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ALJ	:	<u>R. Lirag</u>
Witness	:	<u>M. Weaver</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**

SDG&E – Gas Transmission Capital  
SCG – Advanced Metering Infrastructure

San Francisco, California  
April 13, 2018

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1 **SDG&E – GAS TRANSMISSION AND SoCALGAS ADVANCED**  
2 **METERING INFRASTRUCTURE**

3 **I. INTRODUCTION**

4 This exhibit presents the analyses and recommendations of the Office of  
5 Ratepayer Advocates (ORA) regarding the Gas Transmission proposals of San  
6 Diego Gas & Electric Company (SDG&E) and the Advanced Metering Infrastructure  
7 (AMI) proposals of Southern California Gas Company (SCG or SoCalGas) in their  
8 Test Year (TY) 2019 General Rate Cases (GRCs). Specifically, ORA addresses  
9 SDG&E’s forecast of capital expenditures for 2017 through 2019, and SoCalGas’  
10 forecasts of operation and maintenance (O&M) expenses for 2019 and capital  
11 expenditures for 2017 through 2019.

12 Gas Transmission capital expenditures include plant investments to replace,  
13 repair and protect SDG&E’s gas transmission system and to construct new gas  
14 transmission facilities.

15 AMI-related costs are for monitoring, operating and maintaining SoCalGas’  
16 AMI technology.

17 **II. SUMMARY OF RECOMMENDATIONS**

18 **A. SDG&E Gas Transmission**

19 The following summarizes ORA’s recommendations regarding SDG&E’s Gas  
20 Transmission capital expenditures:

- 21 • For New Construction Pipeline, ORA recommends \$1.667 million,  
22 \$3.901 million and \$0.094 million for 2017, 2018 and 2019,  
23 respectively, compared to SDG&E’s request of \$3.901 million,  
24 \$3.901 million and \$3.901 million for 2017, 2018 and 2019.
- 25 • For Pipeline Replacement, ORA recommends \$0.391 million, \$0.588  
26 million and \$0.588 million for 2017, 2018 and 2019, respectively,  
27 compared to SDG&E’s request of \$1.505 million, \$1.505 million and  
28 \$1.505 million for 2017, 2018 and 2019.
- 29 • For Compressor Station, ORA recommends \$3.432 million, \$3.605  
30 million and \$3.455 million for 2017, 2018 and 2019, respectively,

1 compared to SDG&E's request of \$4.415 million, \$4.115 million and  
 2 \$3.965 million for 2017, 2018 and 2019.

- 3 • ORA does not oppose SDG&E's capital expenditure requests for  
 4 Pipeline Relocation, Cathodic Protection, and Measurement &  
 5 Regulation Stations, for 2018 and 2019 as shown in Table 10-1,  
 6 below.

7 Table 10-1 compares ORA's and SDG&E's 2017-2019 Gas Transmission  
 8 capital expenditure forecasts:

9 **Table 10-1**  
 10 **SDG&E Gas Transmission Capital Expenditures for 2017-2019**  
 11 **(in Thousands of 2016 Dollars)**

Description	ORA Recommended			SDG&E Proposed <sup>1</sup>		
	2017	2018	2019	2017	2018	2019
New Constr Pipeline	\$1,667	\$3,901	\$94	\$3,901	\$3,901	\$3,901
Pipeline Replacement	\$391	\$588	\$588	\$1,505	\$1,505	\$1,505
Pipeline Relocation	\$0	\$2	\$2	\$2	\$2	\$2
Compressor Station	\$3,432	\$3,605	\$3,455	\$4,415	\$4,115	\$3,965
Cathodic Protection	\$208	\$184	\$184	\$184	\$184	\$184
Measurement & Regulation Stations	\$504	\$485	\$485	\$485	\$485	\$485
Total	\$6,202	\$8,765	\$4,808	\$10,492	\$10,192	\$10,042

## 12 **B. SoCalGas Advanced Metering Infrastructure**

### 13 **1. Non-Shared Expenses**

14 The following summarizes ORA's recommendations regarding SoCalGas'  
 15 Advanced Metering Infrastructure (AMI) expenses:

- 16 • ORA does not oppose SoCalGas' expense requests for Network  
 17 Management, Business Systems & Analytics, Network  
 18 Maintenance & Construction and System Operations, as shown in  
 19 Table 10-2, below.
- 20 ✓ Subsumed within the Network Maintenance & Construction  
 21 and Business Systems & Analytics categories, SoCalGas  
 22 requests \$0.183 million for RAMP employee contractor  
 23 customer and public safety related to Advanced Meter (AM)  
 24 Consumption Analytics and \$0.273 million for RAMP

<sup>1</sup> Ex. SDG&E-07-CWP-R, p. 1.

