

Docket: : A.15-09-001  
Exhibit Number : ORA-7  
Commissioner : M. Picker  
ALJ : S. Roscow  
Witness : M. Campbell



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

**Report on the Results of Operations  
for  
Pacific Gas and Electric Company  
Test Year 2017  
General Rate Case**

**Gas Distribution Expenses  
Part 2 of 2**

San Francisco, California  
April 8, 2016

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1 **GAS DISTRIBUTION EXPENSES**  
2 **Part 2 of 2**

3 **I. INTRODUCTION**

4 This exhibit presents the analyses and recommendations of the Office of  
5 Ratepayer Advocates (ORA) regarding Pacific Gas and Electric Company's (PG&E)  
6 forecasts of Gas Distribution operations and maintenance (O&M) expenses for Test  
7 Year (TY) 2017. This exhibit addresses expenses associated with Chapters 4 and 5  
8 of Exhibit (Ex.) PG&E-3, which are not addressed in Ex. ORA-6 (Gas Distribution  
9 Expenses, Part 1 of 2).

10 Gas distribution O&M expenses are for work activities related to operation  
11 labor and expenses, storage, operation supervision and engineering, main and  
12 service expenses, measurement and regulator storage expenses, other gas  
13 distribution expenses, maintenance supervision and engineering, maintenance of  
14 mains and services, measurement and regulator station expenses, maintenance of  
15 meters and house regulators, and maintenance of other equipment. Some specific  
16 work activities include leakage surveys, leak repairs, application of corrosion control  
17 measures, valve maintenance, monitoring meter accuracy, odorant, and locating and  
18 marking buried pipes to avoid damage caused from digging by others.

19 **II. SUMMARY OF RECOMMENDATIONS**

20 The following summarizes ORA's recommendations regarding Gas  
21 Distribution expenses for 2017 which are addressed in this exhibit:

- 22 • For Asset Families - Gas Distribution Mains and Services expenses,  
23 ORA does not oppose PG&E's request of \$39.460 million.
- 24 • For the Cross Bore Program, ORA recommends that PG&E be  
25 directed to submit annual reports to the Commission which track the  
26 forecast versus actual cross bore inspections, repairs, and expenses,  
27 and explain variances between forecast and actual amounts.
- 28 • ORA does not oppose PG&E's forecast of \$5.4 million for  
29 Compressed Natural Gas Stations.

1 Table 7-1 compares ORA's and PG&E's 2017 forecasts of Gas Distribution  
2 expenses addressed in this exhibit:

3 **Table 7-1**  
4 **Gas Distribution**  
5 **2017 Expense Forecast**  
6 **(In Thousands of Dollars)**

Description (a)	ORA Recommended (b)	PG&E Proposed <sup>1</sup> (c)	Amount PG&E>ORA (d=c-b)	Percentage PG&E>ORA (e=d/b)
Distr Mains & Services	\$39,460	\$39,460	\$0	0%
Compressed Natural Gas Stations	\$5,431	\$5,431	\$0	0%
Total	\$44,891	\$44,891	\$0	0%

7 **III. ASSET FAMILY – DISTRIBUTION MAINS AND SERVICES**

8 This section discusses expenses for Asset Family – Distribution Mains and  
9 Services.

10 **A. Overview of PG&E's and ORA's Forecasts**

11 The following table summarizes PG&E's request and ORA's recommendation  
12 for Asset Family – Distribution Mains and Services expenses. PG&E's expense  
13 forecast request is to support the staffing of PG&E's Distribution Integrity  
14 Management Program, and the expenses relating to the Cross Bore, Plastic Tee  
15 Cap, Meter Protection, and Overbuild Programs.<sup>2</sup>

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<sup>1</sup> Ex. PG&E-18, p.18-7 and Ex. PG&E-3, p.5-2

<sup>2</sup> Ex. PG&E-3, p. 4-2

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**Table 7-2**  
**Asset Family – Distribution Mains & Services**  
**2010-2015 Recorded and TY2017 Expense Forecast**  
**(In Thousands of Dollars)**

Description	2010	2011	2012	2013	2014	PG&E 2015	PG&E <sup>3</sup> 2017 <sup>3</sup>	ORA 2017
Gas Dist Integrity Mgt (Non Bal)	-	\$24,674	\$26,586	\$18,795	\$31,764	\$25,437	\$34,952	\$34,952
Gas Dist Integrity Mgt (Bal Acct)	-	-	-	\$8,703	-	-	-	-
Gas Dist Corrective Maintenance	\$1,128	\$1,315	\$1,737	\$1,616	\$1,444	\$3,072	\$3,044	\$3,044
Gas Dist Meter Protection	\$97	\$486	\$7,942	\$2,022	\$2,679	\$503	\$1,465	\$1,465
Total	\$1,225	\$26,475	\$36,265	\$31,135	\$35,887	\$29,012	\$39,461	\$39,461

5 Source: 2010-2014 data from Ex. PG&E-3, p. 4-44, Table 4-10. 2015 data from Attachment GRC-2017-  
6 Phi\_DR\_ORA\_Oral025\_Atch02.xlsx

7 ORA does not oppose PG&E's forecast of \$39.5 million<sup>4</sup> in 2017 for  
8 Distribution Mains and Services expenses. ORA recommends a new reporting  
9 requirement for the Cross Bore Program under the Distribution Integrity  
10 Management Program.

