regulatory Affairs - Case Management	487	550	589
Sandra K. Hrna	2100-3430	Oper CCTR-USS-Regulatory Affairs -GRC & Reg Case Support	110	120	129
Sandra K. Hrna	2100-3555	Oper CCTR-USS-Controllers -BUSINESS CONTROLS	120	184	197
Sandra K. Hrna	2100-3602	Oper CCTR-USS-Regulatory Affairs -GRC Data Analysis	172	191	205
Sandra K. Hrna	2100-3716	Oper CCTR-USS-Regulatory Affairs Rates & Demand Analysis	29	28	30
Sandra K. Hrna	2100-3791	Oper CCTR-USS-Extrnl&State Legis Affrs-VP	152	121	129
Sandra K. Hrna	2100-3798	Oper CCTR-USS-Controllers -BANK REC & ESCHEATMENT	121	119	128
Sandra K. Hrna	2100-3808	Oper CCTR-USS-Regulatory Affairs CPUC/FERC Gas Cases	31	31	34
Sandra K. Hrna	2100-4006	Oper CCTR-USS-Extrnl&State Legis Affrs-Reg Policy & Leg Analysis	44	78	83
Sandra K. Hrna	2100-4008	Oper CCTR-USS-Extrnl&State Legis Affrs-Media Relations	237	240	257
Sandra K. Hrna	2100-4009	Oper CCTR-USS-Extrnl&State Legis Affrs-Community Relations	263	253	271
Sandra K. Hrna	2100-7100	Compliance and Financial Systems Director	64	73	78
		Total	3,235	3,366	3,604
Diana L. Day	2100-3590	Risk Management	656	953	1,021
Diana L. Day	2100-3934	VP ENTERPRISE RISK MANAGEMENT	98	106	114
Diana L. Day	2100-3945	OPERATIONS RISK MANAGEMENT SDG&E	303	606	648
		Total	1,057	1,666	1,783
Tashonda Taylor	2100-0214	SDG&E FIELD SAFETY	218	240	257
Tashonda Taylor	2100-0284	DIR LABOR & BUSINESS PARTNER	261	311	333
Tashonda Taylor	2100-3414	Safety Compliance	141	148	159
Tashonda Taylor	2100-3505	EMP CARE SERVICES - SDGE	190	189	203
Tashonda Taylor	2100-3506	Employee Assistance Program (EAP) and Wellness Programs	65	72	78
Tashonda Taylor	2100-3833	BUSINESS PARTNER SOUTH	101	101	108
Tashonda Taylor	2100-3834	Manager Analysis & Workforce Planning	43	76	81
		Total	1,018	1,138	1,218
		Total SS	5,310	6,170	6,605
		Total A&G Gas	\$ 73,023	\$ 95,622	\$ 98,248

TABLE KN-46
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
Pipeline Safety Enhancement Program
(Thousands of Dollars)

Witness Name	Workpaper Group No.	Description	2016 Adjusted-Recorded (2016\$)	2019 Estimated (2016\$)	2019 Estimated (2019\$)
Richard D. Phillips	1PS000	PIPELINE SAFETY ENHANCEMENT PROGRAM - There will be no SDG&E PSEP Costs in the rate case	708	-	-
		Total	708	-	-
		Total NSS	708	-	-
		Total	-	-	-
		Total SS	-	-	-
		Total PSEP	\$ 708	\$ -	\$ -

TABLE KN-47
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
WORKING CASH ADJUSTMENT TO RATE BASE (NET WORKING CASH REQUIREMENT)
(Thousands of Dollars)