1 employee contractor customer and public safety related to  
2 the inspection of Data Collector Unit (DCU) poles.

3 Table 10-2 compares ORA's and SoCalGas' 2019 AMI expense forecasts by  
4 Advanced Meter Operation (AMO) work group:

5 **Table 10-2**  
6 **SoCalGas Advanced Metering Infrastructure O&M Expenses for 2019**  
7 **(in Thousands of 2016 Dollars)**

Description (a)	ORA Recommended (b)	SCG Proposed <sup>2</sup> (c)
Network Management	\$4,055	\$4,055
Network Maintenance & Constr <sup>3</sup>	\$2,443	\$2,443
Business Systems & Analytics <sup>4</sup>	\$1,974	\$1,974
System Operations	\$2,005	\$2,005
Total	\$10,477	\$10,477

8 **2. Capital Expenditures**

9 The following summarizes ORA's recommendations regarding SoCalGas'  
10 2017-2019 AMI capital expenditure forecasts:

- 11 • SoCalGas' AMI Balancing Account-Capital (information only) shows  
12 \$24.718 million for 2017, \$7.524 million for 2018 and \$0.000 million  
13 for 2019. ORA does not oppose SoCalGas' request.
- 14 • ORA does not oppose SoCalGas' justification for its AMI-related  
15 Information Technology (IT) capital projects. SDG&E requests \$0.0  
16 million for 2017, \$1.768 million for 2018 and \$4.815 million for 2019  
17 for the AMI-related IT capital projects; ORA's IT capital expenditure  
18 forecast appears in Exhibit (Ex.) ORA-20.

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<sup>2</sup> Ex. SCG-17, pp. RFG-15 thru RFG-20 (summation of Labor, Non-Labor, and NSE figures for each work group), and Ex. SCG-17-WP, p. 3 of 49 (total Labor, Non-Labor and NSE breakdown).

<sup>3</sup> Includes RAMP-Employee Contractor Customer and Public Safety related to DCU poles.

<sup>4</sup> Includes RAMP-Employee Contractor Customer and Public Safety related to AM Consumption Analytics.

1 **PART I: SDG&E GAS TRANSMISSION CAPITAL EXPENDITURES**

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

4 Gas Transmission Capital includes: New Construction Pipeline, Pipeline  
5 Replacement, Pipeline Relocation, Compressor Stations, Cathodic Protection and  
6 Measurement & Regulator Stations. Table 10-3 below shows SDG&E’s Gas  
7 Transmission recorded 2012-2016 capital expenditures.

8 **Table 10-3**  
9 **SDG&E Gas Transmission**  
10 **Recorded 2012-2016 Capital Expenditures**  
11 **(in Thousands of 2016 Dollars)**

Description	2012	2013	2014	2015	2016
New Construction Pipeline	\$148	\$69	\$65	\$5,998	\$3,900
Pipeline Replacement	\$93	\$1,193	\$927	\$3,631	\$1,688
Pipeline Relocation	\$8	\$0	\$0	\$0	\$0
Compressor Stations	\$1,871	\$2,207	\$2,981	\$2,875	\$9,897
Cathodic Protection	\$30	\$82	\$110	\$210	\$489
Measurement & Reg Stations	\$507	\$242	\$743	\$246	\$682
Total	\$2,657	\$3,793	\$4,826	\$12,960	\$16,656

12 Source: 2012-2016 data from Ex. SDG&E-07-WP, p. 4-77.

13 **II. GAS TRANSMISSION CAPITAL EXPENDITURES: 2017 – 2019**

14 **A. New Construction Pipeline**

15 For New Construction Pipeline, SDG&E requests \$3.901 million, \$3.901  
16 million and \$3.901 million for 2017, 2018 and 2019, respectively.<sup>5</sup> SDG&E  
17 determined its new construction pipeline forecast by using the base-year method.  
18 SDG&E’s forecast captures costs associated with multiple smaller new construction  
19 pipeline capital projects that are expected to be completed during the forecast  
20 period.<sup>6</sup> ORA recommends \$1.667 million, \$3.901 million and \$0.094 million for

<sup>5</sup> Ex. SDG&E-07, p. JGT-9, Table JGT-6.

<sup>6</sup> Ex. SDG&E-07, p. JGT-9.

1 SDG&E’s 2017, 2018 and 2019 new construction pipeline. For 2019, ORA’s  
2 recommendation is \$3.807 million lower than SDG&E’s proposed \$3.901 million.

