

Docket	:	<u>A.17-10-007/008</u>
Exhibit Number	:	<u>ORA-12</u>
Commissioner	:	<u>L. Randolph</u>
ALJ	:	<u>R. Lirag</u>
Witness	:	<u>O. Enyinwa</u>



**OFFICE OF RATEPAYER ADVOCATES
CALIFORNIA PUBLIC UTILITIES COMMISSION**

**Report on the Results of Operations
for
San Diego Gas & Electric Company
Southern California Gas Company
Test Year 2019
General Rate Case**

**SCG – Gas System Integrity, Gas Transmission
Operation, and Gas Transmission**

San Francisco, California
April 13, 2018

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1 **SCG – GAS SYSTEM INTEGRITY, GAS TRANSMISSION OPERATION,**
2 **AND GAS TRANSMISSION**

3 **I. INTRODUCTION**

4 This exhibit presents the analyses and recommendations of the Office of
5 Ratepayer Advocates (ORA) regarding the Gas System Integrity, Gas Transmission
6 Operation, and Gas Transmission proposals of Southern California Gas Company
7 (SCG or SoCalGas) in its Test Year (TY) 2019 General Rate Case (GRC).

8 SCG’s transmission system transports gas from SCG’s various sources of
9 supply to the gas distribution system. SCG’s service territory spans from the
10 California–Arizona border to the Pacific Ocean and from the California–Mexico
11 border to Fresno County. Gas Transmission operates facilities in the counties of San
12 Bernardino, Riverside, Imperial, Orange, Los Angeles, Ventura, Santa Barbara,
13 Kern, Tulare, Kings, San Luis Obispo and San Diego. The transmission system
14 consists of approximately 2,751 miles of pipeline, eleven compressor stations and
15 four underground storage fields.

16 The transmission system is designed to receive natural gas from interstate
17 pipelines and various California offshore and onshore production sources. The
18 quality of the gas is analyzed then measured, and the pipeline-quality gas is
19 delivered to SCG’s gas distribution system, gas storage fields, and certain non-core
20 customers.

21 **II. SUMMARY OF RECOMMENDATIONS**

22 **A. Gas System Integrity**

23 The following summarizes ORA’s recommendations regarding Gas System
24 Integrity expenses:

25 **1. Non-Shared Expenses**

- 26 • ORA recommends an expense forecast of \$2.387 million,
27 compared to SCG’s request of \$4.734 million for Gas Operations
28 Staff & Training, for a difference of \$2.348 million.

- 1 • ORA recommends an expense forecast of \$1.408 million,
2 compared to SCG's request of \$2.890 million for Pipeline Safety &
3 Compliance, for a difference of \$1.482 million.
- 4 • ORA recommends an expense forecast of \$642,000, compared to
5 SCG's request of \$1.641 million for Damage Prevention, for a
6 difference of \$999,000.
- 7 • ORA recommends an expense forecast of \$521,000, compared to
8 SCG's request of \$3.830 million for Gas Operations Staff &
9 Training, for a difference of \$3.309 million.

10 **2. Shared Expenses**

- 11 • ORA recommends an expense forecast of \$362,000, compared to
12 SCG's request of \$629,000 for USS - VP Gas System Integrity, for
13 a difference of \$267,000.
- 14 • ORA recommends an expense forecast of \$192,000, as compared
15 to SCG's request of \$302,000 for Business Process ESS
16 Implementation and ESS Mobile Solutions. This reflects a
17 downward adjustment of \$110,000.
- 18 • ORA recommends an expense forecast of \$1.088 million,
19 compared to SCG's request of \$1.858 million for Work
20 Management & Databases, for a difference of \$770,000.
- 21 • ORA recommends an expense forecast of \$466,000, compared to
22 SCG's request of \$559,000 for Contract & Maintenance, for a
23 difference of \$93,000.
- 24 • ORA recommends an expense forecast of \$1.158 million,
25 compared to SCG's request of \$1.952 million for Operator
26 Qualification, for a difference of \$794,000.
- 27 • ORA recommends an expense forecast of \$1.118 million,
28 compared to SCG's request of \$2.553 million for Enterprise
29 Geographic Information System (EGIS), for a difference of \$1.435
30 million.
- 31 • ORA recommends an expense forecast of \$117,000, compared to
32 SCG's request of \$537,000 for Shared Public Awareness Activities,
33 for a difference of \$420,000.
- 34 • ORA recommends an expense forecast of \$536,000, compared to
35 SCG's request of \$853,000 for Pipeline Safety & Compliance
36 Manager, for a difference of \$317,000.
- 37 • ORA recommends an expense forecast of \$850,000, compared to
38 SCG's request of \$2.550 million for Records Management, for a
39 difference of \$1.700 million.

1 Table 12-1 compares ORA's and SCG' 2019 Gas System Integrity
 2 expense forecasts:

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 4
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Table 12-1
Gas System Integrity O&M Expenses for 2019
(in Thousands of 2016 Dollars)

Description (a)	ORA Recommended (b)	SCG Proposed ¹ (c)	Amount SCG>ORA (d=c-b)
Non-Shared			
Gas Operations Staff & Training	\$2,387	\$4,734	\$2,348
Pipeline Safety & Compliance	\$1,408	\$2,890	\$1,482
Damage Prevention	\$642	\$1,641	\$999
Asset Management	\$2,503	\$2,503	\$0
Gas Contractor Controls	\$521	\$3,830	\$3,309
Total Non-Shared	\$7,461	\$15,598	\$8,138
Shared			
USS - VP GAS SYSTEM INTEGRITY	\$362	\$629	\$267
BUSINESS PROCESS ESS IMPLEMENTATION AND ESS MOBILE SOLUTIONS APPLICATIONS	\$192	\$302	\$110
ESS PRODUCTION SUPPORT	\$478	\$478	\$0
WRK MGMT & DATABASES	\$666	\$666	\$0
CONTRACT & MAINTENCANCE	\$1,088	\$1,858	\$770
FIELD TECHNOLOGIES	\$466	\$559	\$93
GAS SYSTEM INTEGRITY STAFF & PROGRAMS	\$415	\$415	\$0
OPERATOR QUALIFICATION	\$320	\$320	\$0
PIPELINE SYSTEM CONSTRUCTION POLICY	\$1,158	\$1,952	\$794
QUALITY & RISK	\$1,846	\$1,846	\$0
ENTERPRISE GEOGRAPHIC INFORMATION SYSTEM (EGIS)	\$1,215	\$1,215	\$0
SHARED PUBLIC AWARENESS ACTIVITIES	\$1,118	\$2,553	\$1,435
PIPELINE SAFETY & COMPLIANCE MANAGER	\$117	\$537	\$420
PIPELINE SAFETY OVERSIGHT	\$536	\$853	\$317
RECORDS MANAGEMENT	\$573	\$573	\$0
Total Shared	\$850	\$2,550	\$1,700
Total Shared	\$11,400	\$17,307	\$5,907

¹ Ex. SCG-05-R, p. OR-24, Table OR-7 (non-shared) and Ex. SCG-05-R, p. OR-47, Table OR-13 (shared).