### 11 **B. ORA's Analysis**

12 ORA conducted an independent analysis of PG&E's O&M expense estimates  
13 for its gas distribution asset family for Distribution Mains and Services (DMS). ORA  
14 analyzed PG&E's application, supplemental exhibits, PG&E's errata, supporting  
15 work-papers, PG&E's data request responses, and e-mails. PG&E provided six  
16 years of historical data (2010 through 2015) as well as projections for future years  
17 and Test Year 2017.

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<sup>3</sup> Ex. PG&E-18, p. 18-7, Table 4-1

<sup>4</sup> Ex. PG&E-18, p.18-6,line 9

1                                   **1. Gas Distribution – Integrity Management Program**  
2                                   **(DIMP)**

3                   PG&E requests an increase in funding to provide adequate resources for  
4 issues identified by the Distribution Integrity Management Program (DIMP). The  
5 DIMP resources include maintenance and construction, laboratory analysis;  
6 engineering, mapping, etc.<sup>5</sup> PG&E’s TY 2017 forecast of \$34.952 million is an  
7 increase of \$3.2 million over 2014 recorded expenses of \$31.764 million. The  
8 Distribution Integrity Management organization is responsible for the integrity  
9 management of the gas distribution system. It focuses on identifying risk,  
10 understanding the drivers behind the risk and establishing mitigation activities to  
11 reduce risk.<sup>6</sup>

12                   ORA reviewed PG&E’s testimony, work-papers, data request responses, and  
13 historical expense levels for PG&E’s programs under the Gas Distribution - Integrity  
14 Management Program and does not oppose PG&E’s 2017 expense forecasts. ORA  
15 takes issue with PG&E’s unspent funds and low record of number of inspections  
16 completed for the Cross Bore Program portion of DIMP, as discussed below:

17                                   **a. The Cross Bore Program (MAT JQK)**

18                   Table 7-3 provides PG&E’s recorded expenses for 2014 and 2015 and  
19 forecast for 2016 and TY2017, for the Cross Bore Program.

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<sup>5</sup> Ex. PG&E-3, p.4-5

<sup>6</sup> Ex. PG&E-3, p.4-13

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**Table 7-3**  
**Gas Distribution Integrity Management Programs**  
**PG&E – Cross Bore Program**  
**(In Thousands of Dollars)**

Line	Program Description	2014 Forecasted	2014 Recorded	2015 Forecasted	2015 Recorded	2016 Forecast	2017 Forecast
1	Crossbore Records (Total \$)		\$6,276	\$9,196	\$4,882	\$7,300	\$7,300
2	Number of Inspections	30,000	33,570	24,000	23,531	40,000	45,000
3	Cost per inspection	\$250	\$308	\$300	\$306	\$287	\$287
4	Crossbore Inspection (Total \$)	\$7,500	\$10,331	\$9,196	\$7,205	\$11,460	\$12,893
5	Number of Repairs	500	186	144	111	240	270
6	Cost per repair	\$7,355	\$5,600	\$5,900	\$12,982	\$5,635	\$5,635
7	Crossbore Repair (Total \$)	\$3,758	\$1,042	\$3,375	\$1,441	\$1,352	\$1,521
8	<b>Total Recorded - JQK</b>	<b>\$14,458</b>	<b>\$17,649</b>	<b>\$12,570</b>	<b>\$13,528</b>	<b>\$20,112</b>	<b>\$21,714</b>

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Source: 2014, 2015, 2016 and 2017 data from Ex. PG&E-3, WP 4-43. 2015 Recorded data from ORA-PG&E-202-MCL, Q.1, supplemental response, attach. 1, March 29, 2016

8 PG&E requests \$21.714 million for DIMP expenses associated with the Cross  
9 Bore Program for Test Year 2017. PG&E's funding request is based on an increase  
10 in the annual number of inspections to identify and resolve cross bores in sewers  
11 from 33,570 inspections in 2014 to 45,000 inspections in 2017.<sup>7</sup> A cross bore is the  
12 inadvertent placement of a gas main or service through a sewer line. In 2011, PG&E  
13 developed the Cross Bore Program, to inspect for, identify and remediate cross  
14 bores on the gas distribution system that were installed using trenchless technology.  
15 This program utilizes video equipment to inspect sewer mains and laterals for  
16 potential cross bore situations and then repairs any identified cross bores that result  
17 from the inspections.<sup>8</sup>