Line No. Description		2016 Recorded											2019 Proposed									
		Total Expenses (1)	Average No. of Days Lag (2)	Dollar-Days Lag (3)=(1)*(2)	Electric % (4)	Gen % (5)	Gas % (6)	Electric Expenses (1) * (4)	Gen Expenses (1) * (5)	Gas Expenses (1) * (6)	Electric Dollar-Days Lag (3) * (4)	Gen Dollar-Days Lag (3) * (5)	Gas Dollar-Days Lag (3) * (6)	Electric Expenses	Electric Average No. of Days Lag	Electric Dollar-Days Lag	Gen Expenses	Gen Average No. of Days Lag	Gen Dollar-Days Lag	Gas Expenses	Gas Average No. of Days Lag	Gas Dollar-Days Lag
1	Commodities - Electric	1,126,484	42.08	47,398,772	100%			1,126,484			47,398,772			1,136,809	42.08	47,833,235						
2	Commodities - Gas	114,482	36.87	4,220,839			100%		154,426	114,482		5,710,181	4,220,839				111,584	36.98	4,126,014	161,329	36.87	5,948,008
3	Commodities - Generation	154,426	36.98	5,710,181																		
4	Payroll Expense	329,196	13.02	4,286,844	58%	5%	25%	189,953	14,814	81,311	2,473,595	192,908	1,058,851									
5	F. I. C. A	22,477	12.38	278,366	58%	5%	25%	12,970	1,011	5,552	160,623	12,526	68,756									
6	Federal/State Unemployment Insurance	800	76.05	60,835	58%	5%	25%	462	36	198	35,103	2,738	15,026									
7	Incentive Compensation Plan	33,639	257.50	8,661,995	58%	5%	25%	19,410	1,514	8,309	4,998,145	389,790	2,139,513									
8	Employee Benefits	88,780	4.22	374,840	58%	5%	25%	51,228	3,995	21,929	216,290	16,868	92,586									
9	Goods & Services	647,909	33.10	21,446,065	58%	5%	25%	373,856	29,156	160,033	12,374,808	965,073	5,297,178									
10	Corporate Charges	174,934	11.72	2,051,076	58%	5%	25%	100,940	7,872	43,209	1,183,512	92,298	506,616									
11	Real Estate Rental	30,217	(11.74)	(354,848)	58%	5%	25%	17,436	1,360	7,464	(204,754)	(15,968)	(87,647)									
12	Materials Issued from Stores	10,006	0.00	0	33%	1%	9%	3,316	120	901	0	0	0									
13	Property/Ad Valorem/Franchise Taxes	289,421	86.24	24,959,741	58%	5%	25%	167,002	13,024	71,487	14,402,270	1,123,188	6,165,056									
14	Federal Income Taxes - Current	82,600	(86.38)	(7,134,900)	47,662	3,717	20,402	47,662	3,717	20,402	(4,116,980)	(321,071)	(1,762,320)									
15	State Income Taxes - Current	54,313	(115.04)	(6,247,975)	31,339	2,444	13,415	31,339	2,444	13,415	(3,605,206)	(281,159)	(1,543,250)									
16	Income Taxes Deferred	(39,975)	0.00	0	(21,677)	(5,096)	(13,202)	(21,677)	(5,096)	(13,202)	0	0	0									
17	Depreciation Provision	608,257	0.00	0	321,511	44,489	59,728	321,511	44,489	59,728	0	0	0									
18	Amortization of Insurance Premiums	97,096	0.00	0	56,026	4,369	23,983	56,026	4,369	23,983	0	0	0									
19	Miscellaneous Expenses	0	0.00	0	0	0	0	0	0	0	0	0	0									
20	Sub-total	2,429,669	19.91	48,382,039				1,371,433	122,825	504,718	27,917,404	2,177,192	11,950,364	1,467,775	20.36	29,878,573	218,619	17.73	3,875,234	431,273	23.68	10,211,396
21	Total Expenses Incl. Commodities	3,825,061		105,711,832				2,497,917	277,252	619,200	75,316,177		16,171,203	2,604,584	29.84	77,711,808	330,204	24.23	8,001,248	592,602	27.27	16,159,404
22	Revenue Lag Days										42.81	42.81	42.81		42.81				42.81			42.81
23	Expense Lag Days (Line 18, Dollar-Days Lag / Expenses)										30.15	0.00	26.12		29.84				24.23			27.27
24	Excess Lag Days (Line 19 - Line 20)										12.66	42.81	16.69		12.97				18.58			15.54
25	Total Expenses Incl. Commodities (Line 18 Expenses)										2,497,917	277,252	619,200		2,604,584				330,204			592,602
26	Lead/Lag Working Capital (Line 21 * Line 22 / 365)										86,619	32,517	28,317		92,566				16,806			25,230
27	Operational Cash Requirement										65,422	5,076	20,129		70,041				5,433			21,550
28	Working Capital Not Supplied by Investors										(34,928)	0	(14,951)		(37,394)				(2,917)			(16,007)
29	Working Cash Adjustment to Rate Base (Line 23 to Line 25)										117,113	37,593	33,495		125,213				19,322			30,773