1 **B. Gas Transmission Operation**

2 The following summarizes ORA’s recommendations regarding Gas
 3 Transmission O&M expenses:

4 **1. Non-Shared Expenses**

- 5 • ORA recommends an expense forecast of \$2.229 million,
 6 compared to SCG’s request of \$26.467 million² for Technical
 7 Services, for a difference of \$24.238 million. SCG has only
 8 described the routine O&M activities typical of gas companies,
 9 which are already provided for in rates.
- 10 ○ ORA opposes the entire \$7.162 million requested regarding
 11 SCG’s cost recovery proposal for the North-South Project
 12 included therein.

13 **2. Shared Expenses**

- 14 • ORA does not oppose SCG’s shared expense forecasts.

15 Table 12-2 compares ORA’s and SCG’ 2019 Gas Transmission
 16 Operation expense forecasts:

17 **Table 12-2**
 18 **Gas Transmission Operation O&M Expenses for 2019**
 19 **(in Thousands of 2016 Dollars)**

Description (a)	ORA Recommended (b)	SCG Proposed ³ (c)	Amount SCG>ORA (d=c-b)
Non-Shared			
Gas Transmission Pipelines	\$14,463	\$14,463	\$0
Compressor Stations	\$9,987	\$9,987	\$0
Technical Services	\$2,229	\$26,467	\$24,238
Total Non-Shared	\$26,681	\$50,918	\$24,238
Shared			
Director Gas Transmission	\$239	\$239	\$0
Field Operations Managers	\$419	\$419	\$0
Technical Services Manager	\$356	\$356	\$0
Total Shared	\$1,014	\$1,014	\$0

² This amount includes the requested amount of \$7.162 million for the Southern Gas System Reliability Project Abandonment Recovery. See Decision (D.) 16-07-015.

³ Ex. SCG-06, p. EAM-9, Table EAM-6 (non-shared) and Ex. SCG-06, p. EAM-20, Table EAM-8 (shared).

1 **C. Gas Transmission**

2 ORA recommends capital expenditures of \$114.443 million in 2017, \$162.012
3 million in 2018, and \$157.247 million in TY 2019, compared to SCG's request of
4 \$135.413 million, \$181.837 million, and \$178.776 million, respectively.

5 The following summarizes ORA's recommendations regarding Gas
6 Transmission capital expenditures:

- 7 • ORA does not oppose SCG's 2017 recorded amounts associated
8 with all its capital categories.
- 9 • ORA does not oppose SCG's 2018 and 2019 forecasts associated
10 with Gas Transmission New Pipelines, Pipeline Relocations, and
11 Measurement & Regulation Stations.
- 12 • ORA recommends an Auxiliary Equipment forecast of \$5.661
13 million for 2018 and \$5.661 for 2019, as compared to SCG's
14 forecasts of \$9.096 million and \$12.750, respectively.
- 15 • ORA opposes SCG's 2018 and 2019 forecasts for Compressor
16 Stations, equal to \$103.351 million and \$116.626 million,
17 respectively, and instead recommends \$92.888 million for 2018 and
18 \$107.168 million for TY 2019.

1 Table 12-3 compares ORA's and SCG' 2017-2019 capital expenditure
 2 forecasts:

3 **Table 12-3**
 4 **Gas Transmission Capital Expenditures for 2017-2019**
 5 **(in Thousands of 2016 Dollars)**

Description	ORA Recommended			SCG Proposed ⁴		
	2017 ⁵	2018	2019	2017	2018	2019
New Pipeline	\$17,313	\$7,383	\$7,383	\$8,543	\$7,383	\$7,383
Pipeline Replacement	\$33,024	\$26,358	\$10,499	\$30,194	\$26,358	\$10,499
Pipeline Relocations	\$5,223	\$10,476	\$5,922	\$11,596	\$10,476	\$5,922
Compressor Stations	\$24,979	\$92,888	\$107,168	\$50,432	\$103,351	\$116,626
Cathodic Protection	\$5,629	\$6,235	\$6,658	\$5,000	\$6,235	\$6,658
Measurement & Regulation	\$22,521	\$18,938	\$18,938	\$18,938	\$18,938	\$18,938
Auxiliary Equipment	\$5,744	\$5,661	\$5,661	\$10,710	\$9,096	\$12,750
Total	\$114,433	\$166,571	\$162,229	\$135,413	\$181,837	\$178,776

6

7 **III. GAS SYSTEM INTEGRITY O&M EXPENSES**

8 **A. Overview of SCG's Request**

9 SCG's request of Gas System Integrity O&M expenses for Gas Transmission
 10 is presented in testimony Exhibit (Ex.) SCG-05-R and work papers Exhibit SCG-05-
 11 WP. ORA addresses SCG's forecasts of \$32.904 million⁶ for Gas System Integrity

⁴ Ex. SCG-07, p. MAB-9, Table JGT-6.

⁵ The capital expenditures for the various work categories in the recorded 2017 capital expenditures provided by SCG in its email dated March 12, 2018 and its workpapers do not match the capital expenditure in SCG's response to data request ORA-SCG-DR-160. ORA has assigned expenditures where they match and has assigned them under Blanket Projects when they do not match.

⁶ SCG Direct Testimony of Omar Rivera, Ex. SCG-05-R, p.OR-vi.

1 O&M expenses for TY 2019, comprising \$15.598 million for non-shared service
 2 activities and \$17.306 million for shared service activities.