18 In Decision (D.) 14-08-032, the Commission authorized PG&E \$14.458 million  
19 in expenses for 2014 for this program. The Commission found it reasonable for  
20 PG&E to inspect 30,000 sewer lines and 500 cross bores repairs with a budget of

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<sup>7</sup> Ex. PG&E-3, p. 4-5

<sup>8</sup> Ex. PG&E-3, wp. 4-42

1 \$3.2 million for engineering review, \$7.5 million for inspections, and a unit cost of  
2 \$5,000 for cross bore remediation.<sup>9</sup>

3 PG&E recorded \$17.649 million in expenses for the 2014 base year, and  
4 completed 33,570<sup>10</sup> cross bore inspections and 186<sup>11</sup> repairs. For 2015, PG&E  
5 recorded \$13.528 million in expenses, and completed 23,531 inspections and 111  
6 repairs. This compares with PG&E's 2015 forecast of conducting 24,000 inspections  
7 and 144 repairs.

8 PG&E's TY2017 forecast is: (1) \$7.256 million above the amount the  
9 Commission authorized PG&E to spend in its last general rate case for the Cross  
10 Bore Program, and (2) \$8.187 million higher than PG&E's latest 2015 recorded  
11 expenses of \$13.528 million, a year in which PG&E completed 23,531 inspections  
12 and 111 repairs.

13 This program has been implemented and developed to inspect, identify and  
14 remediate cross bores on the gas distribution system since 2011.<sup>12</sup> As the Cross  
15 Bore Program is an important part of PG&E's DIMP program, ORA recommends that  
16 PG&E be directed to submit annual reports to the Commission which track the  
17 forecast versus actual cross bore inspections, repairs, and expenses since  
18 inception. ORA recommends this reporting requirement because PG&E should be  
19 held accountable for its Cross Bore Program forecasts, to be sure that PG&E is able  
20 to conduct the number of inspections it forecasts as the utility ramps up its efforts,  
21 especially since the Commission is inclined to authorize PG&E's requested funding  
22 for this program. In the annual report, PG&E should also be required to explain  
23 variances between forecasted and actual inspections, repairs, and expenses.

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<sup>9</sup> D.14-08-032, pp. 47-48.

<sup>10</sup> Ex. PG&E-3, p. 4-16, line 22

<sup>11</sup> Ex. PG&E-3, p. WP 4-43

<sup>12</sup> Ex. PG&E-3, p. 4-15

1                                   **2. Meter Protection Program (MWC EX)**

2                   The Meter Protection Program (MPP) mitigates safety risks associated with  
3 customer meters that are vulnerable to vehicular damage and valve locations that  
4 are inaccessible.<sup>13</sup> PG&E requests \$1.5 million in expenses for TY 2017 as the  
5 program transitions from a dedicated program to ongoing maintenance.<sup>14</sup> ORA  
6 does not oppose PG&E’s 2017 expense request for the Meter Protection Program.

7                                   **3. Corrective Maintenance or Overbuild Program**  
8                                   **Expense (MAT FIO)**

9                   The Overbuild Program identifies and corrects locations where customers or  
10 third parties have built over PG&E’s gas distribution facilities. The overbuild process  
11 is conducted by field personnel and identify these overbuild locations during routine  
12 maintenance activities and PG&E takes corrective actions.<sup>15</sup> PG&E requests  
13 \$3.044 million in expenses for TY 2017. ORA reviewed historical and most recent  
14 expenses for PG&E’s Overbuild Program and does not oppose PG&E’s TY forecast  
15 for this program.

16 **IV. ASSET FAMILIES – MEASUREMENT AND CONTROL, AND**  
17 **COMPRESSED NATURAL GAS STATIONS**

18                   PG&E describes its gas distribution asset families as; the Measurement and  
19 Control (M&C) and the Liquefied Natural Gas/Compressed Natural Gas (LNG/CNG)  
20 asset families (both referred to as “facilities”).<sup>16</sup> The gas distribution assets include  
21 gas regulation facilities as part of the M&C asset family, and compressed natural gas  
22 (CNG) stations as part of the LNG/CNG asset family.

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<sup>13</sup> Ex. PG&E-3, p. 4-41

<sup>14</sup> Ex. PG&E-3, p.4-5

<sup>15</sup> Ex. PG&E-3, p.4-19, p.4-20

<sup>16</sup> Ex. PG&E-3, p. 5-1

1 This section discusses PG&E’s expenses for its Compressed Natural Gas  
2 Station Program in major work category (MWC) GM.