3 Table 10-4 below shows SDG&E’s and ORA’s forecast for 2017-2019 for  
4 New Construction Pipeline.<sup>7</sup>

5 **Table 10-4**  
6 **New Construction Pipeline**  
7 **2017-2019 Capital Expenditure Forecast**  
8 **(in Thousands of 2016 Dollars)**

Description	ORA Recommended			SDG&E Proposed <sup>8</sup>		
	2017	2018	2019	2017	2018	2019
New Constr Pipeline	\$1,667	\$3,901	\$94	\$3,901	\$3,901	\$3,901

9 **1. Overview of SDG&E’s Request**

10 SDG&E requests \$0.039 million, \$0.039 million and \$0.039 million for its labor  
11 cost related to new construction pipeline for 2017, 2018 and 2019. SDG&E used the  
12 base-year method to forecast labor 2017, 2018 and 2019.

13 SDG&E requests that the non-labor cost related to new construction pipeline  
14 remain consistent with the base year. SDG&E recorded \$3.862 million in 2016 and  
15 is requesting \$3.862 million, \$3.862 million and \$3.862 million for non-labor in 2017,  
16 2018 and 2019.

17 **2. ORA’s Analysis**

18 ORA recommends \$0.045 million, \$0.039 million and \$0.020 million for its  
19 new construction pipeline labor for 2017, 2018 and 2019. ORA used SDG&E’s  
20 recorded data to forecast 2017 labor and non-labor costs. ORA used a 3- year  
21 average of 2012-2014 to forecast non-labor costs for 2019. ORA recommends  
22 \$1.621 million, \$3.862 million and \$0.074 million for non-labor new construction  
23 pipeline for 2017, 2018 and 2019.

24 SDG&E determined its new construction pipeline forecast by using the base-  
25 year method for 2017, 2018 and 2019. “We could not reasonably employ a five-year

<sup>7</sup> Ex. SDG&E-07-CWP, p. 4 of 77.

<sup>8</sup> Ex. SDG&E-07, p. JGT-10, Table JGT-7.



1 average methodology for these new pipeline installations because the recorded  
2 history varied considerably.”<sup>9</sup> ORA does not oppose SDG&E’s base-year method to  
3 forecast 2018. However, ORA recommends using a three-year average method to  
4 forecast the TY 2019 expenditures. ORA’s recommendation for non-labor new  
5 construction pipeline is more reasonable in contrast to SDG&E’s estimate which is  
6 5901.5% higher than the 2014 recorded year. SDG&E’s recorded non-labor varied  
7 considerably; from a low of \$0.059 million in 2014 to a high of \$5.982 million in 2015  
8 and \$3.862 million in 2016.

9 ORA ascertained that SDG&E’s 2015 and 2016 recorded expenditures for  
10 non-labor were entirely due to the Pio Pico Energy Center. SDG&E began  
11 construction of the Pio Pico Energy Center in 2015, which was completed in 2016.  
12 The Pio Pico Energy Center represents the entire non-labor cost in 2015 and  
13 2016.<sup>10</sup> SDG&E started construction on the Carlsbad Energy Center in November  
14 of 2017 which is expected to be completed in March of 2018.<sup>11</sup> Due to the  
15 construction of the Carlsbad Energy Center, ORA recommends adopting SDG&E’s  
16 recorded 2017 data as the 2017 forecast. ORA does not oppose SDG&E’s forecast  
17 costs for 2018. ORA used a three-year average of recorded 2012-2014 capital  
18 expenditures to forecast 2019 costs, as they represent normal costs associated with  
19 New Construction Pipeline without the Energy Center projects.

## 20 **B. Pipeline Replacement**

21 For Pipeline Replacements, SDG&E requests \$1.505 million, \$1.505 million  
22 and \$1.505 million for 2017, 2018 and 2019, respectively. SDG&E determined its  
23 pipeline replacement forecast by using the five-year averaging method. ORA  
24 recommends pipeline replacements of \$0.391 million, \$0.588 million, \$0.588 million  
25 for 2017, 2018 and 2019, respectively.

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<sup>9</sup> Ex. SDG&E-07, p. JGT-10.

<sup>10</sup> SDG&E’s response to data request ORA-SDGE-001-MW5, Q.1.

<sup>11</sup> SDG&E’s response to data request ORA-SDGE-020-MW5, Q.2.

1 Table 10-5 below shows SDG&E's and ORA's forecast for Pipeline  
2 Replacement costs for 2017-2019.

3 **Table 10-5**  
4 **Pipeline Replacement**  
5 **2017-2019 Capital Expenditure Forecast**  
6 **(in Thousands of 2016 Dollars)**

Description	ORA Recommended			SDG&E Proposed <sup>12</sup>		
	2017	2018	2019	2017	2018	2019
Pipeline Replacement	\$391	\$588	\$588	\$1,505	\$1,505	\$1,505

7 **1. Overview of SDG&E's Request**

8 SDG&E forecasts several small projects and includes costs to plan, design  
9 and engineer, permit, procure material, construct, commission and mitigate  
10 environmental impacts that may arise. SDG&E proposes \$0.069 million, \$0.069  
11 million and \$0.069 million for its pipeline replacement labor costs for 2017, 2018 and  
12 2019.