3 SCG provides natural gas service to most communities in Southern
 4 California. Gas System Integrity performs activities that provide technical guidance
 5 to support both Non-Shared and Shared day-to-day functions for Pipeline Integrity,
 6 Gas Transmission, Storage and Gas Distribution. These activities are broken down
 7 into various categories such as Gas System Integrity, Records Management and
 8 Programs, Pipeline System Construction Policy, Pipeline System Maintenance,
 9 Enterprise System Support, Enterprise Geographic Information System and Gas
 10 Operations Training and Development. It also includes activities in Emergency
 11 Services and Public Awareness.

12 Gas System Integrity O&M expenses forecast for Non-Shared services for
 13 2019 is \$15.598 million, which is over three times the recorded 2016 amount of
 14 \$4.775 million. The Shared forecast for 2019 is \$17.306 million, which is more than
 15 double the 2016 recorded amount of \$8.193 million.

16 The SCG forecasts of the total Gas System Integrity expense (Non-Shared +
 17 Shared), ORA recommendations, along with the 2012 to 2016 recorded data are
 18 tabulated in Table 12-4 and shown in bar chart form in Figure 12-1.

19 **Table 12-4**
 20 **Gas System Integrity Non-Shared and Shared O&M Expenses**
 21 **2012-2016 Recorded and 2019 Forecast**
 22 **(in Thousands of 2016 Dollars)**

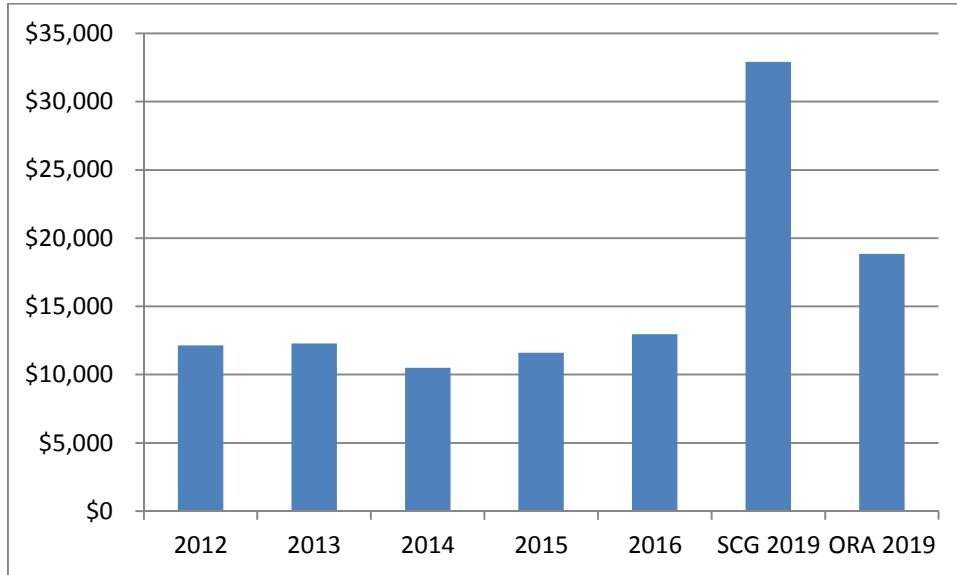
Description	2012	2013	2014	2015	2016	SCG 2019	ORA 2019
Non-Shared Services	\$4,334	\$4,223	\$2,761	\$4,306	\$4,775	\$15,598	\$7,460
Shared Services	\$7,809	\$8,077	\$7,742	\$7,313	\$8,193	\$17,306	\$11,393
Total	\$12,143	\$12,300	\$10,503	\$11,619	\$12,968	\$32,904	\$18,853

23 Source: 2012-2016 data provided by SCG via email dated January 25, 2018 and SCG 2019 forecast
 24 from Ex. SCG-05-R, p. OR-iv.

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Figure 12-1
Gas System Integrity Non-Shared and Shared O&M Expenses
2012-2016 Recorded and 2019 Forecast
(in Thousands of 2016 Dollars)



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6 **B. ORA's Analysis**

7 SCG has stated a summary of the following reasons as the cost drivers
8 behind its request:⁷

- 9 • Increased regulatory pressure for stricter compliance.
- 10 • Increased turnover in workforce.
- 11 • RAMP Report assessment of key safety risks for SCG and SDG&E
- 12 and proposed plans for mitigating those risks.

13 ORA conducted an analysis of the programs included in Gas System Integrity
14 O&M expense. The initial analysis included a review of the historical, adjusted-
15 recorded expense amounts in each account for the last five years (2012-2016), as
16 supplied by SCG.⁸ ORA's review focused on SCG's significant O&M request
17 increases of \$32.904 million for 2019 relative to the 2016 adjusted-recorded amount

⁷ SCG Direct Testimony of Omar Rivera, Ex. SCG-05-R, p. OR-7.

⁸ 2012 to 2016 data provided by SCG via email dated January 25, 2018.

1 of \$12.968 million. The requested 2019 O&M expenses for **Non-Shared** operation
2 is \$15.598 million as compared to the 2016 adjusted-recorded amount of \$4.775
3 million, and the requested amount for **Shared** operation is \$17.306 million as
4 compared to the 2016 adjusted-recorded amount of \$8.193 million.

5 Non-Shared Services are the activities undertaken by SCG solely for the
6 benefit of SCG and not SDG&E and its affiliates.⁹ SCG claims that the request for
7 an increased expense forecast is based on its proposal to expand the scope of
8 activity in the following areas:

- 9 • Gas Operations Staff & Training;
- 10 • Pipeline Safety & Compliance;
- 11 • Damage Prevention;
- 12 • Asset Management
- 13 • Gas Contractor Controls.

14 With the exception of Asset Management, ORA has recommended
15 adjustments to SCG's forecasts in the other categories.

16 Shared Services are activities performed by a utility Shared Services
17 department for the benefit of: SDG&E or SCG, Sempra Energy Corporate Center
18 and/or any regulated subsidiaries.¹⁰

19 Observation of the historical data in Table 12-4 and Figure 12-1 shows that
20 the 2016 adjusted-recorded data is generally consistent with the data from 2012 to
21 2015. ORA understands that new programs and new requirements can result in the
22 increase of costs from 2016 to 2019. Therefore, ORA recommends that for both
23 Non-Shared and Shared operations, SCG's requested incremental increases from
24 2016 to 2019 be allowed. However, ORA's forecast reflects the use of the 2016
25 adjusted-recorded amount instead of SCG's use of the five-year average, 2016
26 adjusted-recorded and zero-based method for its 2019 forecast as the baseline for

⁹ SCG Direct Testimony of Omar Rivera, Ex. SCG-05-R, p. OR-24, lines 1-3.