3 **A. Overview of PG&E’s and ORA’s Forecasts**

4 The following table summarizes PG&E’s request and ORA’s recommendation  
5 for Asset Families – Compressed Natural Gas Stations expense.

6 **Table 7-4**  
7 **Asset Families – Measurement & Control, and Compressed Natural Gas Stations**  
8 **2010-2014 Recorded and 2017 Expense Forecast**  
9 **(In Thousands of Dollars)**

Description	2010	2011	2012	2013	2014	PG&E 2017	ORA 2017
MWC GM	\$2,968	\$2,375	\$3,520	\$3,513	\$5,487	\$5,431	\$5,431
Total	\$2,968	\$2,375	\$3,520	\$3,513	\$5,487	\$5,431	\$5,431

10 Source: 2010-2014 data from Ex. PG&E-3, p. 5-27, Table 5-4.

11 PG&E requests \$5.4 million in expenses for work activities associated with  
12 maintenance and operating expenditures for its Compressed Natural Gas Stations  
13 (CNG) in major work category (MWC) GM for its TY 2017.

14 **B. ORA’s Analysis**

15 ORA conducted an independent analysis of PG&E’s O&M expense estimates  
16 for its gas distribution asset families for its Compressed Natural Gas Stations. ORA  
17 analyzed PG&E’s application, supplemental exhibits, PG&E’s errata, supporting  
18 work-papers, PG&E’s data request responses, and e-mails. PG&E provided five  
19 years of historical data (2010 through 2014) as well as projections for future years  
20 and Test Year 2017.

21 PG&E’s CNG station assets, comprising 32<sup>17</sup> stations located system-wide,  
22 provide fuel to over 6,000 third-party vehicles, ranging from passenger vehicles  
23 owned by individuals up though large municipal transportation organizations and  
24 large corporate fleets of passenger cars and trucks (e.g., UPS, AT&T). The CNG

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<sup>17</sup> Ex. PG&E-18, p. 18-11

1 stations also provide fuel to approximately 500 PG&E vehicles.<sup>18</sup> PG&E records  
2 expenses associated with its CNG Station Program in Major Work Category (MWC)  
3 GM.<sup>19</sup>

4 ORA does not oppose PG&E's TY 2017 expense forecast for Compressed  
5 Natural Gas Stations, MWC GM.

## 6 **V. WITNESS QUALIFICATIONS**

7 My name is Mariana C. Campbell. My business address is 505 Van Ness  
8 Avenue, San Francisco, California. I am employed by the California Public Utilities  
9 Commission as a Public Utilities Regulatory Analyst II in the Office of Ratepayer  
10 Advocates Energy Cost of Service and Natural Gas Branch.

11 I received a Bachelor of Arts degree in Electronic Media, with a major in  
12 Radio & Television, from San Francisco State University in 1995. I was previously  
13 employed by a Telecommunications Research Company.

14 I have been employed by the Commission since 2001. I have worked on Low  
15 Income Energy Efficiency issues. Assignments with ORA consisted of reviewing  
16 and analyzing Energy Low Income Assistance Programs and Budgets for California  
17 Alternate Rate for Energy and Low Income Energy Efficiency. I have submitted  
18 testimony on:

- 19 • Operating expenses for the Kerman Telephone Company General  
20 Rate Case (GRC) (A.02-01-004);
- 21 • Administrative & General (A&G) expenses for the California  
22 American Water 2007 GRC (A.07-01-037), the California Water  
23 Service Company 2008 GRC (A.07-07-001), the Southwest Gas  
24 Corporation 2009 GRC (A.07-12-022), and the Bear Valley Electric  
25 Service 2009 GRC (A.08-06-034);
- 26 • Operation & Maintenance (O&M) Expenses – Customer Accounts  
27 and Energy Efficiency Programs for the Sierra Pacific Power  
28 Company 2009 GRC (A.08-08-004);

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<sup>18</sup> Ex. PG&E-3, p. 5-2

<sup>19</sup> Ex. PG&E-3, p. 5-2

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- A&G expenses for the Pacific Gas and Electric Company 2011 GRC (A.09-12-020) and Sempra 2012 GRC (A.10-12-005/006);
  - A&G expenses, Tax expenses and Special Requests for the Bear Valley Electric Service 2013 GRC (A.12-02-013);
  - Tax expenses for the Southern California Edison Company 2015 General Rate Case (A.13-11-003);
  - Tax expenses for the SDG&E and SoCal Gas 2016 General Rate Case (A.14-11-003,-004);
  - Other Taxes, Energy Efficiency Programs and Solar Incentive Program for the Liberty Utilities 2016 GRC (A.15-05-008).

11 This completes my prepared testimony.