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**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**

Electric Distribution Expenses

San Francisco, California
April 8, 2016

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1

ELECTRIC DISTRIBUTION EXPENSES

2 I. INTRODUCTION

3 This exhibit presents the analyses and recommendations of the Office of
4 Ratepayer Advocates (ORA) regarding Pacific Gas and Electric Company's (PG&E)
5 forecasts of Electric Distribution operation and maintenance (O&M) expenses for
6 Test Year (TY) 2017, as presented in Exhibit (Ex.) PG&E-4.

7 Electric Distribution O&M expenses are for work activities related to planning,
8 engineering, construction, operation, supervision, and maintenance associated with
9 the electric distribution system, load dispatching, station expenses, overhead and
10 underground lines, poles, street lighting, customer installations, tree trimming, line
11 transformers, and miscellaneous work.

12 II. SUMMARY OF RECOMMENDATIONS

13 The following summarizes ORA's recommendations:

- 14 • ORA recommends \$673.5 million as the 2017 O&M expense for
15 Electric Distribution. This amount is \$49.1 million lower than
16 PG&E's forecast of \$722.6 million.
- 17 • ORA does not take issue with PG&E's request to continue the two-
18 way balancing account for its expense (and capital) costs incurred
19 for major emergencies
- 20 • ORA does not take issue with PG&E's expense proposal for
21 Vegetation Management or its request to continue the one-way
22 balancing account.

23

1 Table 9-1 compares ORA's and PG&E's TY2017 forecasts of Electric
 2 Distribution expenses addressed in this exhibit:

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**Table 9-1
 Electric Distribution
 2017 Expense Forecast
 (In Thousands of Dollars)**

Description (a)	ORA Recommended (b)	PG&E Proposed[1] (c)	Amount PG&E>ORA (d=c-b)	Percentage PG&E>ORA (e=d/b)
Emergency Preparedness & Response (MWC AB)	\$9,237	\$9,237	\$0	0%
Elec Emergency Recovery	\$128,467	\$134,873	\$6,406	5%
Dist. System Operations	\$57,809	\$67,009	\$9,200	16%
Elec Dist. Maintenance	\$164,500	\$169,803	\$5,303	3%
Vegetation Management	\$200,000	\$200,000	\$0	0%
Pole Asset Management	\$14,559	\$14,559	\$0	0%
Elec Distribution Reliability	\$0	\$0	\$0	0%
Distribution Automation & System Protection	\$2,114	\$2,114	\$0	0%
Underground Asset Mgmt.	\$0	\$0	\$0	0%
Substation Asset Mgmt.	\$42,035	\$42,035	\$0	0%
Elec Distribution Capacity	\$0	\$1,650	\$1,650	-%
Electric Distribution Engineering & Planning	\$21,590	\$21,590	\$0	0%
Elec Dist. Technology	\$0	\$7,395	\$7,395	-%
Elec Dist. Mapping & Records Management	\$0	\$10,596	\$10,596	-%
New Business & WRO	\$29,147	\$32,488	\$3,341	11%
Rule 20A	\$0	\$0	\$0	0%
Elec Dist. Support Activities	\$4,060	\$9,205	\$5,145	127%
Total	\$673,518	\$722,643	\$49,125	7%

1[1] Ex. PG&E-4, pp. 1A-8 to 1A-9.

1 **III. EMERGENCY PREPAREDNESS AND RESPONSE**

2 PG&E’s Emergency Preparedness and Response (EP&R) functional area
3 covers expenses for one of PG&E’s top risks—a catastrophic emergency such as a
4 major earthquake that could affect one or more areas of PG&E’s service territory.¹
5 PG&E states the EP&R expense request is “...for preparing the Company to
6 respond to catastrophic events by having integrated plans, and the appropriate
7 facilities, logistics, technology, and processes in-place prior to a catastrophic
8 event.”² According to PG&E, each Line of Business (LOB) is responsible for
9 developing its own emergency response plan, but EP&R provides guidance and
10 assistance to each LOB to standardize response plans.³

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

12 The following table summarizes PG&E’s request and ORA’s recommendation
13 for Emergency Preparedness and Response expenses.

