

Docket	:	<u>A.17-10-007/008</u>
Exhibit Number	:	<u>ORA-13</u>
Commissioner	:	<u>L. Randolph</u>
ALJ	:	<u>R. Lirag</u>
Witness	:	<u>Y. Lasko</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**

SoCalGas – Gas Major Projects & Gas Engineering
SDG&E – Gas Engineering

San Francisco, California
April 13, 2018

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1. Expenses

- ORA does not oppose SCG’s proposed non-shared expenses for gas major projects in 2019.

Table 13-1 compares ORA’s and SoCalGas’ 2019 Gas Major Projects expense forecasts:

Table 13-1
SCG Gas Major Projects 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)
Management & Outreach	\$3,646	\$3,646	\$0
Project & Construction Mgmt	\$201	\$201	\$0
Project Controls	\$124	\$124	\$0
Total Non-Shared	\$3,971	\$3,971	\$0

2. Capital Expenditures

- ORA recommends that the Commission adopt SCG’s 2017 adjusted-recorded capital expenditure amount of \$143,095.
- ORA does not oppose SoCalGas’ proposed 2018 and 2019 proposed capital expenditures for methane monitors & fiber-optic projects, Distribution Operations Control Center and Pipeline Infrastructure Monitoring System.

¹ Ex. SCG-08-R, p. MAB-9, Table MAB-11.

1 Table 13-2 compares ORA's and SoCalGas' 2017-2019 Gas Major Projects
 2 capital expenditure forecasts:

3 **Table 13-2**
 4 **SCG Gas Major Projects Capital Expenditures for 2017-2019**
 5 **(in Thousands of 2016 Dollars)**

Description	ORA Recommended			SoCalGas Proposed ²		
	2017	2018	2019	2017	2018	2019
Distr Operations Control Center	\$38	\$3,156	\$25,901	\$400	\$3,156	\$25,901
Methane Monitors & Fiber-Optic Projects	\$7	\$4,813	\$4,813	\$300	\$4,813	\$4,813
Pipeline Infrastructure Monitoring System	\$98	\$1,000	\$7,000	\$500	\$1,000	\$7,000
Total	\$143	\$8,969	\$37,714	\$1,200	\$8,969	\$37,714

6 **B. SCG Gas Engineering**

7 The following summarizes ORA's recommendations regarding SoCalGas'
 8 Gas Engineering costs:

9 **1. Non-Shared Expenses**

10 ORA reviewed SCG's testimony and workpapers and recommends the
 11 following:

- 12 • ORA does not oppose SCG's proposed expenses for gas
 13 engineering in 2019.
- 14 • ORA recommends a year-on-year (YOY) growth of 9.6% between
 15 2017-2019 for land services and right-of-way, which is the YOY
 16 growth for 2016-2017 based on actual recorded expense in 2017.
- 17 • ORA recommends a \$2.772 million forecast for land services and
 18 right-of-way in 2019, which is \$854,000 less than SCG's request.
- 19 • ORA recommends a memorandum account to track the cost for the
 20 renewal of rights-of-way, subject to reasonableness review.

² Ex. SCG-08-R, p. MAB-iv, Table MAB-2.

1 **3. Capital Expenditures**

2 ORA reviewed SCG’s testimony and workpapers and recommends the
3 following:

- 4 • ORA uses SCG’s 2017 adjusted-recorded capital expenditures of
5 \$3.892 million for land and right-of-way. ORA reviewed SCG’s
6 testimony and workpapers, including 2017 recorded costs and
7 recommends an average of the last two years as its forecast for
8 2018 and 2019. An average of 2016 and 2017 capital expenditures
9 is \$4.680 million.
- 10 • ORA uses SCG’s 2017 adjusted-recorded capital expenditures of
11 \$2.515 million for capital tools and lab equipment. ORA does take
12 issue with SCG’s proposed 2018 and 2019 capital expenditure
13 forecast for capital tools and lab equipment.
- 14 • ORA uses SCG’s 2017 adjusted-recorded capital expenditures of
15 \$4.504 million for supervision and engineering overheads. ORA
16 recommends a year-on-year growth of 8.43% between 2017-2019
17 for supervision and engineering overheads, which is an average of
18 the two-year growth in 2016 and 2017. Accordingly, ORA
19 recommends a forecast of \$4.884 million in 2018 and \$5.295 million
20 in 2019.

21 Table 13-4 compares ORA’s and SoCalGas’ 2017-2019 Gas Engineering
22 capital expenditure forecasts:

23 **Table 13-4**
24 **SCG Gas Engineering Capital Expenditures for 2017-2019**
25 **(in Thousands of 2016 Dollars)**

Description	ORA Recommended			SoCalGas Proposed ⁴		
	2017	2018	2019	2017	2018	2019
Land & Right-of-Way	\$3,892	\$4,680	\$4,680	\$5,468	\$5,468	\$5,468
Capital Tools & Lab Equipment	\$2,515	\$2,245	\$2,245	\$2,245	\$2,245	\$2,245
Trans & Storage Supv and Engineering Pool	\$4,504	\$4,884	\$5,295	\$4,909	\$5,648	\$6,388
Total	\$10,911	\$11,809	\$12,220	\$12,622	\$13,361	\$14,101

⁴ Ex. SCG-09, p. DRH-37, Table DRH-10.

1 **C. SDG&E Gas Engineering**

2 The following summarizes ORA’s recommendations regarding SDG&E’s Gas
3 Engineering capital expenditures:

- 4 • ORA recommends that the Commission adopt SDG&E’s 2017
5 adjusted-recorded capital expenditure amount of \$889,000 for land
6 rights, auxiliary equipment, and capital tools.
- 7 • ORA recommends zero funding in 2017 for supervision and
8 engineering overheads.
- 9 • ORA does not oppose SDG&E’s proposed capital expenditures of
10 \$268,000 in 2018 and 2019.

11 Table 13-5 compares ORA’s and SDG&E’s 2017-2019 Gas Engineering
12 capital expenditure forecasts:

13 **Table 13-5**
14 **SDG&E Gas Engineering Capital Expenditures for 2017-2019**
15 **(in Thousands of 2016 Dollars)**

Description	ORA Recommended			SD&GE Proposed ⁵		
	2017	2018	2019	2017	2018	2019
Land Rights	\$488	\$113	\$113	\$113	\$113	\$113
Auxiliary Equipment	\$295	\$28	\$28	\$28	\$28	\$28
Capital Tools	\$106	\$54	\$54	\$54	\$54	\$54
Supv & Engr Overhds	\$0	\$73	\$73	\$73	\$73	\$73
Total	\$889	\$268	\$268	\$268	\$268	\$268

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⁵ Ex. SDG&E-09, p. DRH-6, Table DRH-2.

1 **PART I: SoCALGAS GAS MAJOR PROJECTS**

2 **I. NON-SHARED EXPENSES**

3 **Table 13-6**
4 **SCG Gas Major Projects O&M Expenses**
5 **2012-2016 Recorded and 2019 Forecast**
6 **(in Thousands of 2016 Dollars)**

Description	2012	2013	2014	2015	2016	SCG 2019	ORA 2019
Mgmt & Outreach	\$218	\$339	\$388	\$574	\$933	\$3,646	\$3,646
Proj & Constr Mgmt	\$65	\$125	\$334	\$2,279	\$201	\$201	\$201
Project Controls	\$0	\$0	\$201	\$115	\$124	\$124	\$124
Total	\$283	\$464	\$923	\$2,968	\$1,258	\$3,971	\$3,971

7 Source: 2012-2016 data from Ex. SCG-08-WP. SCG 2019 forecasts from Ex. SCG-08-R, p. MAB-9,
8 Table MAB-11.

9 ORA reviewed SCG’s testimony and workpapers and recommends the
10 following:

- 11 • ORA does not oppose SCG’s proposed non-shared expenses for
12 gas major projects in 2019.