TABLE KN-48
SAN DIEGO GAS & ELECTRIC COMPANY
TEST YEAR 2019
NET-TO-GROSS MULTIPLIER

Line No.	Description	Uncollectible and Franchise Fee Factor		State & Federal Tax Factor	N-T-G Multiplier	
		Electric	Gas	Electric and Gas	Electric	Gas
1	Revenues	1.000000	1.000000	1.000000	1.000000	1.000000
2	Uncollectible Tax Rate	0.001740	0.001740	0.000000	0.001740	0.001740
3	Uncollectible Amount Applied	1.000000	1.000000	1.000000	1.000000	1.000000
4	Less: Uncollectible (Line 2 * Line 3)	0.001740	0.001740	0.000000	0.001740	0.001740
5	Subtotal (Line 3 - Line 4)	0.998260	0.998260	1.000000	0.998260	0.998260
6	Franchise Fees Tax Rate	0.034468	0.020799	0.000000	0.034468	0.020799
7	Franchise Fees Amount Applied (Line 5)	0.998260	0.998260	1.000000	0.998260	0.998260
8	Less: Franchise Fees (Line 6 * Line 7)	0.034408	0.020763	0.000000	0.034408	0.020763
9	Subtotal (Line 7 - Line 8)	0.963852	0.977497	1.000000	0.963852	0.977497
10	S.I.T. Rate			0.088400	0.088400	0.088400
11	S.I.T. Amount Applied (Line 9)			1.000000	0.963852	0.977497
12	Less: S.I.T. (Line 10 * Line 11)			0.088400	0.085205	0.086411
13	Subtotal (Line 11 - Line 12)			0.911600	0.878648	0.891086
14	F.I.T. Rate			0.350000	0.350000	0.350000
15	F.I.T. Amount Applied (Line 13)			0.911600	0.878648	0.891086
16	Less: F.I.T. (Line 14 * Line 15)			0.319060	0.307527	0.311880
17	Net Operating Revenues (Line 15 - Line 16)			0.592540	0.571121	0.579206
18	Uncollectible and Franchise Fee Factor (1 / Line 9)	1.037504	1.023021			
19	State & Federal Tax Factor (1 / Line 17)			1.687650		
20	N-T-G Multiplier (1 / Line 17)				1.750943	1.726501

APPENDIX B – COST CENTER TO FERC MAPPING

Cost Center	% of Cost Center Forecast Mapped to FERC	FERC
1AG001-000	82.31%	920.0
1AG001-000	17.69%	928.0
1AG002-000	100.00%	920.0
1AG003-000	94.01%	920.0
1AG003-000	5.99%	921.0
1AG004-000	100.00%	920.0
1AG005-000	84.00%	920.0
1AG005-000	16.00%	921.0
1AG006-000	93.74%	920.0
1AG006-000	6.26%	921.0
1AG007-000	67.61%	920.0
1AG007-000	32.39%	921.0
1AG008-000	100.00%	925.0
1AG009-000	100.00%	928.0
1AG012-000	80.16%	921.0
1AG012-000	13.84%	923.0
1AG012-000	6.00%	930.2
1AG014-000	100.00%	925.9
1CP000-000	100.00%	920.4
1CP000-001	100.00%	920.1
1CP000-002	11.24%	870.1
1CP000-002	88.76%	920.0
1CP000-003	21.72%	546.0
1CP000-003	21.04%	870.1
1CP000-003	57.24%	921.0
1ED001-001	12.43%	184.6
1ED001-001	7.45%	582.7
1ED001-001	16.12%	590.0
1ED001-001	64.00%	594.5
1ED002-000	36.54%	184.6
1ED002-000	17.40%	580.2
1ED002-000	19.71%	583.3
1ED002-000	9.77%	585.1
1ED002-000	6.75%	593.5
1ED002-000	9.83%	594.5
1ED003-000	100.00%	588.1
1ED004-000	14.58%	163.1
1ED004-000	67.61%	184.6
1ED004-000	17.81%	581.0
1ED006-000	91.56%	184.7
1ED006-000	8.44%	588.4
1ED008-000	16.78%	581.0
1ED008-000	49.80%	588.0
1ED008-000	33.42%	592.1
1ED009-000	4.50%	588.4
1ED009-000	68.36%	920.0
1ED009-000	27.14%	921.0
1ED010-000	7.16%	580.2
1ED010-000	56.66%	590.0
1ED010-000	36.18%	590.1

Cost Center	% of Cost Center Forecast Mapped to FERC	FERC
1ED011-000	11.88%	184.6
1ED011-000	7.44%	184.7
1ED011-000	23.54%	580.5
1ED011-000	7.12%	588.4
1ED011-000	17.88%	593.1
1ED011-000	10.98%	593.9
1ED011-000	12.68%	594.1
1ED011-000	8.48%	594.6
1ED013-000	18.58%	580.2
1ED013-000	8.56%	580.5
1ED013-000	63.88%	588.4
1ED013-000	8.98%	880.3
1ED014-000	22.30%	580.5
1ED014-000	40.78%	590.0
1ED014-000	23.81%	921.0
1ED014-000	13.11%	930.2
1ED015-000	16.48%	184.7
1ED015-000	12.42%	582.1
1ED015-000	27.41%	588.4
1ED015-000	43.69%	592.1
1ED017-000	5.31%	184.7
1ED017-000	5.44%	580.1
1ED017-000	21.62%	583.1
1ED017-000	14.68%	584.1
1ED017-000	12.58%	588.4
1ED017-000	28.87%	592.1
1ED017-000	11.50%	593.1
1ED018-000	86.20%	580.2
1ED018-000	7.67%	588.0
1ED018-000	6.13%	905.0
1ED019-000	100.00%	920.0
1ED020-000	15.33%	582.1
1ED020-000	6.54%	583.1
1ED020-000	57.10%	587.2
1ED020-000	10.19%	593.1
1ED020-000	10.84%	593.9
1ED021-000	100.00%	593.2
1ED021-001	100.00%	593.2
1ED022-000	7.74%	908.0
1ED022-000	52.59%	920.0
1ED022-000	16.29%	921.0
1ED022-000	5.68%	923.0
1ED022-000	17.70%	930.2
1ED023-000	10.87%	184.7
1ED023-000	34.74%	588.4
1ED023-000	54.39%	921.0
1ED024-000	34.48%	580.1
1ED024-000	8.59%	589.0
1ED024-000	6.41%	598.0
1ED024-000	38.04%	920.0