14 **Table 9-2**
15 **Emergency Preparedness and Response**
16 **2010-2014 Recorded and 2017 Expense Forecast**
17 **(In Thousands of Dollars)**

Description	2010	2011	2012	2013	2014	PG&E 2017	ORA 2017
MWC AB	\$-	\$-	\$-	\$196	\$5,807	\$9,237	\$9,237
Total	\$-	\$-	\$-	\$196	\$5,807	\$9,237	\$9,237

18 Source: 2010-2014 recorded data and 2017 forecast from Ex. PG&E-4, p. WP 3-3.

19 **B. ORA’s Analysis**

20 After reviewing PG&E’s testimony, workpapers, and discovery responses,
21 ORA does not dispute PG&E’s request of \$9.2 million for Emergency Preparedness
22 and Response for 2017.

¹ Ex. PG&E-4, p. 3-1.

² Ex. PG&E-4, p. 3-1.

³ Ex. PG&E-4, p. 3-4.

1 **IV. ELECTRIC EMERGENCY RECOVERY**

2 PG&E’s Electric Emergency Recovery (EER) functional area covers
3 expenses for responding to electric emergency incidents by: (1) responding to
4 incidents and outages during routine and major emergencies, (2) repairing and
5 replacing equipment related to routine and major emergencies, and (3) staffing the
6 Emergency Operations Center, Region Emergency Centers and Operations
7 Emergency Centers during major emergencies.⁴

8 PG&E requests that the Commission adopt \$134.9 million for EER for 2017.
9 This is \$25.4 million (or 23%) above the 2014 recorded adjusted expense of \$109.5
10 million. ORA recommends \$128.5 million, which is \$19.0 million higher than the
11 PG&E 2014 recorded spending.

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

13 The following table summarizes PG&E’s request and ORA’s recommendation
14 for Electric Emergency Recovery expenses.

15 **Table 9-3**
16 **Electric Emergency Recovery**
17 **2010-2014 Recorded and 2017 Expense Forecast**
18 **(In Thousands of Dollars)**

Description	2010	2011	2012	2013	2014	PG&E 2017	ORA 2017
MWC BH, Routine	\$72,534	\$75,963	\$85,692	\$77,883	\$81,970	\$88,376	\$81,970
MWC IF, Major	\$42,876	\$71,500	\$36,426	\$20,607	\$27,492	\$46,497	\$46,497
Total	\$115,411	\$147,463	\$122,118	\$98,490	\$109,462	\$134,873	\$128,467

19 Source: 2010-2014 recorded data and 2017 forecast from Ex. PG&E-4, p. WP 4-1.

20 **B. ORA’s Analysis**

21 ORA reviewed PG&E’s testimony, workpapers, and data responses and takes
22 issue with the company’s forecast of \$88.4 million in expenses for MWC BH-
23 Distribution Routine Emergency. ORA does not dispute PG&E’s request of \$46.5

⁴ Ex. PG&E-4, p. 4-1.

1 million for MWC IF, Distribution Major Emergency. ORA recommends a total of
 2 \$128.5 million, comprising \$82.0 million for MWC BH and \$46.5 million for Electric
 3 Distribution Emergency Recovery, MWC IF.

4 **1. MWC BH—Distribution Routine Emergency**

5 MWC BH captures the expenses for PG&E to respond to overhead or
 6 underground-related outages during routine conditions.⁵ PG&E states that its
 7 troublemen and crews make the situation safe, restore power to customers and
 8 isolate the trouble location so repairs can be made.⁶ The table below shows the
 9 recorded expenses, in nominal dollars, for MWC BH each year from 2010-2014 and
 10 PG&E’s 2017 forecast. It also shows ORA’s recommendation for 2017.

11 **Table 9-4**
 12 **Electric Emergency Recovery—Routine Emergency**
 13 **(In Thousands of Dollars)**

MWC	2010	2011	2012	2013	2014	PG&E 2017	ORA 2017
BH	\$72,534	\$75,963	\$85,692	\$77,883	\$81,970	\$88,376	\$81,970

14 For MWC BH, PG&E requests \$88.4 million for 2017, which is 66% of the
 15 \$134.9 million total of PG&E’s proposal for EER.⁷ The remainder of the total
 16 expense is allocated to MWC IF, Distribution Major Emergency, which is discussed
 17 in the section immediately below. The PG&E 2017 forecast for MWC BH is 6.4%
 18 higher than the 2014 recorded expenses. ORA recommends \$82 million in
 19 expenses for MWC BH for 2017. ORA’s recommendation uses the 2014 recorded
 20 spending as the 2017 forecast. The basis of ORA’s recommendation is discussed
 21 below.

⁵ Ex. PG&E-4, p. 4-17.

⁶ Ex. PG&E-4, p. 4-17.