13 **A. Major Project Management and Outreach**

14 “This Cost Center grouping includes regulatory and program management
15 personnel who prepare regulatory filing information in support of major capital
16 projects. This team provides research, participates in the regulatory process, and
17 executes other related tasks.”⁶ SCG’s forecast method for major project
18 management and outreach “is based on 2016 recorded costs with adjustments
19 made for the resumption of required work activity for resources that were diverted to
20 the Aliso Incident in 2016, additions to support the DOCC and PIMS assets, and
21 forward-looking efficiencies attributable to implementation of FoF [Fueling-our-

⁶ Ex. SCG-08-R, p. MAB-12, lines 6-9.

1 Future] process improvements.”⁷ The major cost drivers are PIMS, methane
2 monitoring and fiber-optic monitoring systems “base O&M activities to support the
3 processes, people and governance associated with major projects, where those
4 costs are not otherwise assignable to capital projects.”⁸

5 ORA reviewed SCG’s testimony and workpapers and does not oppose SCG’s
6 proposed 2019 O&M expenses for major project management and outreach.

7 **B. Project & Construction Management – Facilities and**
8 **Pipelines**

9 “This Cost Center grouping, which is principally funded under capital,
10 represents the functional expertise and resources needed to perform or assist
11 technical development, consultation, planning, permitting, detailed design, material
12 specifications and management, infrastructure facility construction, and the
13 commissioning and general project management of major infrastructure projects.”⁹

14 SCG used a base year 2016 recorded costs without any adjustments to forecast
15 O&M expenses for 2019.

16 ORA reviewed SCG’s testimony and workpapers and does not oppose SCG’s
17 proposed 2019 project and construction management O&M expenses.

18 **C. Project Controls & Estimating, and Gas Contractor Controls**

19 The activities in this cost center grouping include: analyzing and developing
20 forecasts; cost estimating; schedule development, updating, and analysis; and
21 effectively managing the quality, safety and compliance of contractors conducting
22 work on the Company’s natural gas infrastructure.¹⁰ SCG used a base year 2016
23 recorded costs without any adjustments to forecast O&M expenses for 2019.

⁷ Ex. SCG-08-R, p. MAB-15, lines 28-31.

⁸ Ex. SCG-08-R, p. MAB-16, lines 3-4.

⁹ Ex. SCG-08-R, p. MAB-16, lines 9-13.

¹⁰ Ex. SCG-08-R, MAB-17, lines 22-26.

1 ORA reviewed SCG’s testimony and workpapers and does not oppose SCG’s
2 proposed 2019 project controls & estimating, and gas contractor controls O&M
3 expenses.

4 **II. SUMMARY OF GAS MAJOR PROJECTS CAPITAL**
5 **EXPENDITURES: 2012 – 2016**

6 SCG is proposing three new major gas projects: distribution operations
7 control center (DOCC), methane monitoring & fiber optic monitoring and pipeline
8 information monitoring system (PIMS). Because these are new projects with
9 scheduled expenditures beginning in 2017, there are no historical recorded costs for
10 2012-2016.

11 **III. GAS MAJOR PROJECTS CAPITAL EXPENDITURES: 2017 –**
12 **2019**

13 **A. Distribution Operations Control Center**

14 [T]he DOCC and related system of field sensors and control
15 assets, will strengthen SoCalGas and SDG&E’s ability to manage their
16 distribution pipeline operations system in real-time by use of modern
17 technology including remote and automated controls and the co-
18 location of a constantly-staffed DOCC facility with Gas Control
19 operations. This project will allow integrated operation of the
20 distribution and existing high-pressure transmission pipeline systems.
21 [... T]he forecasts for DOCC for 2017, 2018, and 2019 are \$400,000,
22 \$3,156,000, and \$25,901,000, respectively. The system is proposed
23 for build-out in phases from 2017 through 2021, and the associated
24 capital cost is \$108 million. The total capital to be expended through
25 2019 (\$29.457 million) is requested in this GRC.¹¹

¹¹ Ex. SCG-08-R, p. MAB-19, lines 13-21.

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Table 13-7
SCG Distribution Operations Control Center
2017-2019 Capital Expenditure Forecast
(in Thousands of 2016 Dollars)

Description	ORA Recommended			SoCalGas Proposed ¹²		
	2017	2018	2019	2017	2018	2019
Distr Op Control Cntr	\$38	\$3,156	\$25,901	\$400	\$3,156	\$25,901

5 ORA does not oppose SCG’s 2017 adjusted-recorded capital expenditures for
6 DOCC of \$38,148 and used it as its recommended forecast. ORA reviewed SCG’s
7 testimony and workpapers, including SCG’s responses to ORA’s data requests, and
8 does not oppose SCG’s proposed 2018 and 2019 capital expenditures.

9 **B. Methane Monitoring and Fiber-Optic Monitoring**

10 For the Fiber and Methane projects, SoCalGas and SDG&E
11 have committed in their planning for new pipelines to route fiber-optic
12 cabling along newly installed pipe sections which are 12” or greater in
13 diameter and more than one mile in contiguous length. [...] The
14 Company expects to install fiber-optic monitoring stations and place
15 into production a system when at least five miles of contiguous fiber is
16 installed along a pipeline route. These stations will light the fiber and
17 provide warning to operations and field response personnel when non-
18 native stress, strain, impact or temperature gradients occur along a
19 pipeline route. The monitoring stations will report any abnormal activity
20 to the PIMS where it can be viewed, acknowledged, and resolved.¹³

21 The methane monitoring project entails SoCalGas and SDG&E
22 installing 2,100 methane monitoring sensors along their pipeline routes
23 where their high-pressure pipelines 12” and greater in diameter are
24 located in close vicinity to facilities that are high-density in occupancy,
25 pose evacuation logistical challenges or have special implications to
26 commerce, such as bridges and transportation centers.¹⁴

¹² Ex. SCG-08-R, p. MAB-19, Table MAB-16.

¹³ Ex. SCG-08-R, p. MAB-28, lines 16-24.

¹⁴ Ex. SCG-08-R, p. MAB-30, lines 4-8.

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Table 13-8
SCG Methane Monitoring & Fiber-Optic Monitoring
2017-2019 Capital Expenditure Forecast
(in Thousands of 2016 Dollars)

Description	ORA Recommended			SoCalGas Proposed ¹⁵		
	2017	2018	2019	2017	2018	2019
Methane & Fiber-Optic Monitoring	\$7	\$4,813	\$4,813	\$300	\$4,813	\$4,813

5 ORA does not oppose SCG’s 2017 adjusted-recorded capital expenditures for
6 methane monitoring and fiber-optic monitoring of \$7,129 and used it as its
7 recommended forecast. ORA reviewed SCG’s testimony and workpapers and does
8 not oppose SCG’s proposed 2018 and 2019 methane monitoring and fiber-optic
9 monitoring capital expenditures.