¹⁰ SCG Direct Testimony of Omar Rivera, Ex. SCG-05-R, p. OR-47, lines 1-5.

1 the incremental increases in various categories. These incremental increases will be
2 added to the 2016 adjusted recorded amounts.

3 **Table 12-5**

4 **Gas System Integrity Non-Shared and Shared O&M Expenses**
5 **2016 Recorded, Incremental Increase and ORA's 2019 Recommendations**
6 **(in Thousands of 2016 Dollars)**
7

Description	SCG's Recorded 2016	Incremental Increase	ORA 2019 Recommendations
Non-Shared Services	\$4,775	\$2,683	\$7,460
Shared Services	\$8,193	\$3,198	\$11,393
Total	\$12,968	\$5,881	\$18,853

8
9 The non-shared O&M incremental increase is \$2.683 million. The ORA 2019
10 recommendation for Non-Shared operations is \$7.460 million (\$2.683 + \$4.775
11 million). The shared O&M incremental increase is \$3.198 million. The ORA 2019
12 recommendation for Shared operations is \$11.393 million (\$3.198 million + \$8.195
13 million).

14 The ORA 2019 recommendations for Non-Shared operations is \$7.460
15 million, and for the Shared operations is \$11.393 million.

16 **IV. GAS TRANSMISSION OPERATION O&M EXPENSES**

17 **A. Overview of SCG's Request**

18 SCG's request of O&M expenses for Gas Transmission is presented in Ex.
19 SCG-06 and workpapers Ex. SCG-06-WP. SCG has requested a total of \$51.934
20 million¹¹ for Gas Transmission Operation and Maintenance (O&M) expenses for TY
21 2019, which comprises \$50.918 million for Non-Shared service activities and \$1.016
22 million for Shared service activities. O&M expenses are for work activities that cover
23 all gas transmission and storage assets. These expenses are routine in nature and

¹¹ SCG Direct Testimony of Beth Musich, Ex. SCG-06, p. EAM-iii.

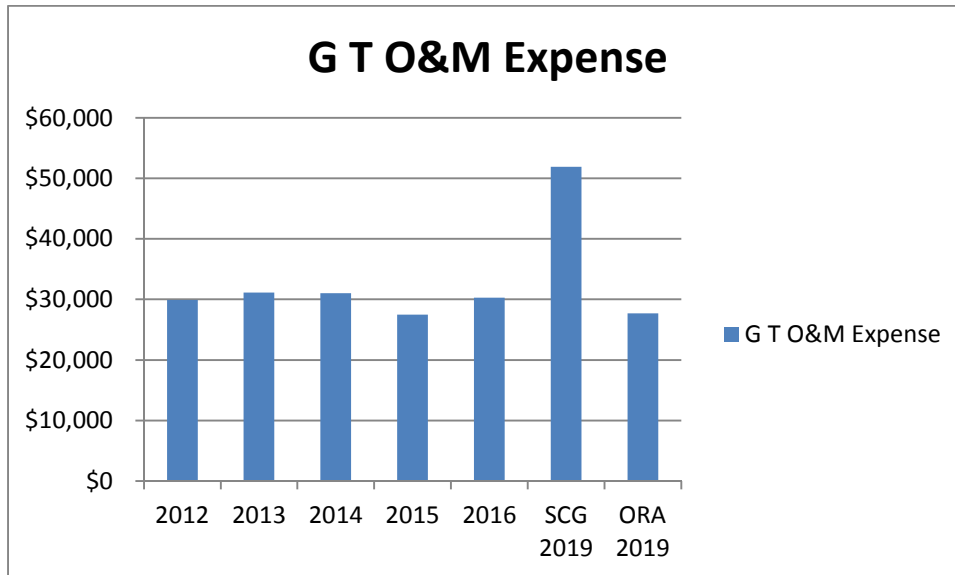
1 constitute the day-to-day expenses incurred by a gas transmission and storage
 2 company for its operations. The Non-Shared forecast of \$50.918 million is nearly
 3 75% more than the recorded 2016 amount of \$29.310 million. The Shared forecast
 4 for 2019 is \$1.014 million, which is 7% above the 2016 recorded amount of
 5 \$949,000. As shown in Table 12-5 and Figure 12-2, SCG's recorded O&M expenses
 6 from 2012 to 2016 have remained relatively flat or within the same range.

7 **Table 12-6**
 8 **Gas Transmission O&M Expenses**
 9 **2012-2016 Recorded and 2019 Forecast**
 10 **(in Thousands of 2016 Dollars)**

Description	2012	2013	2014	2015	2016	SCG 2019	ORA 2019
Non-Shared Expense	\$28,855	\$30,036	\$29,971	\$26,458	\$29,310	\$50,918	\$26,681
Shared Expense	\$1,023	\$1,063	\$1,037	\$1,003	\$949	\$1,014	\$1,014
Total	\$29,878	\$31,099	\$31,008	\$27,461	\$30,259	\$51,932	\$27,695

11 Source: 2012-2016 data provided by SCG via email dated January 25, 2018 and SCG 2019 forecast
 12 from Ex. SCG-06, p. EAM-9, Table EAM-6.

13 **Figure 12-2**
 14 **Gas Transmission O&M Expenses**
 15 **2012-2016 Recorded and 2019 Forecast**
 16 **(in Thousands of 2016 Dollars)**



17

1 **B. ORA's Analysis**

2 SCG system O&M activities are largely driven by the rules established in the
3 U.S. Code of Federal Regulations (49 CFR §192), and the Commission's General
4 Order (GO) 112-F. These rules specify various types of activities, such as the
5 preparation of O&M plans, inspection, testing, leak surveys, patrolling, other
6 activities, and their frequency. Some transmission O&M work is performed for SCG
7 by outside contractors. Costs for work done by outside contractors are included in
8 portions of various O&M programs. Contractors are also used for gas leak surveys
9 and patrols.

10 ORA conducted an analysis of the programs included in GT&S O&M
11 expense. ORA's analysis included a review of the historical, adjusted-recorded
12 expense amounts in each account for the last five years (2012-2016).