⁷ Ex. PG&E-4, p. 4-17.

1 PG&E’s 2017 forecast for MWC BH, \$88.4 million, is based on a 3-year
2 average (2012-2014), plus 6% escalation for 2012, and 3% for 2013.⁸ PG&E’s
3 justification for using the 3-year average is, “...due to the variability of EER costs.”⁹
4 ORA disagrees with PG&E’s forecast and proposes \$82.0 million as the 2017
5 expense amount for MWC BH.

6 PG&E claims that its system has made great progress in recent years. PG&E
7 states, “In 2014, PG&E delivered its sixth straight year of record electric reliability
8 performance as measured by the System Average Interruption Duration Index
9 (SAIDI), and the System Average Interruption Frequency Index (SAIFI). PG&E’s
10 SAIDI and SAIFI performance in 2014 was the best in Company history.”¹⁰
11 PG&E’s reliability should continue to improve due to efficiency gains, from an
12 increase in capital expenditures for system improvements proposed in this GRC,
13 and the fact that PG&E recently received separate funding to elevate its electric
14 system reliability through the Cornerstone Improvement Project. PG&E is using the
15 latest seismic standards to address substation threats, and all new major assets are
16 expected to withstand a magnitude 7.0 earthquake.¹¹ PG&E is developing a new
17 risk assessment software called STAR, which the utility claims will drive consistency
18 and improve risk management within and across asset classes.¹²

19 In Decision (D.) 10-06-048 (A. 08-05-023), the Commission authorized \$357.4
20 million in capital and \$9.2 million in expense for the period of 2010-2013 for PG&E to
21 implement a program to improve its electric distribution system reliability.¹³ The

⁸ Ex. PG&E-4, p. 4-20.

⁹ Id.

¹⁰ Ex. PG&E-4, p. 1-10.

¹¹ Ex. PG&E-4, p. 2-13,

¹² Ex. PG&E-4, pp. 2-8 to 2-9.

¹³ D.10-06-048 authorizes funding for Pacific Gas and Electric Company to Implement a Program to Improve Electric Distribution System Reliability, A. 08-05-023.

1 Cornerstone project focused on three areas: (1) installation of intelligent switches on
2 more than 500 electrical circuits which avoided more than 230,000 customer
3 interruptions as of December 2013,¹⁴ (2) upgrade of the worst-performing rural
4 circuits by installing more than 5,000 sets of fuses and 500 line reclosers on more
5 than 440 circuits, which resulted in a 33 percent reduction in the number of
6 customers experiencing sustained outages from 2010 performance levels, and (3)
7 enhancement of substations and circuit interconnectivity by replacing and upgrading
8 substation equipment to improve operational flexibility and added circuit capacity to
9 maintain and restore service when there is an outage.¹⁵

10 The Cornerstone project was a key component in improving PG&E's system
11 reliability and performance. PG&E's request for \$88.4 million is inadequately
12 supported for routine emergencies given the fact that its system reliability has
13 improved in recent years.

14 ORA asked PG&E whether or not it evaluated or analyzed the investments
15 and resultant improvements made to PG&E's electric distribution system in
16 determining its forecasts of electric distribution expenses. PG&E's answer to ORA's
17 data request was as follows:

18 *...The objective of the Cornerstone project was to improve PG&E's*
19 *electric system by reducing the frequency and duration of outages.*
20 *This technology helps PG&E more quickly identify the location of*
21 *outages and restore service, but does not prevent outages.*
22 *Emergency response crews are still required to further troubleshoot the*
23 *lines and make necessary repairs. Therefore, Cornerstone had no*
24 *material effect on the **Electric Emergency Recovery***
25 *forecasts.*¹⁶*[emphasis added]*

¹⁴ As of December 2013, more than 500 circuits have been enabled with this advanced "self-healing" technology. <http://www.pgecurrents.com/2014/03/06/customers-have-benefitted-as-pge-completes-multi-year-electric-reliability-project/>

¹⁵ <http://www.pgecurrents.com/2014/03/06/customers-have-benefitted-as-pge-completes-multi-year-electric-reliability-project/>

¹⁶ PG&E's response to ORA-PG&E-152-DAO, question 3.

1 PG&E did not state affirmatively or deny that it had evaluated the investments
2 made through the Cornerstone project on system improvements, in forecasting
3 *Electric Emergency Recovery*. PG&E misinterpreted ORA's question regarding the
4 company's forecast of **electric distribution expenses**. ORA **did not** ask whether
5 there is any effect on one expense category, *Electric Emergency Recovery*, within
6 PG&E's entire 2015-2017 electric distribution expense forecast.