10 **C. Pipeline Information Monitoring System and Pipeline**
11 **Monitoring**

12 SoCalGas and SDG&E plan the development and
13 implementation of a modern, centralized data system of field sensors
14 and computerized data management assets to monitor conditions
15 (external to the pipe) in real-time along the routes and rights-of-way of
16 large high-pressure gas pipelines to provide early warning, timely
17 response and mitigation of potential external threats to the physical
18 integrity of the pipelines. This system will link with multiple Company
19 information systems to provide for data sharing, historical trending and
20 dispatching of personnel in the event of an emergency.¹⁶

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Table 13-9
SCG Pipeline Monitoring System & Pipeline Monitoring
2017-2019 Capital Expenditure Forecast
(in Thousands of 2016 Dollars)

Description	ORA Recommended			SoCalGas Proposed ¹⁷		
	2017	2018	2019	2017	2018	2019
PIMS and Pipeline Monitoring	\$98	\$1,000	\$7,000	\$500	\$1,000	\$7,000

¹⁵ Ex. SCG-08-R, p. MAB-19, Table MAB-16.

¹⁶ Ex. SCG-08-R, p. MAB-25, lines 21-27.

¹⁷ Ex. SCG-08-R, p. MAB-19, Table MAB-16.

1 ORA recommends using SCG's 2017 adjusted-recorded capital expenditures of
2 \$97,818 for PIMS and Pipeline Monitoring as its forecast for 2017. ORA reviewed
3 SCG's testimony and workpapers and does not oppose SCG's proposed 2018 and
4 2019 PIMS and Pipeline Monitoring capital expenditures.

1 **PART II: SoCALGAS GAS ENGINEERING**

2 **I. NON-SHARED EXPENSES**

3 **Table 13-10**
4 **SCG Non-Shared O&M Expenses**
5 **2012-2016 Recorded and 2019 Forecast**
6 **(in Thousands of 2016 Dollars)**

Description	2012	2013	2014	2015	2016	SCG 2019	ORA 2019
Gas Engineering	\$4,666	\$4,754	\$5,242	\$5,209	\$5,680	\$8,600	\$8,600
Land Services & Right-of-Way	\$551	\$514	\$1,587	\$1,942	\$2,106	\$3,626	\$2,772
Total	\$5,217	\$5,268	\$6,829	\$7,151	\$7,786	\$12,226	\$11,372

7 Source: 2012-2016 data from Ex. SCG-09-WP. SCG 2019 forecasts from Ex. SCG-09, p. DRH-12,
8 Table DRH-6.

9 ORA reviewed SCG’s testimony and workpapers and recommends the
10 following:

- 11 • ORA does not oppose SCG’s proposed expenses for gas
12 engineering in 2019.
- 13 • ORA recommends a year-on-year (YOY) growth of 9.6% between
14 2017-2019 for land services and right-of-way, which is the YOY
15 growth for 2016-2017 based on actual recorded expense in 2017.
- 16 • ORA recommends a \$2.772 million forecast for land services and
17 right-of-way in 2019, which is \$854,000 less than SCG’s request.
- 18 • ORA recommends a memorandum account to track the cost for the
19 renewal of rights-of-way, subject to reasonableness review.

20 **A. Gas Engineering**

21 SCG’s testimony divides O&M gas engineering expenses into two categories:
22 (1) Engineering Analysis Center (EAC) & Measurement, Regulation, and Control
23 (MRC) and (2) Civil, Structural, and Hazard Mitigation Engineering (CSHME). For
24 the EAC & MRC category, SCG used a five-year average forecast method “because
25 it best reflects the costs associated with this mature organization and better

1 accounts for the work that ebbs and flows over time.”¹⁸ “However, new and
 2 enhanced regulations are emerging and thus requiring additional staffing and
 3 resources to comply. These incremental costs have been identified and added to
 4 the 5-year average.”¹⁹ For CSHME, SoCalGas used a base-year forecast method
 5 “because it best reflects the costs of this Engineering Design group. [...] Other
 6 forecasting methodologies, including five-year, are not appropriate because
 7 Engineering Design is responsible for new enhanced monitoring, specifically satellite
 8 monitoring, which did not occur in previous years.”²⁰ “In addition, incremental
 9 adjustments to the base year were included to represent the expense requirements
 10 anticipated in test year 2019 related to RAMP [Risk Assessment and Mitigation
 11 Phase]”²¹ report filed in 2016, SoCalGas – I.16-10-016.

12 ORA reviewed SCG’s testimony and workpapers and does not oppose SCG’s
 13 proposed 2019 O&M expenses for gas engineering.

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Table 13-11
SCG Gas Engineering Function O&M Expenses for 2019
(in Thousands of 2016 Dollars)

Description (a)	ORA Recommended (b)	SCG Proposed ²² (c)	Amount SCG>ORA (d=c-b)
Engineering Analysis Center & Measurement, Regulation and Control	\$6,083	\$6,083	\$0
Civil, Structural and Hazard Mitigation Engineering	\$2,517	\$2,517	\$0
Total Gas Engineering	\$8,600	\$8,600	\$0

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¹⁸ Ex. SCG-09, p. DRH-13, lines 16-18.

¹⁹ Ex. SCG-09-WP-R, p. 5 of 153.

²⁰ Ex. SCG-09, p. DRH-14, lines 16, 17, and 20-22.

²¹ Ex. SCG-09-WP-R, p. 23 of 153.

²² Ex. SCG-09, p. DRH-12 and -13, Table DRH-7.

1 **B. Land Services & Right-of-Way**

2 SoCalGas discusses two categories in its testimony on land services & right-
3 of way. “The first category is the general expenditures in the Land and Right-of-Way
4 department [...], and the second category is the request for (1) a two-way balancing
5 account for the Morongo Right-of-Way renewal efforts and (2) a memorandum
6 account to record pre-construction costs related to analyzing the potential for
7 relocating SoCalGas’ lines around the Morongo reservation.”²³

8 **1. General Land and Right-of-Way**

9 SoCalGas’ “forecast method developed for this category both for labor and
10 non-labor is the five-year linear method. This method is most appropriate because
11 the historical data indicate that activities and staffing levels have been steadily
12 increasing, and this trend is expected to continue.”²⁴ In 2017, SCG’s incurred
13 \$2.308 million in expenses, which is \$398,000 less than what was originally
14 forecasted for 2017 in the amount of \$2.706 million. ORA does not oppose SCG’s
15 2017 adjusted-recorded O&M expenses for land services and right-of-way, and
16 relies on that to develop its 2019 expense forecast of \$2.772 million.

17 **Table 13-12**
18 **Year-on-Year Growth**
19 **With 2012-2017 Recorded Costs and SCG and ORA 2019 Forecasts**

Description	2012	2013	2014	2015	2016	2017	2018	2019
(1) Land Services & Right-of-Way	\$551	\$514	\$1,587	\$1,942	\$2,106	\$2,706	\$3,110	\$3,625
(2) SCG's Proposed YOY growth		-6.7%	209%	22.4%	8.4%	28.4%	15.0%	16.6%
(3) SCG's Proposed with actual 2017	\$551	\$514	\$1,587	\$1,942	\$2,106	\$2,308	\$3,110	\$3,625
(4) SCG's Proposed YOY growth with 2017 recorded exp.		-6.7%	209%	22.4%	8.4%	9.6%	25.40%	13.10%
(5) ORA proposed						\$2,308	\$2,530	\$2,772
(6) ORA proposed YOY growth							9.6%	9.6%

²³ Ex. SCG-09-R, DRH-15, lines 3-7.

²⁴ Ex. SCG-09-R, DRH15-16, lines 23-25 and line 1.