13 ORA does not oppose SCG's request for 2019 O&M expenses except in one
14 area: Non-Shared O&M services for Technical Services. Most O&M expenses are
15 considered normal day to day activities in the running of a natural gas transmission
16 system in order to be in compliance with regulations and ensure the safety of
17 employees and the public in general. ORA considers these functions listed above to
18 be an integral part of routine pipeline O&M and these expenses are already being
19 amply funded in rates and historical, recorded data.

20 SCG has not demonstrated, in the cost category of Technical Services, that
21 current recorded expenses do not provide sufficient funding. The cost drivers
22 presented by SCG are not unique but rather routine in nature.

23 **1. Technical Services**

24 Technical Services activities include the activities of design engineering,
25 instrumentation, control, project support and environmental services in support of the
26 day-to-day O&M of the gas transmission system. Some of these activities include
27 right-of-way maintenance, troubleshooting technical issues for both capital and O&M
28 projects, class location mitigation and satellite monitoring of ground movement.
29 These activities are routine and occur daily, hence, they have been covered through
30 recorded base year expenses.

1 SCG is requesting \$26.467 million for Technical Services for TY 2019. None
 2 of SCG's historical recorded expenses for Technical Services are comparable to its
 3 2019 forecast amount. Table 12-6 below shows the recorded expense figures for
 4 Technical Services from 2012 through 2016. As the table shows, the Technical
 5 Services historical expenses are not volatile and do not show either an upward or
 6 downward trend. Therefore, ORA used the average of five-year recorded O&M
 7 expenses from 2012 to 2016, which is \$2.229 million, as its recommendation for TY
 8 2019.

9 **Table 12-7**
 10 **Non-Shared Gas Transmission Expenses**
 11 **2012-2016 Recorded and 2019 Forecast**
 12 **(in Thousands of 2016 Dollars)**

Description	2012	2013	2014	2015	2016	SCG 2019	ORA 2019
Technical Services	\$1,610	\$2,594	\$2,885	\$1,115	\$1,886	\$19,305	\$2,229
Non-Standard Escalation (NSE)	\$0	\$0	\$0	\$0	\$0	\$7,162 ¹²	\$0
Total	\$1,610	\$2,594	\$2,885	\$1,115	\$1,886	\$26,467	\$2,229

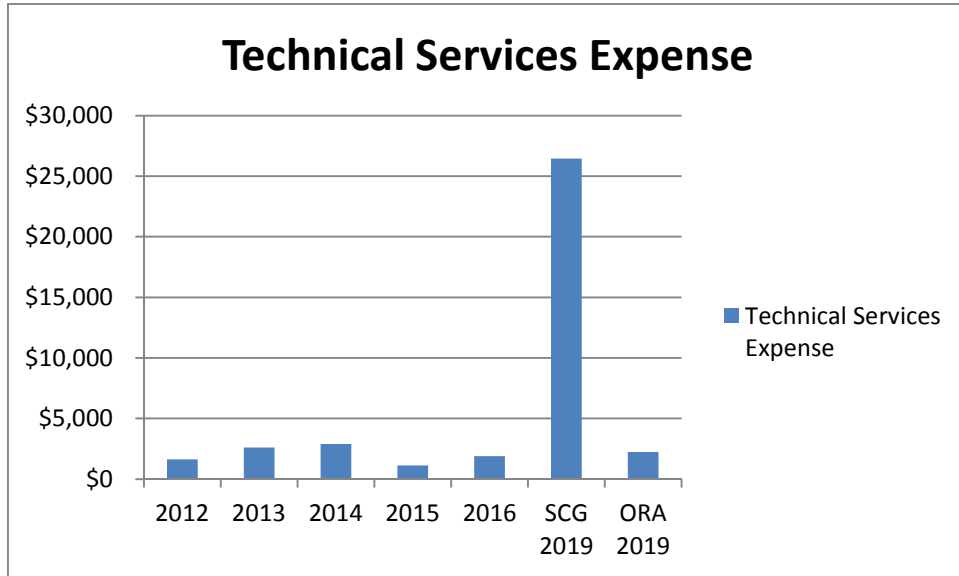
13 Source: 2012-2016 data provided by SCG via email dated January 25, 2018 and SCG 2019 forecast
 14 from Ex. SCG-06, p. EAM-9, Table EAM-6.

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¹² Per D.16-07-015, the Commission denied SCG & SDG&E Application (A.13-12-013) for authority to recover in rates the cost of constructing a new natural gas pipeline between the town of Adelanto and the Moreno Pressure Limiting Station and rebuilding the Adelanto Compressor Station. SCG & SDG&E seek to recover costs incurred for A.13-12-013.

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Figure 12-3
Gas Transmission O&M Expenses
2012-2016 Recorded and 2019 Forecast
(in Thousands of 2016 Dollars)



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6 Some of the cost drivers stated by SCG are in the following areas:¹³

7

- Class Location Mitigation (\$12.000 million);

8

- Right-Of-Way Maintenance (\$5.000 million);

9

- Contracts and Procurement Support Staffing (\$0.181 million);

10

- Technical Support Staffing (\$0.056 million);

11

- Satellite Monitoring of Ground Movement (\$0.050 million);

12

- Southern Gas System Reliability Project Abandonment Recovery also known as The North South Project (\$7.162 million).

13

14

SCG also cites the Risk Assessment Mitigation Phase (RAMP) as one of the

15

driving costs. At this time, ORA considers the RAMP program insufficiently

16

developed to dictate, or even substantially guide, funding decisions in the GRC.¹⁴

¹³ SCG Direct Testimony of Beth Musich, Ex. SCG-06, p.EAM-17, lines 12-19.

¹⁴ See Exhibit ORA-03 SDGE and SCG Safety Policy ERM RAMP-GRC Integration TIMP-DIMP PSEP (Stannik), p. 10, lines: 18-27 and p. 11-12.