Cost Center	% of Cost Center Forecast Mapped to FERC	FERC
1ED024-000	12.48%	921.0
1ED025-000	54.62%	580.1
1ED025-000	39.46%	593.0
1ED025-000	5.92%	594.6
1ED026-000	8.62%	580.1
1ED026-000	27.68%	580.2
1ED026-000	11.69%	580.5
1ED026-000	10.71%	588.1
1ED026-000	10.44%	588.4
1ED026-000	19.06%	920.0
1ED026-000	11.80%	923.0
1ED027-000	10.38%	590.1
1ED027-000	41.10%	593.1
1ED027-000	48.52%	925.1
1ED028-000	72.02%	920.0
1ED028-000	19.59%	921.0
1ED028-000	8.39%	930.2
1ED030-000	57.28%	580.2
1ED030-000	5.54%	921.0
1ED030-000	37.18%	923.0
1EG001-000	100.00%	500.0
1EG002-000	19.49%	506.0
1EG002-000	14.28%	549.0
1EG002-000	66.23%	554.0
1EG003-000	28.12%	506.0
1EG003-000	11.82%	514.0
1EG003-000	20.20%	549.0
1EG003-000	39.86%	554.0
1EG004-000	56.21%	500.0
1EG004-000	10.21%	546.0
1EG004-000	33.58%	928.0
1EG005-000	100.00%	514.0
1EG006-000	12.83%	506.0
1EG006-000	18.95%	512.0
1EG006-000	8.12%	514.0
1EG006-000	60.10%	553.0
1EG007-000	5.53%	514.0
1EG007-000	11.88%	549.0
1EG007-000	82.59%	554.0
1EG010-000	20.86%	517.0
1EG010-000	46.31%	524.0
1EG010-000	20.50%	528.0
1EG010-000	12.33%	532.0
1EP001-000	100.00%	557.0
1EP002-000	100.00%	556.0
1EP003-000	100.00%	557.0
1EV000-000	43.45%	582.7
1EV000-000	38.34%	920.0
1EV000-000	18.21%	921.0
1EV001-002	100.00%	506.0

Cost Center	% of Cost Center Forecast Mapped to FERC	FERC
1EV001-003	100.00%	588.0
1EV002-002	100.00%	880.3
1EV002-004	100.00%	887.4
1FC001-000	12.51%	586.4
1FC001-000	5.74%	878.1
1FC001-000	20.85%	878.2
1FC001-000	44.54%	879.1
1FC001-000	6.78%	879.5
1FC001-000	9.58%	880.4
1FC002-000	19.95%	586.0
1FC002-000	80.05%	879.0
1FC003-000	13.47%	580.5
1FC003-000	33.23%	587.0
1FC003-000	35.26%	879.0
1FC003-000	8.98%	880.3
1FC003-000	9.06%	903.0
1FC004-000	31.65%	870.1
1FC004-000	30.65%	879.0
1FC004-000	37.70%	903.1
1FS001-001	100.00%	184.2
1FS001-002	100.00%	184.2
1FS001-003	100.00%	184.2
1FS001-004	100.00%	184.2
1FS001-006	100.00%	184.2
1FS002-000	100.00%	184.2
1FS002-001	100.00%	184.2
1FS005-000	100.00%	184.2
1FS006-000	100.00%	184.2
1GD000-000	7.52%	163.1
1GD000-000	10.34%	856.0
1GD000-000	9.17%	875.0
1GD000-000	6.11%	878.1
1GD000-000	6.31%	879.1
1GD000-000	6.72%	889.0
1GD000-000	41.50%	893.2
1GD000-000	12.33%	894.0
1GD000-001	100.00%	874.1
1GD000-002	44.26%	584.6
1GD000-002	55.74%	874.3
1GD000-003	8.18%	874.4
1GD000-003	40.50%	887.1
1GD000-003	18.70%	887.2
1GD000-003	32.62%	887.4
1GD000-004	28.95%	892.1
1GD000-004	32.93%	892.2
1GD000-004	38.12%	892.3
1GD000-005	48.48%	184.3
1GD000-005	46.14%	184.7
1GD000-005	5.38%	925.0
1GD000-006	33.77%	184.6