1 The table above shows a SCG's proposed year-on-year (YOY) growth based
2 on historical trends from 2012-2016 and forecasted expenses for 2017-2019 using
3 SCG's five-year linear method in Row 2. Row 4 shows the change in SCG's
4 proposed YOY growth when the actual-recorded 2017 expenses are substituted for
5 the SCG's forecasted 2017 expenses without any changes made for 2018-2019
6 forecasts. ORA proposes to use the 2017 YOY growth of 9.6%²⁵ as a baseline to
7 forecast expenses in 2018 and 2019. ORA's proposal is based on the fact that in
8 the last two years, the YOY growth has been relatively similar at 8.4% in 2016 and
9 9.6% in 2017 when compared to years 2013-2015.

10 **2. Morongo Rights-of-Way**

11 SoCalGas operates three transmission pipelines (Lines 2000,
12 2001, and 5000) that cross federal land held in trust for the Morongo
13 Band of Mission Indians (Reservation) near Cabazon, California, and a
14 gas distribution system located on the Reservation, serving residential
15 and commercial needs of the Morongo Band of Mission Indians
16 (Morongo) pursuant to four existing rights-of-way granted by the
17 Department of the Interior (DOI) through the Bureau of Indian Affairs
18 (BIA).²⁶

19 These four rights-of-way are scheduled to expire as follows:²⁷

- 20 • March 29, 2018 Line 2000
- 21 • August 21, 2018 Line 5000
- 22 • March 22, 2020 Line 2001
- 23 • August 21, 2018 Gas Distribution System

24 As of March 8, 2018, SoCalGas and the Morongo Tribe were at an
25 impasse.²⁸

²⁵ $(\$2,308 - \$2,106) / \$2,106 = 0.096$ or 9.6%.

²⁶ Ex. SCG-09-R, p. DRH-16, lines 23-28.

²⁷ Ex. SCG-09-R, p. DRH-17, lines 7-11.

²⁸ SCG response to Data Request ORA-SCG-149-YNL, Question 1.

1 **i. Memorandum Account for Pre-Construction Costs**

2 SoCalGas may find itself in a position where it may need to vacate and
3 abandon the segments of its pipeline that go through the Reservation.

4 SoCalGas is actively seeking Commission approval to establish a
5 memorandum account to record pre-construction costs associated with
6 the possible pipeline relocation around the Morongo Reservation. On
7 March 10, 2017, SoCalGas filed an amended application to establish
8 Morongo Right-of-Way Memorandum Account (MROWMA), which if
9 granted, will facilitate SoCalGas’ efforts to study, design, and make
10 informed decisions regarding potential relocation options, in
11 furtherance of a long-term physical solution to this system reliability
12 need. See Application (A.) 16-12-011. The projected decision on that
13 Application is scheduled for the first quarter of 2018.²⁹

14 As the aforementioned Application is being contested by parties who
15 argue that these type of costs should be sought in GRC, SoCalGas is seeking
16 the same relief in this GRC. SoCalGas is seeking authority to “create a
17 MROWMA for purposes of recording pre-construction costs as described in
18 A.16-12-011. If the Commission grants SoCalGas’ relief in that proceeding,
19 SoCalGas will withdraw its GRC proposal seeking a MROWMA.”³⁰

20 **ii. Balancing Account for Costs Associated with**
21 **Right-of-Way Renewal Activities and Ongoing**
22 **Operation of Lines**

23 SoCalGas is also proposing a separate and distinct regulatory account,
24 the Morongo Rights-of-Way Balancing Account (MROWBA), to record
25 and recover cost associated with renewal of the three expiring rights-
26 of-way for Lines 2000, 2001, and 5000, and any pre-construction costs
27 associated with potential relocations within and/or outside of the
28 Morongo reservation that would be incurred as of the beginning of TY
29 2019.³¹

²⁹ Ex. SCG-09-R, p. DRH-19, lines 14-21.

³⁰ Ex. SCG-09-R, p. DRH-20, lines 1-3.

³¹ Ex. SCG-09-R, p. DRH-20, lines 10-14.

1 SoCalGas explains that the “preconstruction costs to be recorded in
2 the balancing account would be distinct from those that would be recorded in
3 the memorandum account (MROWMA) as these pre-construction costs would
4 be incurred in conjunction with a long-term renewal of the rights-of-way, and
5 not in furtherance of a complete relocation.”³²

6 SoCalGas proposes to include the following category of costs in the
7 MROWBA.³³

- 8 1. Cost for the renewal of the rights-of-way (*i.e.*, renewal payment).
- 9 2. Potential gas infrastructure modification, additions and/or partial
10 relocation costs (*i.e.*, infrastructure and associated pre-construction
11 costs).
- 12 3. Costs incurred during renewal discussions with Morongo (*i.e.*,
13 renewal effort costs); and
- 14 4. Additional costs incurred for interim operational period.

15 **iii. ORA Recommendation**

16 ORA reviewed SoCalGas’ request and recommends that the
17 Commission establish a Morongo Right-of-Way Memorandum Account to
18 track the cost for the renewal of the rights-of-way (renewal payment), subject
19 to reasonableness review.

³² Ex. SCG-09-R, p. DRH-20-21, lines 29-30 and 1-2.

³³ Ex. SCG-09-R, pp. DRH-20-21, lines 19-30 and 1-12.

1 **II. SHARED EXPENSES**

2 The following table summarizes SCG’s shared gas engineering O&M
3 expenses and SCG’s and ORA’s recommended 2019 forecasts.

4 **Table 13-13**
5 **SCG Shared Gas Engineering Expenses**
6 **2012-2016 Recorded and 2019 Forecast**
7 **(in Thousands of 2016 Dollars)**

Description	2012	2013	2014	2015	2016	SCG 2019	ORA 2019
Director, Gas Engr	\$469	\$387	\$318	\$310	\$387	\$808	\$808
Measurement, Reg & Control	\$5,800	\$5,759	\$5,849	\$5,310	\$4,930	\$6,648	\$6,648
Engineering Design	\$2,269	\$2,657	\$3,176	\$2,273	\$2,128	\$4,376	\$4,225
Engr Analysis Cntr	\$1,681	\$1,600	\$1,569	\$1,610	\$1,501	\$2,133	\$2,058
Gas Op Research & Materials	\$34	\$26	\$747	\$593	\$491	\$438	\$438
Total	\$10,253	\$10,429	\$11,659	\$10,096	\$9,437	\$14,403	\$14,177

8 Source: 2012-2016 data from Ex. SCG-09-WP. SCG 2019 forecasts from Ex. SCG-09, pp. DRH-22
9 to -23, Table DRH-9.

10 **A. Director of Gas Engineering**

11 “This cost center includes expenditures incurred by the Director of Gas
12 Engineering and the organization’s administrative and financial support functions.
13 Expenses are typically for gas transmission, underground storage, and gas
14 distribution-related engineering and associated costs of engineering related
15 programs that cross business units or Utilities such as the cathodic protection
16 oversight program or engineering service provider quality management.”³⁴ SCG
17 asserts that because labor and non-labor expense requirements have been
18 consistent over time, a five-year average was chosen. However, SCG hired a new
19 project manager in 2016 to coordinate work associated with Cathodic Protection and
20 other regulatory policies and expects to hire four full-time employees in 2019 for the

³⁴ Ex. SCG-09-R, p. DRH-23, lines 4-9.