1 The main cost drivers here are the HCA-Class Location Mitigation and the
 2 North South Project.¹⁵ The North South Project is discussed below. SCG claims
 3 that the reason for its increase in class location mitigation O&M expense is due to
 4 increasing residential, commercial and/or industrial developments that encroach on
 5 transmission pipelines and change the class location for the existing pipelines.¹⁶
 6 SCG also states that when the class location for a pipeline changes, SCG has two
 7 years to remediate the pipeline.¹⁷ However, in response to discovery, SCG
 8 confirmed that it had only increased its class location mitigation miles by 56 miles in
 9 4 years - from 1080 miles as reported in the 2012 Pipeline and Hazardous Materials
 10 Safety Administration (PHMSA) report to 1136 miles, as reported in the 2016
 11 PHMSA report.¹⁸ A breakdown of the recorded O&M expenses for actual class
 12 location mitigation projects performed from 2012 to 2016 is shown in Table 12-7
 13 below.¹⁹

14 **Table 12-7**
 15 **SCG's Recorded 2012-2016 Class Location Mitigation costs**

Description	2012	2013	2014	2015	2016	2017	Total
Miles	0.27	0.13	0.59	4.07	3.92	0.83	9.796
Hydro-Test Cost (O&M expense)	\$0	\$0	\$0	\$2,224	\$1,699	\$0	\$3,923
Replacement Cost (Capital Expense)	\$1,842	\$2,459	\$4,101	\$8,676	\$7,897	\$9,159	\$34,134

16 Source: SCG's Response to ORA-SCG-141-OE2, Q. 1

¹⁵ High Consequence Areas, or HCAs, are defined in 49 CFR 192.903. As a general matter, HCAs are areas of high population density.

¹⁶ See testimony at p. EAM-8, lines 7-9.

¹⁷ See testimony at p. EAM-8, lines 15-16.

¹⁸ See SCG's response to ORA-SCG-048-OE2, Q. 5a.

¹⁹ SCG's Response to ORA-SCG-141-OE2, Q. 1.

1 The recorded data above in Table 12-7 shows a total mileage of 9.796 miles
2 and O&M expenses for Class Mitigation of \$2.224 million and \$1.699 million for 2015
3 and 2016, respectively, and \$0 for the other years.

4 ORA recommends use of the five-year average recorded expenses for this
5 account, plus an incremental amount of \$211,000 which results in a forecasted
6 expense of \$2.229 million, instead of the \$19.305 million²⁰ requested by SCG for TY
7 2019. Use of the five-year average recorded expenses for Technical Services
8 reflects not only the most accurate forecast value, reflects the historical recorded
9 data and is more in harmony with the trend shown in Table 12-7 for Class Location
10 Mitigation, which is the main cost driver for Technical Services, and therefore is
11 consistent with the expected costs to maintain SCG's system which further supports
12 ORA's 2019 forecast.

13 ORA also recommends the Commission consider a Safety & Enforcement
14 Division (SED) audit of SCG's Class Location program, as the spike in forecast miles
15 may be indicative of remedial work occurring later than 24 months after the actual
16 class location change and have results of the audit reported in the next GRC

17 **2. South Gas System Reliability Project Abandonment** 18 **Recovery (The North-South Project)**

19 SCG & San Diego Gas & Electric (SDG&E) are seeking recovery of \$7.162
20 million for the Southern Gas System Reliability CPCN Project (North South Project)
21 which was denied by the Commission in 2016 via Decision (D.) 16-07-015.²¹ This
22 joint application was for authority to recover in rates the cost of constructing a new
23 natural gas pipeline between the town of Adelanto and the Moreno Pressure Limiting
24 Station and rebuilding the Adelanto Compressor Station.

25 The Commission rejected ratepayer funding of the project. The reasons for
26 the rejection are clearly laid out in D.16-07-015 and should end any argument that
27 ratepayers should pay anything for this failed project. Almost all of the premises

²⁰ Ex. SCG-06-WP, p. 27, the total amount of \$26.467 million includes the NSP cost recovery of \$7.162 million ($\$19.305 = \$26.467 - \7.162).

²¹ See D.16-07-015 Denying Decision for Application (A.) 13-12-013.

1 behind the project were found to be spurious. For instance, the utilities' reliance on
2 the "force majeure" theory was rejected when the Commission found that there were
3 other pipelines more than capable of handling such an emergency. "SCG itself
4 admits that the proposed North South project would not have solved any of those
5 situations except for the single force majeure event."²²

6 The Commission found that SCG failed to even meet the threshold
7 requirement to demonstrate the need for the project. D.16-07-015 stated that, "Even
8 if we accept that argument, it is clear from the record that the alternate physical
9 solutions proposed by Trans-Canada, Transwestern and EPNG all provide
10 redundant pipeline capacity at a significantly lower cost than the North-South
11 pipeline."²³ The Commission concluded that, there was never a need for the project
12 in the first place, and ratepayers should not be required to pay for any of the costs
13 associated with it. As the Commission noted in D.16-07-015, "[t]he supporting
14 testimony of Ms. Marelli presented data concerning support costs for the four-year
15 period 2009-2013, and data concerning customer deliveries and minimum flow
16 requirements for the period 2007-2013. These data, especially when combined with
17 more recent data for 2015 and 2016, do not support the conclusions reached by
18 SCG in this case".²⁴

19 The Commission correctly rejected the suggestion that the pipeline could
20 also serve Mexico by pointing out that Mexico has natural gas deposits and may
21 become a net gas exporter itself.²⁵ ORA recommends that this request be denied in
22 its entirety.

²² D.16-07-015, p.12.

²³ D.16-07-015, p.15.

²⁴ D.16-07-015, p.10-11

²⁵ D.16-07-015, p.13.

1 **V. GAS TRANSMISSION**

2 **A. Summary of Gas Transmission Capital Expenditures: 2012 – 2016**

3 SCG’S request of capital expenditures for Gas Engineering is presented in its
4 testimony Ex. SCG-07 and workpapers Ex. SCG-07-WP. Gas Transmission capital
5 includes plant investments to replace, repair, protect, and construct new gas
6 transmission facilities for SCG’s transmission system. Some of these plant additions
7 are construction of new pipelines, pipeline replacements due to class location
8 changes, meter and regulator replacements, cathodic protection installation and
9 upgrading/replacing auxiliary equipment. Table 12-8 shows the Gas Transmission
10 capital expenditures from 2012-2016.