Cost Center	% of Cost Center Forecast Mapped to FERC	FERC
1GD000-006	6.49%	582.7
1GD000-006	9.00%	583.1
1GD000-006	12.26%	584.1
1GD000-006	8.96%	593.1
1GD000-006	22.70%	594.1
1GD000-006	6.82%	594.6
1GD000-007	10.87%	580.5
1GD000-007	62.43%	880.3
1GD000-007	26.70%	880.4
1GD001-000	14.65%	870.1
1GD001-000	37.20%	870.2
1GD001-000	48.15%	880.1
1GD002-000	34.36%	874.4
1GD002-000	13.77%	875.0
1GD002-000	8.04%	878.4
1GD002-000	8.42%	880.3
1GD002-000	6.31%	880.4
1GD002-000	6.75%	889.0
1GD002-000	13.29%	893.2
1GD002-000	9.06%	894.3
1GD003-000	100.00%	887.3
1GD004-000	71.79%	870.1
1GD004-000	6.51%	870.2
1GD004-000	21.70%	880.3
1GT000-000	9.57%	850.1
1GT000-000	64.59%	856.0
1GT000-000	15.27%	857.0
1GT000-000	10.57%	865.0
1GT001-000	74.00%	853.1
1GT001-000	6.49%	855.0
1GT001-000	19.51%	864.1
1GT002-000	100.00%	850.0
1HR000-000	92.98%	920.0
1HR000-000	7.02%	921.0
1HR001-000	47.20%	920.0
1HR001-000	6.48%	923.0
1HR001-000	27.00%	925.1
1HR001-000	8.61%	925.2
1HR001-000	10.71%	926.0
1HR002-000	73.27%	925.3
1HR002-000	26.73%	926.0
1HR002-001	100.00%	925.1
1HR003-000	6.62%	580.5
1HR003-000	55.00%	920.0
1HR003-000	23.86%	921.0
1HR003-000	14.52%	923.0
1HR004-000	82.99%	920.0
1HR004-000	9.52%	921.0
1HR004-000	7.49%	930.2
1HR005-000	73.72%	920.0

Cost Center	% of Cost Center Forecast Mapped to FERC	FERC
1HR005-000	6.62%	921.0
1HR005-000	19.66%	923.0
1HR007-000	69.85%	920.0
1HR007-000	30.15%	921.0
1HR008-000	51.31%	920.0
1HR008-000	11.48%	921.0
1HR008-000	37.21%	930.2
1IN001-000	35.88%	908.0
1IN001-000	64.12%	910.0
1IN002-000	7.42%	903.0
1IN002-000	92.58%	908.0
1IN003-000	100.00%	908.0
1IN004-000	30.11%	908.0
1IN004-000	8.56%	920.0
1IN004-000	61.33%	928.0
1IT001-000	5.97%	902.0
1IT001-000	50.47%	903.0
1IT001-000	23.16%	920.0
1IT001-000	20.40%	921.0
1IT002-000	9.15%	920.0
1IT002-000	90.85%	921.0
1IT003-000	100.00%	921.0
1OO001-000	12.21%	586.1
1OO001-000	29.14%	586.2
1OO001-000	38.50%	586.6
1OO001-000	6.95%	586.7
1OO001-000	13.20%	902.2
1OO002-000	7.83%	903.3
1OO002-000	92.17%	903.5
1OO003-000	67.53%	903.3
1OO003-000	18.92%	903.4
1OO003-000	13.55%	903.8
1OO004-000	100.00%	903.4
1OO004-001	100.00%	903.7
1OO005-000	100.00%	903.4
1OO006-000	100.00%	903.1
1OO007-000	100.00%	903.1
1OO008-000	70.70%	903.5
1OO008-000	29.30%	908.0
1PB000-000	100.00%	926.3
1PB000-001	100.00%	926.3
1PB000-002	100.00%	926.3
1PB000-003	100.00%	926.3
1PB000-004	100.00%	926.3
1PB000-005	100.00%	926.3
1PB000-006	100.00%	926.3
1PB000-007	100.00%	926.3
1PB000-008	100.00%	926.3
1PB000-009	100.00%	926.4
1PB000-010	100.00%	926.4