1 administration and support of the engineering design conversion from two-
2 dimensional drawings to 3D using data centric design software.³⁵

3 ORA reviewed SCG’s testimony and workpapers and does not oppose SCG’s
4 proposed 2019 O&M expenses for gas engineering.

5 **B. Measurement, Regulation, and Control (MRC)**

6 “The MRC shared cost centers are for engineering policy, design, material
7 selection, testing and field support related to measurement, gas regulation,
8 automated control systems for pipelines and compressor stations and other
9 instrumentation for both SoCalGas and SDG&E. Expenses are typically for gas
10 transmission and distribution-related engineering services and associated costs.”³⁶

11 SoCalGas divided core measurement, regulation and control activities (MRC) into
12 six workgroups: MRC Management and Special Projects; MRC Design; MRC
13 Technologies; MRC Field Support; MRC Instrumentation Repair and Fuel
14 Maintenance and MRC Standards, Materials and BTU Districts.³⁷ SoCalGas used a
15 five-year average for both labor and non-labor expenses for each workgroup.
16 However, additional incremental funding was requested for MRC Design to comply
17 with the roll out of Senate Bill 1383 and MRC Field Support to address upward
18 pressures with increased gas infrastructure monitoring systems.

19 ORA reviewed SCG’s testimony and workpapers and does not oppose SCG’s
20 proposed 2019 O&M expenses for measurement, regulation, and control.

21 **C. Engineering Design**

22 “The Engineering Design shared cost centers are for engineering policy and
23 design for both SoCalGas and SDG&E. Expenses are typically for storage,

³⁵ Ex. SCG-09-WP-R, p. 42 of 153.

³⁶ Ex. SCG-09-R, p. DRH-24, lines 13-17.

³⁷ Ex. SCG-09-R, p. DRH-24, p. 20-25.

1 transmission, and distribution-related services and associated costs.”³⁸ SoCalGas
2 divided its Engineering Design testimony and work papers into five cost centers: (1)
3 Engineering Design Manager, Design Drafting and Process Design; (2) Pipeline
4 Engineering; (3) Mechanical Design; (4) Electrical Engineering Design; and (5) High
5 Pressure & Distribution Engineering Network Design (HPDEND). A five-year
6 average method was chosen as the foundation for labor and non-labor expenses for
7 all cost centers with the exception of HPDEND. “The 5-year linear forecast method
8 was chosen for the labor in this group [HPDEND] because historical data indicate
9 that activities and staffing levels have been consistently rising and are expected to
10 continue.”³⁹ SCG did not make any adjustments to the five-year average to forecast
11 2019 expenses for Pipeline Engineering, Mechanical Design and Electrical
12 Engineering Design.

13 **1. Engineering Design Manager, Design Drafting,**
14 **and Process Design**

15 “Cost drivers for this group include multiple resources to support upward
16 pressures and efforts related to new data-centric 3D design platform of complex gas
17 facilities, Renewable Gas, and enhanced best practices for RAMP [Records
18 Management Information Management Systems....].. Another ongoing cost driver to
19 this category of work is to support the expansion of our Process Hazard Analysis
20 Program.”⁴⁰ In 2019 SoCalGas made a \$100,000 labor and \$650,000 non-labor
21 adjustment for “Process Engineering (cost center 2200-0316) expenditures related
22 to new renewable gas projects. The labor is based on \$100K per FTE. The non-
23 labor is for the contract labor anticipated for work related to the interconnect of a

³⁸ Ex. SCG-09-R, p. DRH-29, lines 18-20.

³⁹ Ex. SCG-09-R, p. DRH-33-34, lines 29-30 and 1.

⁴⁰ Ex. SCG-09, p. DRH-30, lines 26-30.

1 renewable project.”⁴¹ ORA reviewed SCG’s testimony and workpapers and does
2 not object to these adjustments to the five-year foundation average.

3 **2. Electrical Engineering Design High Pressure &**
4 **Distribution Engineering Network Design**

5 Specific activities associated with this group “include (1) the creation
6 and validation of computer hydraulic models of medium and high
7 pressure pipe Distribution networks, (2) managing and enhancing the
8 company’s pressure monitoring programs, (3) developing and
9 providing system design and analysis training to Region Engineering
10 employees, (4) meeting the requirements of SB 1383 and evaluating
11 other renewable gas resources, (5) providing engineering data
12 analytics and performance optimization services on gas assets, and (6)
13 proving project management over a range of other areas, including gas
14 blown to atmosphere, isolation area management, year-end gas
15 inventory calculation and reporting, review and update of company
16 standards, and participation on industry committees.”⁴²

17 SoCalGas proposes to use a five-year linear method for this cost center.
18 ORA examined SCG’s workpapers and found that SCG does not make any
19 adjustments in 2017 and 2018 for this cost center. However a \$640,000 incremental
20 adjustment was made in 2019 to account for:

- 21 1. FTEs for two Engineers; FTEs for two Technical Advisors; and one
22 project manager to develop and implement the EDAPO group.
23 2. Two incremental FTEs to manage capacity studies for Gas
24 Distribution interconnect expenditures related to new renewable
25 natural gas projects.”⁴³

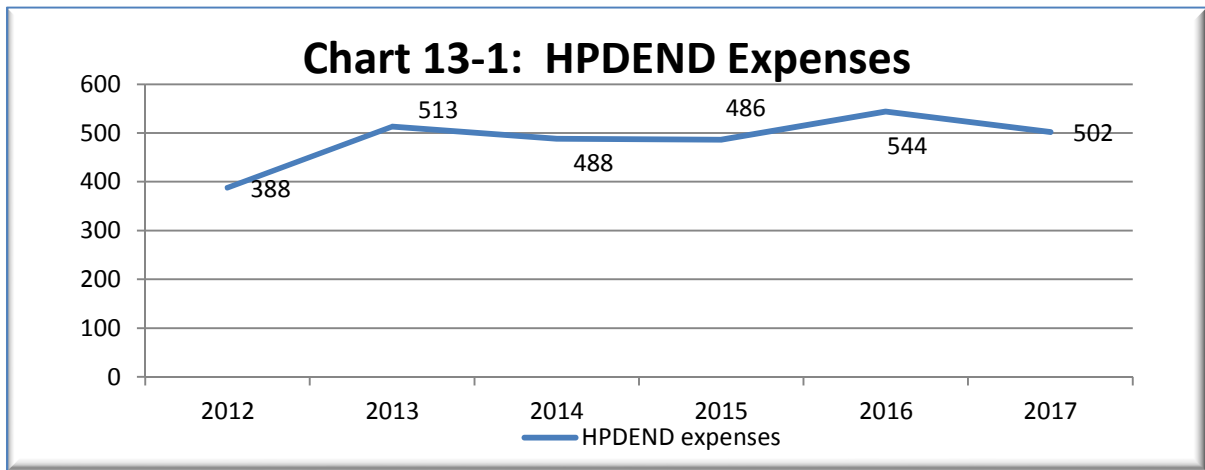
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⁴¹ Ex. SCG-09-WP-R, p. 92 of 153.

⁴² Ex. SCG-09-R, p. DRH-33, lines 19-27.

⁴³ Ex. SCG-09-WP-R, p. 114 of 153.

1 The following chart shows a trend line of HPDEND expenses over the last six
2 years, including adjusted-recorded expenses in 2017.