13 SDG&E proposes \$1.436 million, \$1.436 million and \$1.436 million for 2017,  
14 2018 and 2019 for its non-labor pipeline replacement.

15 **2. ORA's Analysis**

16 ORA does not oppose SDG&E's forecast of \$0.035 million, \$0.069 million and  
17 \$0.069 million for pipeline replacements labor for 2017, 2018 and 2019. With regard  
18 to non-labor for pipeline replacements, ORA forecasts expenditures of \$0.356 million  
19 for 2017 and \$0.519 million per year for 2018, and 2019.

20 ORA used SDG&E's recorded data to forecast 2017. ORA recommends a  
21 five-year (2012-2016) averaging method for 2018 and 2019, after removing costs  
22 associated with the Bear Valley Relocation project.<sup>13</sup> The Bear Valley Relocation  
23 project was requested by San Diego County and was completed in 2016. For  
24 forecasting purposes, ORA removed \$3.266 million in 2015 and \$1.327 million in  
25 2016 in costs associated with the Bear Valley Relocation project due to the

<sup>12</sup> Ex. SDG&E-07, p. JGT-11, Table JGT-8.

<sup>13</sup> SDG&E's response to data request ORA-SDG&E-001-MW5, Q.4.

1 significant cost of that large project in 2015 and 2016, and due to SDG&E only  
 2 requesting small projects during this GRC cycle.

3 **C. Pipeline Relocation – Franchise**

4 For Pipeline Relocations, SDG&E requests \$0.002 million, \$0.002 million and  
 5 \$0.002 million for 2017, 2018 and 2019, respectively. Pipelines located within  
 6 SDG&E’s existing franchise area are occasionally required to be relocated to  
 7 accommodate planned private property development, municipal public works and  
 8 street improvement projects, right-of-way agreements or other contract or franchise  
 9 agreements.<sup>14</sup> SDG&E determined its pipeline relocations forecast by using a five-  
 10 year averaging method. ORA recommends using SDG&E’s recorded costs to  
 11 forecast 2017. ORA does not oppose SDG&E’s forecasts for 2018 and 2019.

12 Table 10-6 below shows SDG&E’s and ORA’s forecast for 2017-2019  
 13 Pipeline Relocation costs.

14 **Table 10-6**  
 15 **Pipeline Relocation – Franchise**  
 16 **2017-2019 Capital Expenditure Forecast**  
 17 **(in Thousands of 2016 Dollars)**

Description	ORA Recommended			SDG&E Proposed <sup>15</sup>		
	2017	2018	2019	2017	2018	2019
Pipeline Relocation – Franchise	\$0	\$2	\$2	\$2	\$2	\$2

18 **D. Compressor Stations**

19 For Compressor Stations, SDG&E requests \$4.415 million, \$4.115 million and  
 20 \$3.965 million for 2017, 2018 and 2019, respectively. SDG&E determined its  
 21 compressor station forecast expenditures by using a five-year averaging method.  
 22 ORA recommends a forecast of \$3.433 million, \$3.605 million and \$3.455 million for  
 23 SDG&E’s Compressor Stations for 2017, 2018 and 2019.

<sup>14</sup> Ex. SDG&E-07, p. JGT 11-12, lines 24-2.

<sup>15</sup> Ex. SDG&E-07, p. JGT-12, Table JGT-9.

1 Table 10-7 below shows SDG&E’s request and ORA’s recommendation for  
2 Compressor Stations for 2017-2019.

3 **Table 10-7**  
4 **Compressor Stations**  
5 **2017-2019 Capital Expenditure Forecast**  
6 **(in Thousands of 2016 Dollars)**

Description	ORA Recommended			SDG&E Proposed <sup>16</sup>		
	2017	2018	2019	2017	2018	2019
Compressor Station	\$3,433	\$3,605	\$3,455	\$4,415	\$4,115	\$3,965

7 **1. Overview of SDG&E’s Request**

8 SDG&E anticipates compressor station labor costs of \$0.195 million, \$0.182  
9 million and \$0.176 million for 2017, 2018 and 2019. SDG&E requests that its non-  
10 labor compressor station costs \$4.220 million, \$3.933 million and \$3.789 million for  
11 2017, 2018 and 2019. SDG&E used a five-year average to forecast costs which  
12 include a capital work increase of \$0.450 million in 2017 and \$0.150 million in 2018.