7 PG&E's response indicates that it did not take into account the reliability and
8 outage improvements to its electric distribution system in determining its 2017
9 forecast. PG&E's request for \$88.4 million in 2017 is specifically to respond to
10 routine emergencies, which are outages that occur during normal conditions.¹⁷
11 Since PG&E claims that the utility has achieved "record electric reliability" as a result
12 of the Cornerstone project,¹⁸ there should be fewer routine outages occurring within
13 PG&E's system. Reliability is measured by the number (System Average Interruption
14 Frequency Index, or SAIFI) and duration (System Average Interruption Duration
15 Index, or SAIDI) of outages over a period of time. The system has been significantly
16 improved in recent years, therefore, there should be fewer outages associated with
17 routine operations. This should result in a lower forecast for the test year.

18 According to PG&E, the work activities and expenses tracked in MWC BH are
19 for the Company to respond to overhead or underground-related outages during
20 routine conditions. The 2014 recorded expense level should be adequate for PG&E
21 to respond to outages during routine conditions because the Cornerstone project
22 has enabled PG&E's system to experience fewer outages and shorter durations.
23 The Cornerstone project started in 2010 and was completed in 2013. PG&E's
24 ratepayers are just now realizing the system benefits that they funded through this
25 project. The 2014 recorded expense level is a high-end estimate of the funding level
26 for routine emergency management.

¹⁷ Ex. PG&E-4, p. 4-19.

¹⁸ <http://www.pgecurrents.com/2014/03/06/customers-have-benefitted-as-pge-completes-multi-year-electric-reliability-project/>

1 PG&E’s methodology does not take into account the system improvements
2 that ratepayers funded through the Cornerstone project. PG&E’s use of a 3-year
3 (2012-2014) average should be rejected. ORA’s recommendation of \$82 million is
4 based on the 2014 recorded spending and provides sufficient funding.

5 **2. MWC IF—Major Emergency, Electric Distribution**

6 PG&E requests \$46.5 million for MWC IF for 2017. This amount comprises
7 34% of the total \$134.9 million PG&E proposes for EER for 2017. PG&E’s request
8 is \$19.0 million, or 69%, above the 2014 recorded amount of \$27.5 million. PG&E
9 states the work activities tracked in MWC IF are identical to the work activities
10 tracked by MWC BH except that the work is performed in response to a major
11 emergency, instead of overhead and underground outages during normal
12 operations.¹⁹

13 PG&E’s Major Emergency forecast is based on a 5-year average of 2010-
14 2014 recorded costs.²⁰ PG&E’s justification is that the number and severity of major
15 emergencies is unpredictable from year to year, which warrants a longer average
16 period compared to the 3-year average used for Routine Emergency work tracked
17 under MWC BH.²¹

18 ORA accepts PG&E’s forecast of \$46.5 million for Major Emergency
19 expenses. Also, ORA does not dispute PG&E’s proposal to continue the two-way
20 balancing account for expenses categorized in MWC IF.

¹⁹ Ex. PG&E-4, p. 4-18.

²⁰ Ex. PG&E-4, p. 4-20.

²¹ Ex. PG&E-4, p. 4-20.

1 **V. DISTRIBUTION SYSTEM OPERATIONS**

2 PG&E’s Distribution System Operations Department’s work activities include
3 operating the electric distribution grid and performing customer service work such as
4 disconnects and reconnects of service. PG&E requests \$67.1 million in expense for
5 Distribution System Operations for 2017. This amount is allocated to three MWCs:
6 (1) BA, (2) DD, and (3) JV. MWC BA tracks expenses categorized as Electric
7 Distribution Operation Activities, MWC DD tracks expenses to provide Customer
8 Field Service Work, and MWC JV tracks expenses for Technology.²²

9 ORA recommends a total amount of \$57.8 million for Distribution System
10 Operations. The ORA total recommendation is made up of a reduction of \$4.7
11 million to MWC BA and a reduction of \$4.6 million to MWC DD. ORA does not
12 dispute PG&E’s forecast of zero expense for MWC JV.

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

14 The following table summarizes PG&E’s request and ORA’s recommendation
15 for Distribution System Operations expenses.