3

4 ORA notes that the average of 2012-2016 expenses is \$483,800, while the
5 average of 2012-2017 expenses is \$486,833. ORA recommends using actual
6 adjusted-recorded 2017 expenses of \$502,000 as the base forecast for 2019. ORA
7 does not oppose SCG's projected adjustment of \$640,000 in 2019. Therefore, ORA
8 recommends a forecast of \$1.142 million⁴⁴ in 2019, which is \$148,000 less than
9 SCG's forecast of \$1.290 million. ORA used the 2017 actual adjusted-recorded
10 expenses as a base forecast for 2019 because the last four of six years' recorded
11 expenses are close to that number.⁴⁵

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⁴⁴ \$1,142,000 = \$502,000 + \$640,000

⁴⁵ The average of 2013, 2014, 2015 and 2017 recorded-adjusted expenses is \$497,250.

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Table 13-14
SCG HPDEND
2019 O&M Expenses Forecast
(in Thousands of 2016 Dollars)

Description (a)	ORA Recommended (b)	SCG Proposed ⁴⁶ (c)	Amount SCG>ORA (d=c-b)
HPDEND Forecast	\$1,142	\$1,290	\$148

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3. Adjustment Summary for Engineering Design

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Table 13-15
SCG Engineering Design
2019 O&M Expenses Forecast
(in Thousands of 2016 Dollars)

Description (a)	ORA Recommended (b)	SCG Proposed ⁴⁷ (c)	Amount SCG>ORA (d=c-b)
Eng. Design Manager	\$2,079	\$2,079	\$0
Pipeline Engineering	671	671	0
Mechanical Design	179	179	0
HPDEND	1142	1,290	148
Electrical Design	154	154	0
Total Engineering Design	\$4,225	\$4,376	\$148

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D. Engineering Analysis Center

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“The Engineering Analysis Center Chemical section provides environmental, gas operation, and British Thermal Unit (BTU) measurement-related testing for both utilities.”⁴⁸ SoCalGas used a five-year average as a foundation for labor and non-labor expenses. “However, new and enhanced regulations are emerging and thus requiring additional staffing and resources to comply. These incremental costs have

⁴⁶ Ex. SCG-09-WP-R, p. 112 of 153.

⁴⁷ Ex. SCG-09-WP-R, pp. 85-123 of 153.

⁴⁸ Ex. SCG-09-R, p. DRH-35, lines 5-6.

1 been identified and added to the five-year average.”⁴⁹ These incremental costs
 2 include an adjustment for one incremental FTE starting in 2017 and a request for
 3 one management position “to support biogas testing and monitoring and to promote
 4 the use of RNG”⁵⁰ starting in 2018.

5 ORA requested more information about the new management position. In
 6 response to ORA’s request, SoCalGas replied that the company “is not requesting a
 7 new management position.”⁵¹ Therefore, ORA recommends a \$75,000 reduction to
 8 SoCalGas’ 2019 forecast.

9 **Table 13-16**
 10 **SCG Engineering Analysis Center**
 11 **2017-2019 O&M Expenses Forecast**
 12 **(in Thousands of 2016 Dollars)**

Description (a)	ORA Recommended (b)	SCG Proposed ⁵² (c)	Amount SCG>ORA (d=c-b)
Engineering Analysis Center	\$2,058	\$2,133	\$75

13
 14 **E. Gas Operations Research and Materials**

15 In its workpapers, SCG-09-WP-R, SoCalGas divides gas operations research
 16 and materials category into three cost centers: research and materials, pipeline
 17 materials, research planning and development.⁵³ SCG used base year as the
 18 foundation for labor and non-labor expenses for research and materials and pipeline
 19 materials and a five-year average for research planning and development. “In

⁴⁹ Ex. SCG-09-R, p. DRH-35, lines 20-22.

⁵⁰ Ex. SCG-09-WP-R, pp. 127-128 of 153.

⁵¹ SCG response to Data Request ORA-SCG-154-YNL, Question 1.

⁵² Ex. SCG-09, p. DRH-22, Table DRH-9.

⁵³ Ex. SCG-09-WP-R, pp. 133-152 of 153.

1 addition, incremental adjustments to the base year were included to represent the
2 expense requirements anticipated in test year 2019.”⁵⁴

3 ORA reviewed SCG’s testimony and workpapers and does not oppose SCG’s
4 proposed 2019 O&M expenses for gas operations research and materials.

5 **III. SUMMARY OF GAS ENGINEERING CAPITAL EXPENDITURES:**
6 **2012 – 2016**

7 The following Table 13-17 summarizes SCG's Gas Engineering capital
8 expenditures from 2012-2016.

9 **Table 13-17**
10 **SCG Gas Engineering**
11 **Recorded 2012-2016 Capital Expenditures**
12 **(in Thousands of Dollars)**

Description	2012	2013	2014	2015	2016
Land & Right-of-Way	\$133	\$594	\$680	\$2,064	\$5,468
Capital Tools & Lab Equipment	\$794	\$1,602	\$1,462	\$4,437	\$2,927
Trans & Storage Supv/Engr Pool	\$1,547	\$1,719	\$2,162	\$3,831	\$4,189
Total	\$2,474	\$3,915	\$4,304	\$10,332	\$12,583

13 Source: 2012-2016 data from Ex. SCG-09-CWP.

14 **IV. GAS ENGINEERING CAPITAL EXPENDITURES: 2017 – 2019**

15 ORA reviewed SCG’s testimony and workpapers and recommends the
16 following:

- 17 • ORA uses SCG’s 2017 adjusted-recorded capital expenditures of
18 \$3.892 million for land and right-of-way. ORA reviewed SCG’s
19 testimony and workpapers, including 2017 recorded costs and
20 recommends an average of the last two years as its forecast for
21 2018 and 2019. An average of 2016 and 2017 capital expenditures
22 is \$4.680 million.
- 23 • ORA uses SCG’s 2017 adjusted-recorded capital expenditures of
24 \$2.515 million for capital tools and lab equipment. ORA does take

⁵⁴ Ex. SCG-09-R, p. DRH-37, lines 3-5.

1 issue with SCG’s proposed 2018 and 2019 capital expenditure
2 forecast for capital tools and lab equipment.

- 3 • ORA uses SCG’s 2017 adjusted-recorded capital expenditures of
4 \$4.504 million for supervision and engineering overheads. ORA
5 recommends a year-on-year growth of 8.43% between 2017-2019
6 for supervision and engineering overheads, which is an average of
7 the two-year growth in 2016 and 2017. Accordingly, ORA
8 recommends a forecast of \$4.884 million in 2018 and \$5.295 million
9 in 2019.