13 **2. ORA’s Analysis**

14 ORA does not oppose SDG&E’s request of \$0.182 million and \$0.176 million  
15 for compressor station labor for 2018 and 2019. ORA recommends a forecast of  
16 \$0.349 million for compressor station labor for 2017 based off of SDG&E’s 2017  
17 recorded costs. ORA recommends a forecast of \$3.084 million, \$3.423 million and  
18 \$3.279 million compared to SDG&E’s forecast of \$4.220 million, \$3.933 million and  
19 \$3.789 million for compressor station non-labor for 2017, 2018 and 2019.

20 SDG&E used a five-year average for non-labor costs. SDG&E recorded  
21 \$1.878 million in 2012 and a high of \$9.897 million in 2016. ORA recommends  
22 using SDG&E’s recorded costs to forecast 2017. ORA recommends for 2018 and  
23 2019 a five-year average of 2012-2016 recorded costs after removing one-time  
24 costs associated with security enhancements and the security guard shelter  
25 building.<sup>17</sup>

<sup>16</sup> Ex. SDG&E-07, p. JGT-13, Table JGT-10.

<sup>17</sup> SDG&E’s response to data request ORA-SDGE-020-MW5, Q.5.

1 **a. Moreno Compressor Replacement Project**

2 The Moreno Compressor Replacement project is ongoing and capital  
3 expenditures for this project will be presented in a future rate case.<sup>18</sup> SDG&E  
4 indicated its concern with “end-of-useful life issues with the equipment” and that it  
5 would “develop a strategy for the next General Rate Case to deal with the aging  
6 compressor station infrastructure.”<sup>19</sup> ORA will review the Moreno Compressor  
7 Replacement project when it is presented in a future rate case.

8 **b. Rainbow Compressor Decommissioning**

9 SDG&E identified in its Fueling Our Future initiative decommissioning aging  
10 infrastructure at Rainbow Compressor Station. The Rainbow Compressor Station is  
11 no longer required to operate so long as the Moreno Compressor Station is available  
12 to provide natural gas compression.<sup>20</sup> Capital work associated with the Rainbow  
13 Compressor station increased the Compressor Station forecast by \$0.450 million in  
14 2017 and \$0.150 million in 2018, which ORA does not oppose. ORA included the  
15 capital work related to the Rainbow Compressor Station in the forecast for 2017,  
16 2018 and 2019.

17 **c. Other Capital Improvements at Compressor**  
18 **Stations**

19 The other capital improvements at Compressor Stations include routine, bulk  
20 work based on a five-year average; the projects are small and not individually  
21 identified. The projects are treated as routine or blanket budget work.

22 **E. Cathodic Protection**

23 For Cathodic Protection, SDG&E requests \$0.184 million, \$0.184 million and  
24 \$0.184 million for 2017, 2018 and 2019, respectively. SDG&E determined its  
25 cathodic protection forecast expenditures by using a five-year averaging method.  
26 After reviewing SDG&E’s testimony and workpapers, and responses to discovery

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<sup>18</sup> Ex. SDG&E-07, p. JGT-13, lines 19-21.

<sup>19</sup> Ex. SDG&E-07, p. JGT-13, lines 22-24.

<sup>20</sup> Ex. SDG&E-07, p. JGT-14, lines 18-20.

1 requests, ORA recommends using SDG&E's recorded costs to forecast 2017. ORA  
 2 does not oppose SDG&E's forecast for Cathodic Protection for 2018 and 2019.

3 Table 10-8 below shows SDG&E's and ORA's forecast for 2017-2019  
 4 Cathodic Protection.

5 **Table 10-8**  
 6 **Cathodic Protection**  
 7 **2017-2019 Capital Expenditure Forecast**  
 8 **(in Thousands of 2016 Dollars)**

Description	ORA Recommended			SDG&E Proposed <sup>21</sup>		
	2017	2018	2019	2017	2018	2019
Cathodic Protection	\$209	\$184	\$184	\$184	\$184	\$184

9 **F. Meter and Regulator Stations**

10 For Measurement & Regulator Stations, SDG&E requests \$0.485 million,  
 11 \$0.485 million and \$0.485 million for 2017, 2018 and 2019. SDG&E determined its  
 12 measurement & regulation stations forecast expense by using a five-year averaging  
 13 method. After reviewing SDG&E's testimony and workpapers, and responses to  
 14 discovery requests, ORA recommends using SDG&E's recorded costs to forecast  
 15 2017. ORA does not oppose SDG&E's forecast for Measurement & Regulation  
 16 Stations for 2018 and 2019.

17 Table 10-9 below shows SDG&E's and ORA's forecast for 2017-2019 for  
 18 Measurement & Regulator Stations.

19 **Table 10-9**  
 20 **Meter and Regulator Stations**  
 21 **2017-2019 Capital Expenditure Forecast**  
 22 **(in Thousands of 2016 Dollars)**

Description	ORA Recommended			SDG&E Proposed <sup>22</sup>		
	2017	2018	2019	2017	2018	2019
Meter & Regulator Stations	\$504	\$485	\$485	\$485	\$485	\$485

23

<sup>21</sup> Ex. SDG&E-07, p. JGT-16, Table JGT-11.