16 **Table 9-5**
17 **Distribution System Operations**
18 **2010-2014 Recorded and 2017 Expense Forecast**
19 **(In Thousands of Dollars)**

Description	2010	2011	2012	2013	2014	PG&E 2017	ORA 2017
MWC BA	\$28,823	\$27,481	\$30,620	\$36,207	\$30,240	\$35,439	\$30,709
MWC DD	\$19,409	\$19,813	\$19,429	\$22,549	\$23,267	\$31,660	\$27,100
MWC JV	\$-	\$-	\$521	\$983	\$425	\$-	\$-
Total	\$28,232	\$47,294	\$50,570	\$59,559	\$53,932	\$67,099	\$57,809

20 Source: 2010-2014 recorded data and 2017 forecast from Ex. PG&E-4, p. WP 5-9

21 **B. ORA’s Analysis**

22 ORA disagrees with PG&E’s request of \$35.4 million for MWC BA for work
23 activities and/or personnel tracked under Distribution Operators and DCCC Project,

²² Ex. PG&E-4, pp. 5-6 to 5-12.

1 Schedule and Dispatch Personnel and Support Personnel, and Reclassified
2 Personnel.²³ ORA recommends \$30.7 million for MWC BA. ORA disputes PG&E's
3 request of \$31.7 million in expenses for MWC DD and recommends \$27.1 million.
4 This MWC tracks the number of units and unit cost for Swing Service,
5 Disconnects/Reconnects. ORA accepts PG&E's proposal for MWC JV, for which
6 PG&E requests zero funding for 2017.

7 **1. MWC BA—Electric Distribution Operate System**

8 PG&E requests \$35.4 million for MWC BA, which is an increase of \$5.2
9 million above the 2014 recorded costs of \$30.2 million.²⁴ The work activities tracked
10 under MWC BA are related to the operation of the distribution grid. PG&E identifies
11 such activities as: (1) monitoring the distribution system and performing system
12 configuration changes, (2) processing switching applications for work that enables
13 construction to maintain and improve the electric system infrastructure, (3) directing
14 safe response to outage and 911 emergency calls, (4) dispatching and scheduling
15 electric customer service work, and (5) monitoring and programming SCADA
16 devices for remote operation by Distribution Operators.²⁵

17 The expenses of MWC BA are allocated to three cost categories: (1)
18 Distribution Operators and DCCC Project, (2) Schedule and Dispatch Personnel and
19 Support Personnel, and (3) Reclassified Personnel. A breakdown of MWC BA
20 expenses is shown in the table below. ORA disagrees with PG&E's requests in all
21 three cost categories.

22

²³ The specific descriptors of these work activities can be found in the Workpapers (WP) of Ex. PG&E-4, at p. WP, p. 5-11.

²⁴ Ex. PG&E-4, p. 5-7.

²⁵ Ex. PG&E-4, pp. 5-6 to 5-7.

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Table 9-6
MWC BA, Electric Distribution Operate System
PG&E's Request and ORA's Recommendation for 2017
(In Thousands of Nominal Dollars)

MWC BA	PG&E 2014	PG&E 2017	ORA 2017	PG&E>ORA
1) Dist. Operators and DCCC Project	\$22,295	\$19,086*	\$17,586	\$1,500
2) Schedule and Dispatch Personnel and Support Personnel	\$7,688	\$9,537	\$7,688	\$1,849
3) Reclassified Personnel	\$0.257	\$5,007	\$3,867	\$1,140
Escalation	-	\$1,809	\$1,568	\$0.241
TOTAL	\$30,240	\$35,439	\$30,709	\$4,730

6 Source: PG&E-4, WP, p. WP 5-11. *The PG&E 2017 forecast includes a credit of \$5 million for
7 DCCC Operator Reduction and DCC Consolidation Operator Reduction.

8 **a. Distribution Operators and DCCC Project**

9 PG&E proposes \$19.1 million for Distribution Operators and DCCC Project.

10 This amount is made up of various cost elements, and ORA takes issue with a
11 requested increase of \$1.5 million identified as, "Distribution Operator Increase".²⁶

12 According to PG&E, this amount is being requested "Due to the concern over the
13 retention of existing distribution operators..."²⁷ PG&E forecasts an addition of 10
14 operators for the \$1.5 million increase.²⁸

15 PG&E's request for 10 additional operators is based on the consolidation of
16 its distribution control centers (DCC). PG&E plans to consolidate and move all of its
17 distribution operators and dispatchers from the 10 existing DCCs into 3 DCCs and 1
18 dispatch center.²⁹ In anticipation of the DCCC project scheduled for completion in
19 2016, PG&E began increasing the number of Apprentice Distribution Operators to

²⁶ Ex. PG&E-4- WP, p. WP 5-11, line 6.