Cost Center	% of Cost Center Forecast Mapped to FERC	FERC
1PB000-011	100.00%	926.4
1PB000-012	100.00%	926.5
1PB000-013	100.00%	926.5
1PB000-014	100.00%	926.0
1PB000-015	100.00%	926.5
1PB000-016	100.00%	926.0
1PB000-017	100.00%	926.0
1PB000-018	100.00%	926.0
1PN000-000	100.00%	926.1
1PN000-001	100.00%	926.2
1PS000-000	100.00%	863.0
1PS000-001	100.00%	863.0
1RE001-000	84.00%	935.0
1RE001-000	16.00%	935.1
1RE002-000	10.05%	582.1
1RE002-000	42.24%	593.1
1RE002-000	5.77%	593.9
1RE002-000	10.66%	920.0
1RE002-000	23.82%	921.0
1RE002-000	7.46%	935.1
1RE003-000	93.59%	931.0
1RE003-000	6.41%	935.1
1SE000-001	100.00%	923.1
1SE000-002	100.00%	923.4
1SI000-000	100.00%	870.1
1SI002-000	100.00%	870.1
1SI003-000	100.00%	870.1
1SN000-000	100.00%	924.0
1SN000-001	100.00%	924.1
1SN000-002	100.00%	925.0
1SN000-003	100.00%	925.1
1SN000-004	100.00%	925.3
1SN000-006	100.00%	925.5
1SS001-000	100.00%	163.1
1SS003-000	100.00%	921.0
1SS004-000	100.00%	163.2
1SS005-000	100.00%	163.2
1SS006-000	100.00%	163.2
1SS007-000	100.00%	163.2
1TD000-000	9.82%	850.7
1TD000-000	35.93%	863.7
1TD000-000	54.25%	887.7
1TD000-001	30.33%	870.7
1TD000-001	69.67%	874.7
2100-0006-000	100.00%	928.0
2100-0203-000	100.00%	184.2
2100-0207-000	78.89%	920.0
2100-0207-000	21.11%	921.0
2100-0214-000	66.00%	920.0
2100-0214-000	12.64%	921.0

Cost Center	% of Cost Center Forecast Mapped to FERC	FERC
2100-0214-000	9.11%	923.0
2100-0214-000	5.86%	925.0
2100-0214-000	6.39%	926.0
2100-0274-000	100.00%	920.0
2100-0284-000	78.40%	920.0
2100-0284-000	12.39%	920.2
2100-0284-000	9.21%	921.0
2100-0632-000	78.45%	582.7
2100-0632-000	9.50%	594.1
2100-0632-000	5.89%	859.3
2100-0632-000	6.16%	921.0
2100-0657-000	18.26%	920.0
2100-0657-000	71.80%	921.0
2100-0657-000	9.94%	923.0
2100-0706-000	100.00%	935.0
2100-0708-000	100.00%	935.0
2100-3013-000	100.00%	163.2
2100-3016-000	100.00%	163.2
2100-3018-000	100.00%	921.0
2100-3025-000	100.00%	935.1
2100-3028-000	100.00%	935.0
2100-3030-000	16.39%	879.1
2100-3030-000	32.43%	920.0
2100-3030-000	42.77%	921.0
2100-3030-000	8.41%	935.0
2100-3050-000	93.22%	920.0
2100-3050-000	6.78%	921.0
2100-3051-000	90.09%	920.0
2100-3051-000	9.91%	921.0
2100-3052-000	100.00%	920.0
2100-3058-000	86.39%	920.0
2100-3058-000	13.61%	921.0
2100-3067-000	100.00%	920.0
2100-3071-000	100.00%	920.0
2100-3072-000	100.00%	920.0
2100-3073-000	100.00%	920.0
2100-3074-000	100.00%	920.0
2100-3088-000	100.00%	920.0
2100-3089-000	100.00%	920.0
2100-3091-000	100.00%	920.0
2100-3095-000	100.00%	921.0
2100-3097-000	64.90%	920.0
2100-3097-000	35.10%	921.0
2100-3099-000	100.00%	921.0
2100-3100-000	94.13%	920.0
2100-3100-000	5.87%	921.0
2100-3101-000	90.68%	920.0
2100-3101-000	9.32%	921.0
2100-3102-000	91.84%	920.0
2100-3102-000	8.16%	921.0