<sup>22</sup> Ex. SDG&E-07, p. JGT-17, Table JGT-12.

1       **PART II: SoCALGas ADVANCED METERING INFRASTRUCTURE**

2       **I.       ADVANCED METERING INFRASTRUCTURE POLICY**

3               From 2010-2017, SoCalGas converted nearly six million customers to  
4       Advanced Metering Infrastructure (AMI) by installing a Meter Transmission Unit  
5       (MTU) on customer gas meters. SoCalGas deployed approximately 4,600 Data  
6       Collector Units (DCU), which receive meter reading data from the MTUs. The data  
7       is sent from the DCUs to SoCalGas where the information is available to the  
8       customer accounts via online, alerts and mobile applications.

9               **A. Overview of SCG’s Position**

10              SoCalGas is requesting O&M costs of \$10.477 million in 2019 for costs  
11      associated with Advanced Meter Operations (AMO). SoCalGas shows Capital  
12      Costs of \$24.718 million, \$9.292 million and \$4.815 million in 2017, 2018 and 2019.

13              **1. Regulatory Background and Overview**

14              SoCalGas filed Application (A.) A.08-09-023 which requested authorization to  
15      convert approximately six million customer meters to advanced meters. On April 8,  
16      2010, the Commission authorized the project in D.10-04-027. SoCalGas’ Advice  
17      Letter (AL) 4110 authorized SoCalGas to establish the Advanced Metering  
18      Infrastructure Balancing Account (AMIBA) to record O&M and capital related costs  
19      during the AMI project deployment period (2010-2017).<sup>23</sup>

20              AMI deployment consists of three components: (1) Meter Transmission Units  
21      (MTUs) installed on nearly 6 million gas meters; (2) Nearly 4,600 Data Collector  
22      Units (DCUs) throughout the service territory by TY 2019; and (3) back office  
23      systems that allow for collection and management of automated meter readings for  
24      billing.<sup>24</sup>

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<sup>23</sup> Ex. SCG-17, p. RFG-7, lines 4-9.

<sup>24</sup> Ex. SCG-17, p. RFG-7, lines 11-15.





1 **B. ORA's Analysis**

2 **1. Regulatory Background and Overview**

3 ORA reviewed SoCalGas process regarding implementation of AMI and has  
4 no recommended adjustments.

5 **2. Deployment Status**

6 ORA reviewed SoCalGas deployment process and has no recommended  
7 adjustments.

8 **3. AMI Treatment in TY 2019 GRC**

9 ORA reviewed AMI treatment for TY 2019 and has no recommended  
10 adjustments.

11 **II. ADVANCED METER OPERATIONS**

12 SoCalGas' Advanced Meter Operations (AMO) are separated into four  
13 primary components: (1) Network Management, (2) Business System Analytics, (3)  
14 Network Maintenance & Construction, and (4) System Operations. Two other  
15 components contributing to AMO are RAMP-AM and RAMP-DCU. RAMP-AM is  
16 included in Business System Analytics and RAMP-DCU is included in Network  
17 Maintenance and Construction. Table 10-10 below shows recorded AMO Expenses  
18 for 2012-2016 and SoCalGas' request and ORA's recommendation for TY 2019.

19 **Table 10-10**  
20 **Advanced Meter Operations Expenses**  
21 **2012-2016 Recorded and 2019 Forecast**  
22 **(in Thousands of 2016 Dollars)**

Description	2012	2013	2014	2015	2016	SCG 2019	ORA 2019
AMO Expenses	\$1.203	\$4.196	\$6.635	\$7.073	\$7.836	\$10,477	\$10,477
Total	\$1.203	\$4.196	\$6.635	\$7.073	\$7.836	\$10,477	\$10,477

23 Source: 2012-2016 data from SCG response to data request ORA-DR-001-MW5, Q.1a-d, 1f.

24 SoCalGas estimated TY 2019 forecast on a zero-based method for  
25 operations related to labor and non-labor because AMO will be in its first full year of  
26 operations. SoCalGas is requesting \$10.477 million in 2019 relating to AMO  
27 expenses.

1           **C. ORA’s Analysis**

2           ORA reviewed SoCalGas’ requests regarding AMO expenses. ORA  
3 examined SCG’s request for Network Management, Business System Analytics,  
4 Network Maintenance & Construction and System Operations. After reviewing  
5 SoCalGas’ testimony and workpapers, and responses to discovery requests, ORA  
6 does not oppose SoCalGas’ requests for AMO expenses.