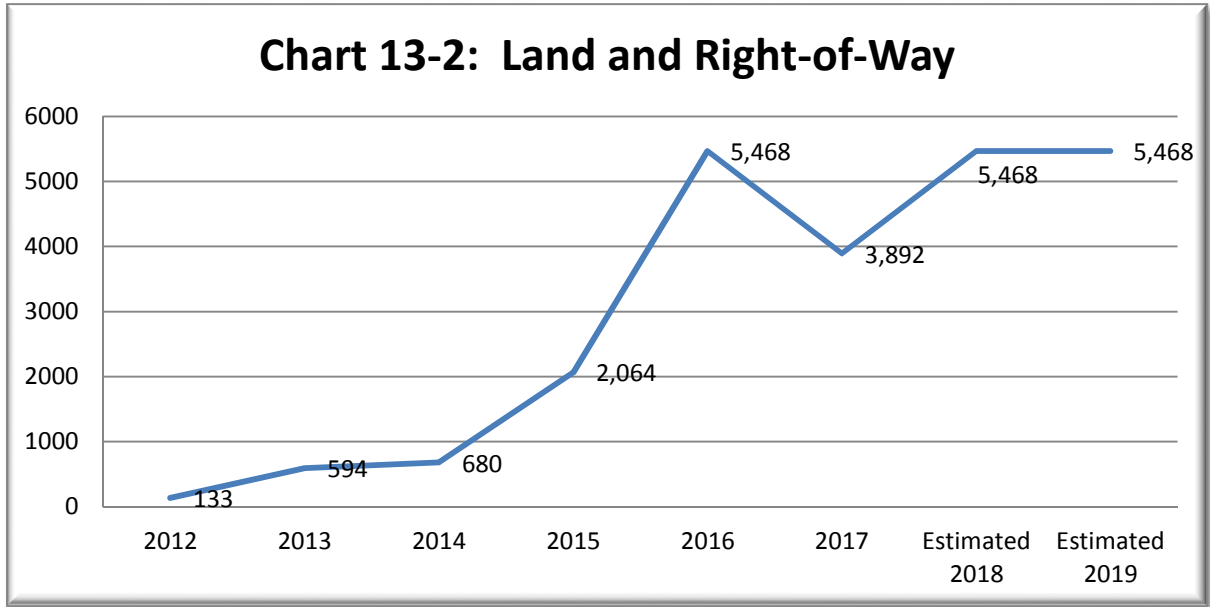
10 **A. Land and Right-of-Way**

11 Land and Right-of-Way capital expenditure forecast will provide “capital
12 funding for purchases of land or land rights for new high pressure pipelines and for
13 existing rights-of-way that have expired per contractual obligation and need to be re-
14 negotiated. [...] Federal law requires public utility lines occupying private lands to be
15 protected by acquisition of land rights thus protecting the utility and their downstream
16 consumers.”⁵⁵ SoCalGas chose the base year forecast methodology “for this
17 category because it is anticipated to continue this pattern for test year 2019.”⁵⁶

18 The following chart shows SoCalGas’ actual recorded costs (including 2017)
19 and estimated forecasts for 2018 and 2019.

⁵⁵ Ex. SCG-09, p. DRH-38, lines 5-10.

⁵⁶ Ex. SCG-09-CWP, p. 5 of 31.



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2 In 2017, SCG's incurred \$3.892 million, which is \$1.576 million less than
 3 2016 recorded capital expense used as a base year to forecast 2017-2019
 4 expenses. ORA does not oppose SCG's 2017 adjusted-recorded capital
 5 expenditures for land and right-of-way.

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Table 13-18
SCG Land & Right-of-Way
2017-2019 Capital Expenditure Forecast
(in Thousands of 2016 Dollars)

Description	ORA Recommended			SoCalGas Proposed ⁵⁷		
	2017	2018	2019	2017	2018	2019
Land & Right-of-Way	\$3,892	\$4,680	\$4,680	\$5,468	\$5,468	\$5,468

10 ORA reviewed SCG's testimony and workpapers, including 2017 recorded
 11 costs and recommends an average of the last two years to forecast expenditures for
 12 2018 and 2019. An average of 2016 and 2017 capital expenditures is \$4.680
 13 million. An average of last two years takes into account the most recent level of
 14 expenditures, which are greater than expenditure levels from 2012-2015, and takes
 15 into account an overall positive linear trend of increased expenses, except for 2017.

⁵⁷ Ex. SCG-09, p. DRH-37, Table DRH-10.

1 projects and the increasing complexity and volume of these projects requiring more
 2 oversight and preliminary engineering.⁶⁰

3 **Table 13-20**
 4 **Year-on-Year Growth**
 5 **2012-2017 Recorded Costs with SCG and ORA Proposed 2019 Forecasts**

Description	2012	2013	2014	2015	2016	2017	2018	2019
Trans & Storage Supv/Engr Pool	\$1,547	\$1,719	\$2,162	\$3,831	\$4,189	\$4,909	\$5,648	\$6,388
(2) Proposed YOY growth		11.11%	25.77%	77.20%	9.34%	17.19%	15.05%	13.10%
With actual 2017	\$1,547	\$1,719	\$2,162	\$3,831	\$4,189	\$4,504	\$5,648	\$6,388
(4) YOY with actual 2017		11.11%	25.77%	77.20%	9.34%	7.52%	25.40%	13.10%
ORA Proposed						\$4,504	\$4,884	\$5,295
(6) ORA Proposed YOY growth							8.43%	8.43%

6 The table above shows a SCG's proposed year-on-year (YOY) growth based
 7 on historical trends from 2012-2016 and forecasted expenses for 2017-2019 using
 8 SCG's five-year linear method in Row 2. Row 4 shows the change in SCG's
 9 proposed YOY growth when the actual-recorded 2017 expenses are substituted for
 10 the SCG's forecasted 2017 expenses without any changes made for 2018-2019
 11 forecasts.

12 ORA does not oppose SCG's 2017 adjusted-recorded capital expenditure of
 13 \$4.504 million for supervision and engineering overheads. However, ORA
 14 recommends a year-on-year growth of 8.43% between 2017-2019, which is an
 15 average of two-year growth in 2016 and 2017. This proposal will account for steady
 16 rise in costs experienced by SoCalGas for this budget code at a decreased rates
 17 experienced in the last two years, as can be seen in Table 13-20 above in 2016 and
 18 2017 in Row 4.

⁶⁰ Ex. SCG-09, DRH-40, lines 13-18.

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Table 13-21
SCG Supervision & Engineering Overheads
2017-2019 Capital Expenditure Forecast
(in Thousands of 2016 Dollars)

Description	ORA Recommended			SoCalGas Proposed ⁶¹		
	2017	2018	2019	2017	2018	2019
Supervision & Engr Overheads (Pool)	\$4,504	\$4,884	\$5,295	\$4,909	\$5,648	\$6,388

5 Accordingly, ORA recommends a capital expenditure forecast of \$4.884
6 million in 2018 and \$5.295 million in 2019 for supervision and engineering
7 overheads. These forecasts are based on an annual 8.43% increase from the actual
8 adjusted recorded capital expenditure of \$4.504 million incurred in 2017.

⁶¹ Ex. SCG-09, p. DRH-37, Table DRH-10.

1 **PART III: SDG&E GAS ENGINEERING**

2 **I. SUMMARY OF GAS ENGINEERING CAPITAL EXPENDITURES:**
3 **2012 – 2016**

4 The following table below summarizes SDG&E’s gas engineering recorded
5 expenditures from 2012-2017.

6 **Table 13-22**
7 **SDG&E Gas Engineering**
8 **Recorded 2012-2016 Capital Expenditures**
9 **(in Thousands of Dollars)**

Description	2012	2013	2014	2015	2016
Land Rights	\$1	\$25	\$63	\$429	\$69
Auxiliary Equipment	\$56	\$0	\$0	\$48	\$18
Capital Tools	\$27	\$32	\$77	\$18	\$118
Supervision & Engr Overheads	\$102	\$106	\$149	\$7	\$0
Total	\$186	\$163	\$289	\$502	\$205

10 Source: 2012-2016 data from Ex. SDG&E-09-CWP.

11 **II. GAS ENGINEERING CAPITAL EXPENDITURES: 2017 – 2019**

12 ORA reviewed SDG&E’s testimony and workpapers and recommends the
13 following:

- 14 • ORA recommends that the Commission adopt SDG&E’s 2017
15 adjusted-recorded capital expenditures for land rights, auxiliary
16 equipment, and capital tools.
- 17 • ORA recommends zero funding in 2017 for supervision and
18 engineering overheads.
- 19 • ORA does not oppose SDG&E’s proposed capital expenditures in
20 2018 and 2019.