11 **Table 12-8**
12 **Gas Transmission**
13 **Recorded 2012-2016 Capital Expenditures**
14 **(in Thousands of Dollars)**

Description	2012	2013	2014	2015	2016
New Pipeline	\$25,796	\$4,239	(\$74)	\$1,969	\$4,985
Pipeline Replacement	\$4,294	\$4,571	\$5,192	\$18,857	\$16,564
Pipeline Relocations	\$5,248	\$2,279	\$15,276	\$2,184	\$4,218
Compressor Stations	\$9,213	\$6,219	\$7,450	\$17,899	\$19,063
Cathodic Protection	\$252	\$1,094	\$1,773	\$1,624	\$3,638
Measurement & Regulation	\$5,513	\$6,428	\$7,330	\$18,795	\$18,946
Auxiliary Equipment	\$7,001	\$8,194	\$4,297	\$5,491	\$3,321
Total	\$57,912	\$33,118	\$41,927	\$67,450	\$70,736

15 Source: 2012-2016 data provided by SCG via email dated January 25, 2018

16 **B. Gas Transmission Capital Expenditures: 2017 – 2019**

17 The capital expenditures are grouped into several main categories. SCG’s
18 forecasts for each of the main categories are tabulated in Table 12-9 for 2017, 2018,
19 and 2019. The total capital expenditures request of these categories for 2017 is
20 \$135.413 million, for 2018 is \$181.837 million, and for 2019 is \$178.776 million. The
21 significant increases forecasted for 2018 and 2019 are primarily due to SCG’s
22 requests for compressor station upgrades and replacements. The cost increase
23 requests along with ORA’s recommendations are summarized for these categories

1 in Table 12-9. The historical costs for each of the categories are tabulated in Table
 2 12-10 for years 2012 to 2016. The total historical costs for each year and the SCG
 3 forecasts, along with ORA's recommendations for 2017 to 2019 are also shown in
 4 bar chart form in Figure 12-4.

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Table 12-9
Gas Transmission
SCG Forecast 2017-2019 Capital Expenditures²⁶
(in Thousands of Dollars)

Description	SCG 2017	SCG 2018	SCG 2019	ORA 2017 ²⁷	ORA 2018	ORA 2019
New Pipeline	\$8,543	\$7,383	\$7,383	\$17,313	\$7,383	\$7,383
Pipeline Replacement	\$30,194	\$26,358	\$10,499	\$33,024	\$26,358	\$10,499
Pipeline Relocations	\$11,596	\$10,476	\$5,922	\$5,223	\$10,476	\$5,922
Compressor Stations	\$50,432	\$103,351	\$116,626	\$24,977	\$91,520	\$105,800
Cathodic Protection	\$5,000	\$6,235	\$6,658	\$5,628	\$6,235	\$6,658
Measurement & Regulation	\$18,938	\$18,938	\$18,938	\$22,521	\$18,938	\$18,938
Auxiliary Equipment	\$10,710	\$9,096	\$12,750	\$5,744	\$5,661	\$5,661
Total	\$135,413	\$181,837	\$178,776	\$114,430	\$166,571	\$162,229

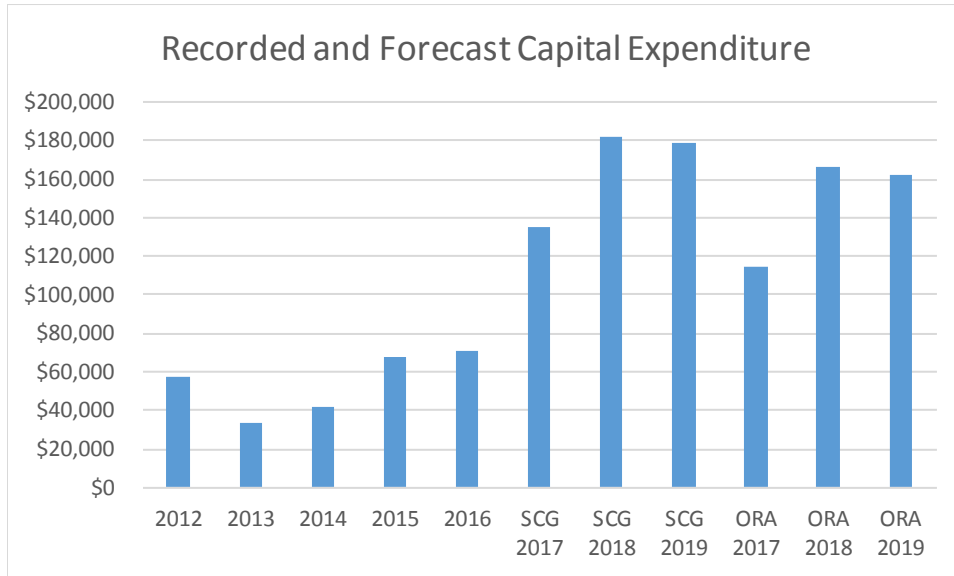
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²⁶ SCG-07-WP, p 1.

²⁷ ORA uses the 2017 adjusted-recorded capital expenditure as its forecast for 2017. This data was provided by SCG via email dated March 12, 2018. See Ex. ORA-01, Attachment 1.

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Figure 12-4
Gas Transmission Capital Expenses
2012-2016 Recorded and 2019 Forecast
(in Thousands of 2016 Dollars)



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6 **C. ORA's Analysis**

7 ORA reviewed and analyzed SCG's capital expenditures requests for each of
8 the categories. ORA supports many of the projects to enhance safety and system
9 reliability, such as in the areas of new pipeline construction, pipeline replacements,
10 measurement and regulation (M&R) station enhancements, cathodic protection and
11 pipeline relocations. As described below, ORA's capital expenditure forecasts in
12 some areas are lower than SCG's forecasts:

- 13 • For Compressor Stations, ORA recommends \$24.977 million,
14 \$91.520 million, and \$105.800 million for 2017, 2018, and 2019,
15 respectively, compared to SCG's request of \$50.432 million,
16 \$103.351 million, and \$116.626 million;
- 17 • For Auxiliary Equipment, ORA recommends \$5.744 million, \$5.661
18 million, and \$5.661 million for 2017, 2018, and 2019, respectively,
19 compared to SCG's request of \$10.710 million, \$9.096 million, and
20 \$12.750 million.

21 ORA recommends the Commission adopt ORA's forecasts for 2017 to 2019
22 in all categories as shown in Table 12-9.

1 **1. Compressor Station Capital Improvements**

2 SCG has requested \$50.432 million, \$103.351 million, and \$116.626 million
3 for 2017 to 2019, respectively, for Compressor Station capital improvements. The
4 historical capital expenditure in Table 12-10 below shows a steady increase in
5 capital spending with the exception of 2012.