7           **III. CAPITAL**

8           SoCalGas is requesting three (3) IT capital funding projects. The three  
9 projects include: DCU LTE Upgrade Program, DCU Software IS Upgrade and DCU  
10 Compliance Inspection Work Management. ORA does not oppose SoCalGas’  
11 business justification for the three IT projects; ORA’s capital expenditure forecast  
12 appears in Ex. ORA-20.

13           **A. DCU LTE Upgrade**

14           Each DCU contains a cellular communications card provided by Verizon  
15 Wireless or AT&T Wireless that relays meter reading and other data from the DCUs  
16 back to the Head End system.<sup>27</sup> Verizon has announced they will no longer support  
17 the older equipment by the end of the decade (2020).<sup>28</sup> AT&T has not announced a  
18 sunset date for their equipment but SCG expects it to be announced for the early to  
19 mid-2020s.<sup>29</sup>

20           **1. Overview of SCG’s Request**

21           SoCalGas forecasts \$1.051 million in 2018 and \$4.265 million in 2019. The  
22 breakdown includes \$0.085 million in labor and \$0.966 million in non-labor for 2018  
23 and \$0.357 million in labor and \$3.908 million in non-labor in 2019.

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<sup>27</sup> Ex. SCG-17, p. RFG-24, lines 7-9.

<sup>28</sup> Ex. SCG-17, p. RFG-24, lines 11-12.

<sup>29</sup> Ex. SCG-17, p. RFG-24, lines 12-13.

1                                   **2. ORA’s Analysis**

2                   ORA reviewed the DCU LTE Upgrade project and does not oppose SCG’s  
3 business justification for this project.

4                                   **B. DCU Software Information Security Upgrade**

5                   The DCU Software Information Security (IS) Upgrade Project enhances  
6 existing IS capabilities of Advanced Meter hardware and IT systems to adapt and  
7 better defend against increasing cybersecurity threats.<sup>30</sup>

8                                   **1. Overview of SCG’s Request**

9                   SoCalGas forecasts \$0.248 million in 2018 and \$0.316 million in 2019. The  
10 breakdown includes \$0.072 million in labor and \$0.176 million in non-labor for 2018  
11 and \$0.092 million in labor and \$0.224 million in non-labor in 2019.<sup>31</sup>

12                                   **2. ORA’s Analysis**

13                   ORA reviewed SoCalGas DCU Software IS Upgrade and does not oppose  
14 SCG’s business justification for this project.

15                                   **C. DCU Compliance Inspection Work Management**

16                   The DCU Compliance Inspection Work Management project is for SoCalGas  
17 to transition from using Siterra to SAP. Siterra is a 3<sup>rd</sup> party application (provided by  
18 the AMI vendor during DCU deployment); SoCalGas proposes to transition to SAP,  
19 which is the company’s current asset management system.

20                                   **1. Overview of SCG’s Request**

21                   SoCalGas is requesting \$0.469 million in 2018 and \$0.234 million in 2019.  
22 Costs associated with the DCU Compliance Inspection Work Management program  
23 include only labor costs.

24                                   **2. ORA’s Analysis**

25                   ORA reviewed SoCalGas’ request for DCU Compliance Inspection Work  
26 Management and does not oppose SCG’s business justification for this project.

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<sup>30</sup> Ex. SCG-17, p. RFG-25, lines 5-7.

<sup>31</sup> Ex. SCG-26-CWP/Witness: C. Olmsted, p. 854 of 871.

1 **IV. OTHER AMI-RELATED MATTERS**

2 The following sections describe the impacts of AMI on various business  
3 areas.

4 **A. AMI Impacted Business Areas**

5 Table 10-11 below shows SCG’s 2008 AMI application forecast net benefits  
6 versus forecast TY 2019 net benefits and the variance.

7 **Table 10-11**  
8 **Summary 2008 AMI Application vs. TY 2019**  
9 **Aggregate O&M and Capital Costs and Benefits**  
10 **(Thousands of 2016 Dollars)**

	<b>AMI Application</b>	<b>TY 2019</b>	<b>Variance</b>
O&M Costs (a)	\$15,913	\$19,182	\$3,269
O&M Benefit (b)	\$86,571	\$96,624	\$10,053
Net O&M Benefit (b-a)	\$70,658	\$77,442	\$6,784
Capital Cost (c)	\$4,417	\$11,370	\$6,953
Capital Benefit (d)	\$29,243	\$20,048	\$(9,195)
Net Capital Benefit (d-c)	\$24,826	\$8,678	\$(16,148)

11 Source: SCG-17-R, p. RFG-26, Table RG-9.

12 **1. Overview of SCG’s Request**

13 The operating benefits regarding AMI have impacted several SoCalGas’  
14 business units and are reflected or discussed in their forecasts and/or testimony.<sup>32</sup>

15 **2. ORA’s Analysis**

16 ORA reviewed the AMI Impacted Business Areas and individual  
17 recommendations can be found in corresponding ORA testimony. Regarding the  
18 impact on Ex. SCG-17, ORA has no recommendation.