21 **A. Land Rights**

22 “This Budget Code provides capital funding for easements, rights-
23 of-way and other land rights costs, including costs incurred to secure
24 those rights. Negotiating and paying for land rights within certain
25 areas, such as restricted areas, Tribal lands, and other limited access
26 locations, are activities (and associated costs) that are incurred in

1 furtherance of the Utility’s obligation to serve its customers. If these
 2 land rights are not acquired, the Utility would have to explore other
 3 alternatives (e.g., build arounds), as the land owner may demand
 4 eviction and abandonment of pipeline.”⁶²

5 **Table 13-23**
 6 **SDG&E Land Rights**
 7 **2017-2019 Capital Expenditure Forecast**
 8 **(in Thousands of 2016 Dollars)**

Description	ORA Recommended			SDG&E Proposed ⁶³		
	2017	2018	2019	2017	2018	2019
Land Rights	\$488	\$113	\$113	\$113	\$113	\$113

9 SDG&E used a five-year average of recorded costs as its forecast method.
 10 ORA uses SDG&E’s 2017 adjusted-recorded capital expenditures of \$488,000 for
 11 land rights as its recommended forecast. ORA reviewed SDG&E’s testimony and
 12 workpapers and does not oppose SDG&E’s proposed 2018 and 2019 capital
 13 expenditures for land rights.

14 **B. Auxiliary Equipment**

15 SDG&E has two budget codes which provide for purchase of auxiliary
 16 equipment to support compressor stations. The utility used a base-year of recorded
 17 costs as its forecast method for Budget Code 419 for labor and non-labor because
 18 this budget code did not have any costs before 2015. “For Budget Code 439, the
 19 base-year methodology was used for labor and the 5-year average was used for
 20 nonlabor. Budget code 439 has not had any labor expenses since 2013.”⁶⁴

⁶² Ex. SDG&E-09-R, p. DRH-6, lines 12-18.

⁶³ Ex. SDG&E-09-R, p. DRH-6, Table DRH-2.

⁶⁴ Ex. SDG&E-09-R, p. DRH-7, lines 20-21.

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Table 13-24
SDG&E Auxiliary Equipment
2017-2019 Capital Expenditure Forecast
(in Thousands of 2016 Dollars)

Description	ORA Recommended			SDG&E Proposed ⁶⁵		
	2017	2018	2019	2017	2018	2019
Auxiliary Equipment	\$295	\$28	\$28	\$28	\$28	\$28

5 ORA uses SDG&E’s 2017 adjusted-recorded capital expenditures for auxiliary
6 equipment of \$295,000 as its recommended forecast for 2017. ORA reviewed
7 SDG&E’s testimony and workpapers and does not oppose SDG&E’s proposed 2018
8 and 2019 capital expenditures for auxiliary equipment.

9 **C. Capital Tools**

10 This Budget Code is used by utility to acquire and replace high-value tools
11 routinely used by its operations personnel. “Required capital tools can include
12 Volt/Amp Meters, Global Positioning System receivers, leak detection equipment,
13 gauges, wrenches, tapping and stopping equipment. Purchases are generally to
14 replace old, worn or damaged tools used in the field.”⁶⁶ SDG&E used a five-year
15 average of recorded costs as its forecast method.

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Table 13-25
SDG&E Capital Tools
2017-2019 Capital Expenditure Forecast
(in Thousands of 2016 Dollars)

Description	ORA Recommended			SDG&E Proposed ⁶⁷		
	2017	2018	2019	2017	2018	2019
Capital Tools	\$106	\$54	\$54	\$54	\$54	\$54

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21

⁶⁵ Ex. SDG&E-09-R, p. DRH-6, Table DRH-2.

⁶⁶ Ex. SDG&E-09-R, p. DRH-8, lines 6-8.

⁶⁷ Ex. SDG&E-09-R, p. DRH-6, Table DRH-2.

1 ORA uses SDG&E's 2017 adjusted-recorded capital expenditures of
 2 \$106,000 for capital tools as its recommended forecast for 2017. ORA reviewed
 3 SDG&E's testimony and workpapers and does not oppose SDG&E's proposed 2018
 4 and 2019 capital expenditures for capital tools.

5 **D. Supervision & Engineering Overheads**

6 "This Budget Code provides a pool for Supervision and Engineering charges
 7 that will be reassigned to the various budget categories on a direct basis."⁶⁸ On
 8 March 12, 2018, ORA received Sempra's 2017 adjusted-recorded capital data. ORA
 9 was not able to find a reference to workpaper 009030 – Local GT Supervision and
 10 Engineering Pool in the received file. Upon further inquiry, ORA was informed by
 11 SDG&E in an email dated March 27, 2018, that Supervision and Engineering
 12 Overheads (Budget Code 903) costs are collectively presented in Ex. SDG&E-04-R,
 13 Local Engineering Pool, as budget code 902. ORA's 2017 forecast of Local
 14 Engineering appears in Ex. ORA-09. Therefore, ORA recommends \$0 for
 15 supervision and engineering overheads in 2017 in this exhibit, since these incurred
 16 costs are reflected in budget code 903.

17 **Table 13-26**
 18 **SDG&E Supervision & Engineering Overheads**
 19 **2017-2019 Capital Expenditure Forecast**
 20 **(in Thousands of 2016 Dollars)**

Description	ORA Recommended			SDG&E Proposed ⁶⁹		
	2017	2018	2019	2017	2018	2019
Supv/Engr Overheads	\$0	\$73	\$73	\$73	\$73	\$73

21 SDG&E used a five-year average as its forecast method. ORA reviewed
 22 SDG&E's testimony and workpapers and does not oppose SDG&E's proposed 2018
 23 and 2019 supervision and engineering overheads.
 24

⁶⁸ Ex. SDGE&E-09-R, p. DRH-8, lines 20-21.

⁶⁹ Ex. SDG&E-09-R, p. DRH-6, Table DRH-2.

1

WITNESS QUALIFICATIONS

2 My name is Yakov Lasko. My business address is 505 Van Ness Avenue,
3 San Francisco, California. I am employed by the Office of Ratepayer Advocates
4 (ORA) as a Public Utilities Regulatory Analyst IV in the Energy Cost of Service and
5 Natural Gas Branch.

6 I received a Bachelor of Arts Degree in Political Economy of Industrial
7 Societies from the University of California at Berkeley, and a Master's Degree in
8 Corporate Finance from SDA Bocconi in Milan, Italy.

9 Since joining the Commission in 2012, I worked in ORA's Electric Planning &
10 Policy Branch from 2012-2016 and testified before the Commission on PG&E ERRR
11 Compliance and the SONGS OII proceedings. I was ORA's Project Coordinator for
12 the PG&E 2014 and 2015 ERRR compliance proceedings, A.15-02-023 and A.16-
13 02-019, respectively. I prepared and submitted testimony in: the SCE, SDG&E and
14 PG&E nuclear decommissioning cost triennial proceedings, A.16-03-004 and A.16-
15 03-006, respectively; the SCE 2018 GRC proceeding, A.16-09-001; and the SDG&E
16 Customer Information System Replacement Program proceeding, A.17-04-027.

17 This completes my prepared testimony.