6 **Table 12-10**
7 **Compressor Station Capital Improvements**
8 **2012-2017 Recorded Capital Expenditure**
9 **(in Thousands of 2016 Dollars)**

Description	2012	2013	2014	2015	2016	2017 ²⁸
Compressor Station	\$9,213	\$6,219	\$7,450	\$17,899	\$19,063	\$24,977
Total	\$9,213	\$6,219	\$7,450	\$17,899	\$19,063	\$24,977

10 Source: 2012-2016 data from Ex. SCG-07-WP, P 73 & 81

11 ORA acknowledges this trend but recommends ratepayer funding of project
12 specific spending for this capital category instead of SCG's blanket projects. The
13 trend has shown that SCG's capital forecast goals are usually not attained. In its last
14 2016 General Rate Case, SCG requested \$9.883 million, \$32.250 million, and
15 \$79.639 million for years 2014 to 2016.²⁹ Table 12-10 above shows that only \$7.450
16 million, \$17.899 million, and \$19.063 million were actually expended for years 2014
17 to 2016 respectively. For this rate case SCG has requested \$50.432 million for 2017.
18 Actual recorded expenditures for 2017³⁰ were \$24.977 million, which is about 50%
19 of SCG's 2017 forecast.

20 The specific projects ORA recommends for capital additions are the following:

- 21
- M03150.001 Rule 1160 Upgrades

²⁸ SCG provided recorded 2017 Gas Transmission Capital expenditures via email dated March 12, 2018. See Ex. ORA-01, Attachment 1.

²⁹ See SCG Direct Testimony of Raymond K. Stanford, Gas Engineering, dated July 2014, p. RKS-66, Table RKS-22.

³⁰ SCG provided recorded 2017 Gas Transmission Capital expenditures via email dated March 12, 2018. See Ex. ORA-01, Attachment 1.

- 1 • M03150.006 North Needle Install 3 Check Valve
- 2 • M03150.007 Newberry Springs Castone Generator Overhaul and
- 3 Catalyst Replacement
- 4 • M03150-010 Blythe Station-Cooling Tower Upgrades
- 5 • M03150.011 Replace Buried Station Bypass Valve – Newberry
- 6 Springs
- 7 • M03150.013 Wheeler Ridge Filter Separator V-101
- 8 • M03350.004 Blythe Compressor Project Phase 1
- 9 • M03350.005 Blythe Compressor Project Phase 2

10 ORA opposes projects that are generic/non-specific. SCG has emphasized n
 11 the importance of the projects listed above, but given their track record, should be
 12 held accountable to complete these forecasted capital projects. ORA’s Compressor
 13 Stations forecasts for 2017, 2018, and 2019 are \$24.977 million (recorded), \$91.520
 14 million, and \$105.800 million, respectively.

15 **2. Auxiliary Equipment and Projects**

16 Auxiliary Equipment is for equipment used to support the natural gas
 17 transmission system that cannot appropriately be assigned to a specific project.
 18 Some of the typical project activities are physical security upgrades, moisture
 19 analyzers, installation of strain gauges, and equipment to assist SCG with real-time
 20 monitoring of land movement and intrusion.

21 For Auxiliary Equipment and Projects, SCG has requested \$10.710 million,
 22 \$9.096 million, and \$12.750 million for 2017 to 2019, respectively. The historical
 23 capital expenditures in Table 12-13 below do not show any particular trend.

24 **Table 12-13**
 25 **Auxiliary Equipment**
 26 **2012-2016 Recorded Capital Expenditure**
 27 **(in Thousands of 2016 Dollars)**

Description	2012	2013	2014	2015	2016
Auxiliary Equipment	\$7,001	\$8,194	\$4,297	\$5,491	\$3,321
Total	\$7,001	\$8,194	\$4,297	\$5,491	\$3,321

28 Source: 2012-2016 data from Ex. SCG-07-WP, p.158.

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Table 12-14
Auxiliary Equipment
2017-2019 Capital Expenditure Forecast
(in Thousands of 2016 Dollars)

Description	ORA Recommended			SCG Proposed ³¹		
	2017 ³²	2018	2019	2017	2018	2019
Auxiliary Equipment	\$5,744	\$5,661	\$5,661	\$10,710	\$9,096	\$12,750
Total	\$5,744	\$5,661	\$5,661	\$10,710	\$9,096	\$12,750

5 Source: Ex. SCG-07-WP, P.158

6 ORA recommends using the five-year (2012-2016) average of recorded
7 capital expenditures for this account, which results in a forecast of \$5.661 million per
8 year for 2018 and 2019, instead of the \$9.096 million and \$12.750 million requested
9 by SCG for those years. ORA also recommends adopting the 2017 recorded capital
10 expenditure of \$5.744 million.³³ Use of the five-year average of recorded
11 expenditures for Auxiliary Equipment & Project captures the variance within the 2012
12 to 2016 recorded numbers, is consistent with both the recorded spending of \$5.744
13 million for 2017, and the expected costs to support operations of the transmission
14 pipelines which are not project specific.

³¹ Ex. SCG-07, p. MAB-25, Table JGT-15.

³² ORA has adopted the recorded 2017 recorded capital expenditure provided by SCG via email dated March 12, 2018 as its recommendation for 2017. See Ex. ORA-01, Attachment 1.

³³ ORA has accepted the recorded 2017 recorded capital expenditures provided by SCG via email dated March 12, 2018 as its recommendation for 2017. See Ex. ORA-01, Attachment 1.

1

WITNESS QUALIFICATIONS

2 My name is Oge Enyinwa. My business address is 505 Van Ness Avenue,
3 San Francisco, California 94102. I am employed by the Office of Ratepayer
4 Advocates as a Utilities Engineer in the Energy Safety and Infrastructure Branch.

5 I received a Bachelor of Science degree in Electrical & Electronics
6 Engineering (Power Systems Engineering emphasis) from The Federal University of
7 Technology, Nigeria. I am also a California licensed Professional Engineer.

8 Prior to joining the California Public Utilities Commission (Commission), I
9 worked as an engineering intern with Mobil Exxon and moved from there to
10 Continental Transmitter Services, as an Associate Engineer.

11 I joined the Commission as a Utilities Engineer in 2008. I have worked on
12 water, electric and gas industry issues. My responsibilities have included
13 sponsoring reports/testimony in proceedings, such as reasonableness reviews,
14 pipeline safety, technical research and reports, natural gas proceedings,
15 infrastructure expansions, incentive ratemaking, OIIs, CPCNs, General Rate Cases,
16 rate design, conflict resolutions between water companies and the rate payers and
17 serving in the capacity of a technical adviser to ALJs in formal proceedings.

18 This completes my prepared testimony.