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<sup>32</sup> Ex. SCG-17, p. RFG-26, lines 17-18.

1           **B. AMI Opt-Out Program**

2           In A.12-05-016, SoCalGas requested authorization for the Advanced Meter  
3 Opt-Out Program in order to provide the option to customers who do not wish to  
4 have an MTU at their location.<sup>33</sup> In D.14-02-019, the Commission approved the  
5 Opt-Out program with an interim fee structure consistent with other California  
6 Investor Owned Utilities (IOUs). In D.14-12-078, the interim opt-out fees and  
7 charges were adopted as permanent fees and charges for residential customers.

8                           **1. Overview of SCG’s Request**

9           SoCalGas proposes a true-up of the Advanced Meter Opt-Out Program  
10 Balancing Account (AMOPBA) in TY 2019.

11                           **2. ORA’s Analysis**

12           ORA reviewed the program implementation and has no recommendation.  
13 ORA reviewed the AMOPBA status and further discussion and recommendation can  
14 be found in Ex. ORA-30.

15                           **a. Program Implementation**

16           At the time the Opt-Out Program was started, it was assumed no more than  
17 0.5 percent would opt-out; as of June 2017 approximately 27,028 (0.46 percent) are  
18 actively enrolled in the Opt-Out program.<sup>34</sup>

19                           **b. AMOPBA Status**

20           SCG’s Opt Out Program expenses are incurred both for implementation and  
21 for bi-monthly manual meter reading. Due to schedules and timing of its GRC, the  
22 first opportunity to integrate Opt-Out related expenses was in SCG’s TY 2019 GRC,  
23 which is five years after the program was authorized and two years past the initial  
24 three-year program period. The details are discussed further in Ex. SCG-42 and Ex.  
25 ORA-30.

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<sup>33</sup> Ex. SCG-17, p. RFG-35, lines 17-19.

<sup>34</sup> Ex. SCG-17, p. RFG-37, line 12-14.

1           **C. Customer Conservation**

2           AMI benefits appear to contribute to operational savings, avoided costs and  
3 customer conservation efforts. Customer conservation program tools and  
4 capabilities include: new conservation “behavior changes,” bill tracker alerts, new  
5 energy presentment and analysis tools. SoCalGas provides hourly and daily gas  
6 usage to customers.

7                           **1. Overview of SCG’s Request**

8           Ongoing operation and support for customers are provided predominantly  
9 through SCG’s Digital Engagement team and Customer Contact Center. SCG  
10 asserts that continued funding of the software and services fees are essential for  
11 customer energy conservation and bill management.<sup>35</sup>

12                           **2. ORA’s Analysis**

13           D.10-04-027 set a goal for SoCalGas to reduce residential gas consumption  
14 by one percent.<sup>36</sup> During the most recent campaign in 2016-2017, SoCalGas  
15 customers achieved a 1.6 percent average savings.<sup>37</sup> ORA reviewed customer  
16 conservation and ORA’s recommendation for Digital Engagement team and for  
17 Customer Contact Center can be found in Ex. ORA-17 (Ex. SCG-20, SCG-19).

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<sup>35</sup> Ex. SCG-17, p. RFG-43, lines 3-5.

<sup>36</sup> Ex. SCG-27, p. RFG-40, lines 23-24.

<sup>37</sup> Ex. SCG-17, p. RFG-41, lines 12-15.

1

## WITNESS QUALIFICATIONS

2           My name is Monica Weaver. My business address is 505 Van Ness Avenue,  
3 San Francisco, California 94102. I am employed by the Office of Ratepayer  
4 Advocates (ORA) as a Public Utilities Regulatory Analyst I in the Energy Cost of  
5 Service and Natural Gas Branch.

6           I have a Bachelor's of Science in Business with an emphasis in Accounting  
7 from the University of Phoenix. I joined the Commission on February 8, 2016 in  
8 ORA's Energy Cost of Service and Natural Gas Branch. In ORA, I have worked on  
9 the 2015 and 2016 ERRRA compliance proceedings for both PG&E and SDG&E,  
10 auditing and evaluating balancing and memorandum accounts. I worked on the  
11 West Coast Gas GRC (A.16-07-017) and was responsible for operating expenses,  
12 franchise fees & uncollectibles, cost of capital and attrition. I worked on the Bear  
13 Valley Electric Service GRC (A.17-05-004) and was responsible for operating  
14 expenses associated with production, transmission, distribution and customer  
15 accounts.

16           This completes my prepared testimony.