Cost Center	% of Cost Center Forecast Mapped to FERC	FERC
2100-3106-000	8.43%	903.0
2100-3106-000	91.57%	921.0
2100-3107-000	100.00%	921.0
2100-3161-000	82.85%	920.0
2100-3161-000	17.15%	921.0
2100-3162-000	100.00%	928.0
2100-3266-000	100.00%	921.0
2100-3282-000	100.00%	920.0
2100-3303-000	46.53%	920.0
2100-3303-000	53.47%	935.0
2100-3317-000	11.56%	920.0
2100-3317-000	88.44%	921.0
2100-3323-000	8.36%	902.0
2100-3323-000	91.64%	935.0
2100-3331-000	94.36%	163.2
2100-3331-000	5.64%	921.0
2100-3332-000	100.00%	163.2
2100-3334-000	100.00%	920.0
2100-3407-000	6.44%	879.1
2100-3407-000	79.63%	920.0
2100-3407-000	13.93%	921.0
2100-3411-000	100.00%	184.2
2100-3412-000	100.00%	184.2
2100-3414-000	22.71%	920.0
2100-3414-000	9.70%	921.0
2100-3414-000	67.59%	925.1
2100-3427-000	100.00%	928.0
2100-3430-000	5.99%	903.3
2100-3430-000	94.01%	928.0
2100-3433-000	100.00%	928.0
2100-3434-000	100.00%	921.0
2100-3498-000	69.25%	920.0
2100-3498-000	30.75%	921.0
2100-3500-000	100.00%	921.0
2100-3502-000	86.81%	920.0
2100-3502-000	13.19%	921.0
2100-3505-000	6.49%	921.0
2100-3505-000	60.03%	925.0
2100-3505-000	33.48%	926.0
2100-3506-000	43.00%	920.0
2100-3506-000	12.64%	921.0
2100-3506-000	44.36%	925.0
2100-3511-000	100.00%	920.0
2100-3555-000	57.84%	920.0
2100-3555-000	42.16%	923.0
2100-3563-000	100.00%	870.1
2100-3588-000	40.81%	920.0
2100-3588-000	59.19%	921.0
2100-3589-000	5.00%	832.0
2100-3589-000	71.44%	920.0

Cost Center	% of Cost Center Forecast Mapped to FERC	FERC
2100-3589-000	23.56%	921.0
2100-3590-000	32.88%	920.0
2100-3590-000	12.12%	921.0
2100-3590-000	55.00%	923.0
2100-3602-000	100.00%	928.0
2100-3610-000	100.00%	935.1
2100-3623-000	100.00%	921.0
2100-3683-000	90.28%	920.0
2100-3683-000	9.72%	921.0
2100-3684-000	86.43%	920.0
2100-3684-000	13.57%	921.0
2100-3698-000	100.00%	920.0
2100-3699-000	59.67%	920.0
2100-3699-000	40.33%	921.0
2100-3709-000	100.00%	910.0
2100-3713-000	53.62%	920.0
2100-3713-000	46.38%	921.0
2100-3714-000	100.00%	920.0
2100-3716-000	100.00%	928.0
2100-3733-000	36.89%	920.0
2100-3733-000	56.24%	921.0
2100-3733-000	6.87%	930.2
2100-3763-000	77.43%	920.0
2100-3763-000	22.57%	921.0
2100-3774-000	76.97%	920.0
2100-3774-000	23.03%	921.0
2100-3775-000	100.00%	920.0
2100-3781-000	100.00%	921.0
2100-3791-000	67.00%	908.0
2100-3791-000	9.85%	920.0
2100-3791-000	9.00%	921.0
2100-3791-000	14.15%	923.0
2100-3798-000	100.00%	920.0
2100-3807-000	82.33%	920.0
2100-3807-000	17.67%	921.0
2100-3808-000	100.00%	928.0
2100-3814-000	49.62%	920.0
2100-3814-000	50.38%	921.0
2100-3824-000	61.43%	920.0
2100-3824-000	38.57%	921.0
2100-3833-000	100.00%	920.0
2100-3834-000	57.00%	920.0
2100-3834-000	2.00%	921.0
2100-3834-000	41.00%	923.0
2100-3842-000	100.00%	920.0
2100-3848-000	52.08%	920.0
2100-3848-000	47.92%	921.0
2100-3855-000	100.00%	921.0
2100-3856-000	100.00%	921.0
2100-3884-000	100.00%	921.0

Cost Center	% of Cost Center Forecast Mapped to FERC	FERC
2100-3885-000	83.14%	920.0
2100-3885-000	16.86%	921.0
2100-3888-000	93.37%	920.0
2100-3888-000	6.63%	921.0
2100-3900-000	88.54%	920.0
2100-3900-000	11.46%	921.0
2100-3916-000	100.00%	921.0
2100-3921-000	100.00%	921.0
2100-3924-000	100.00%	921.0
2100-3926-000	100.00%	921.0
2100-3934-000	93.01%	920.0
2100-3934-000	6.99%	921.0
2100-3945-000	45.54%	920.0
2100-3945-000	18.17%	921.0
2100-3945-000	36.29%	923.0
2100-3952-000	100.00%	184.2
2100-3954-000	100.00%	920.0
2100-3975-000	44.79%	920.0
2100-3975-000	47.91%	921.0
2100-3975-000	7.30%	930.2
2100-3976-000	72.34%	920.0
2100-3976-000	27.66%	921.0
2100-3977-000	100.00%	935.0
2100-3979-000	100.00%	921.0
2100-4006-000	24.03%	920.0
2100-4006-000	75.97%	928.0
2100-4008-000	83.80%	920.0
2100-4008-000	16.20%	921.0
2100-4009-000	66.66%	920.0
2100-4009-000	33.34%	921.0
2100-7100-000	57.84%	920.0
2100-7100-000	42.16%	923.0
2100-8904-000	3.65%	923.0
2100-8904-000	68.07%	925.0
2100-8904-000	28.28%	926.0
2100-8904-000	3.65%	923.0
2100-8904-000	68.07%	925.0
2100-8904-000	28.28%	926.0
2100-8909-000	100.00%	870.6
2100-8909-000	100.00%	870.6
2100-8910-000	20.53%	908.0
2100-8910-000	79.47%	910.0
2100-8910-000	20.53%	908.0
2100-8910-000	79.47%	910.0
2100-8911-000	28.89%	903.1
2100-8911-000	0.28%	903.3
2100-8911-000	70.83%	903.4
2100-8911-000	28.89%	903.1
2100-8911-000	0.28%	903.3
2100-8911-000	70.83%	903.4

Cost Center	% of Cost Center Forecast Mapped to FERC	FERC
2100-8918-000	0.17%	832.0
2100-8918-000	99.83%	923.0
2100-8918-000	0.17%	832.0
2100-8918-000	99.83%	923.0
2100-8919-000	100.00%	931.6
2100-8919-000	100.00%	931.6
2100-8920-000	6.73%	814.0
2100-8920-000	31.01%	850.0
2100-8920-000	0.51%	859.5
2100-8920-000	20.58%	870.0
2100-8920-000	31.77%	870.6
2100-8920-000	1.75%	870.7
2100-8920-000	3.48%	893.2
2100-8920-000	0.09%	923.0
2100-8920-000	0.20%	930.2
2100-8920-000	3.88%	935.6
2100-8920-000	6.73%	814.0
2100-8920-000	31.01%	850.0
2100-8920-000	0.51%	859.5
2100-8920-000	20.58%	870.0
2100-8920-000	31.77%	870.6
2100-8920-000	1.75%	870.7
2100-8920-000	3.48%	893.2
2100-8920-000	0.09%	923.0
2100-8920-000	0.20%	930.2
2100-8920-000	3.88%	935.6
2100-8921-000	6.00%	814.0
2100-8921-000	16.02%	850.0
2100-8921-000	20.51%	851.0
2100-8921-000	6.53%	870.0
2100-8921-000	34.98%	870.7
2100-8921-000	1.41%	880.2
2100-8921-000	0.68%	907.0
2100-8921-000	0.31%	908.0
2100-8921-000	0.31%	921.3
2100-8921-000	4.97%	923.0
2100-8921-000	6.20%	925.1
2100-8921-000	2.08%	930.2
2100-8921-000	6.00%	814.0
2100-8921-000	16.02%	850.0
2100-8921-000	20.51%	851.0
2100-8921-000	6.53%	870.0
2100-8921-000	34.98%	870.7
2100-8921-000	1.41%	880.2
2100-8921-000	0.68%	907.0
2100-8921-000	0.31%	908.0
2100-8921-000	0.31%	921.3
2100-8921-000	4.97%	923.0
2100-8921-000	6.20%	925.1
2100-8921-000	2.08%	930.2

Cost Center	% of Cost Center Forecast Mapped to FERC	FERC
2100-8922-000	92.60%	850.0
2100-8922-000	3.15%	856.0
2100-8922-000	4.25%	923.0
2100-8922-000	92.60%	850.0
2100-8922-000	3.15%	856.0
2100-8922-000	4.25%	923.0
2100-8924-000	100.00%	923.0
2100-8924-000	100.00%	923.0
2100-8925-000	0.54%	892.0
2100-8925-000	0.26%	903.0
2100-8925-000	99.20%	923.0
2100-8925-000	0.54%	892.0
2100-8925-000	0.26%	903.0
2100-8925-000	99.20%	923.0
2100-8927-000	122.67%	163.2
2100-8927-000	-22.67%	923.0
2100-8927-000	122.67%	163.2
2100-8927-000	-22.67%	923.0
2100-8929-000	0.23%	908.0
2100-8929-000	30.52%	923.0
2100-8929-000	68.62%	928.0
2100-8929-000	0.63%	930.2
2100-8929-000	0.23%	908.0
2100-8929-000	30.52%	923.0
2100-8929-000	68.62%	928.0
2100-8929-000	0.63%	930.2
2100-8931-000	21.53%	908.0
2100-8931-000	78.47%	923.0
2100-8931-000	21.53%	908.0
2100-8931-000	78.47%	923.0
2100-8932-000	60.47%	184.2
2100-8932-000	39.53%	935.6
2100-8932-000	60.47%	184.2
2100-8932-000	39.53%	935.6
2100-8934-000	50.12%	863.7
2100-8934-000	49.88%	892.7
2100-8934-000	50.12%	863.7
2100-8934-000	49.88%	892.7
2100-8937-000	100.00%	923.0
2100-8937-000	100.00%	923.0
2100-BUCU-DXX	100.00%	923.2
2100-BUCU-OHX	100.00%	923.2