²⁷ Ex. PG&E-4- WP at p. WP 5-11, line 34, footnote 5.

²⁸ Ex. PG&E-4- WP at p. WP 5-11, line 34, footnote 5.

²⁹ Ex. PG&E-4, p. 5-4.

1 support the transition of consolidating control centers beginning in 2013.³⁰ PG&E
2 has provided retention payments to its Distribution Operators in order to retain a
3 baseline number of operators to allow for a safe level of operation throughout
4 transition process.³¹

5 PG&E's stated concern over employee retention does not support 10
6 additional operators in 2017. PG&E anticipates that the consolidation project will be
7 completed in 2016, and has not proposed any changes to the planned completion
8 date. By 2017, PG&E will have completed the consolidation process, moved its
9 distribution operators from 10 DCCs into 3 DCCs and will need fewer operators, not
10 more. According to PG&E, "Operator headcount will then decrease starting in
11 2017."³² Conversely, PG&E proposes the hiring of 10 more operators over its
12 concern of employee retention.

13 As of October 31, 2015, PG&E has experienced the attrition of one
14 Distribution Operator.³³ PG&E currently has an Operator Apprenticeship program
15 and can backfill Distribution Operator positions as needed. As of October 2015,
16 PG&E has 4.4 apprentices available for backfill.³⁴

17 Therefore, ORA recommends that the Commission reject PG&E's request for
18 an increase of \$1.5 million. ORA's 2017 forecast is \$17.6 million for Distribution
19 Operators and DCCC Project. This amount is \$1.5 million lower than PG&E's
20 request of \$19.1 million.

³⁰ Ex. PG&E-4, p. 5-8.

³¹ PG&E's response to ORA-98, Q. 6 (e).

³² Ex. PG&E-4, p. 5-9.

³³ PG&E's response to ORA-98, Q. 6 (b).

³⁴ PG&E's response to ORA-98, Q. 6 (a).

1 **b. Schedule and Dispatch Personnel and Support**
2 **Personnel**

3 PG&E requests \$9.5 million for 2017, which is an increase of \$1.8 million, or
4 24 percent, above the 2014 recorded amount of \$7.7 million, for Schedule Dispatch
5 Personnel and Support Personnel. The increase is primarily attributable to an
6 increase of \$1.5 million in a subaccount identified as “Support Personnel and
7 Standard Cost Variance”.

8 In 2014, PG&E recorded a credit amount of \$731,000, while forecasting an
9 expense of \$817,000 for 2017, which is an increase of \$1.5 million above the 2014
10 recorded spending of \$7.7 million for this subaccount. The basis of PG&E’s
11 requested increase is stated as, “Additional support costs are labor resources that
12 support operations activities such as IT maintenance and other miscellaneous
13 activities. In recorded years, standard cost variance was recorded in this cost
14 category, which experienced credit amounts in 2013 and 2014. For 2015-2017 the
15 forecast is based on an estimate of anticipated costs required for future support
16 activities.” Simply put, PG&E requests an increase of \$1.5 million without adequate
17 support for an expense item that had previously been credited.

18 PG&E’s explains that the \$1.5 million was based on zero standard cost
19 variance and \$717,000 for “Support Personnel.”³⁵ PG&E states, “These costs...are
20 for labor resources that support operations activities that are categorized under
21 MWC BA such as IT maintenance, performance improvement and other department
22 personnel costs such as meals and lodging...”³⁶ However, PG&E has always had
23 these costs. The utility clarified that these costs are not newly created,³⁷ and that
24 they were calculated at 1.86 percent of the total MWC BA forecast.³⁸ See the table

³⁵ PG&E’s response to ORA-98, Q. 7 (b) and (c).

³⁶ PG&E’s response to ORA-98, Q. 7(a).

³⁷ PG&E’s response to ORA-98, Q. 7(a).

³⁸ PG&E’s response to ORA-98, Q. 7 (c).

1 below for the PG&E recorded 2010 to 2014 and 2017 forecast of Support Personnel
 2 and Standard Cost Variance.

3
 4
 5
 6
 7

Table 9-7
PG&E 2010-2014 Recorded and PG&E's and ORA's 2017 Forecasts
Support Personnel and Cost Variance
(in Thousands of Dollars)

	2010	2011	2012	2013	2014	2017 PG&E	2017 ORA
	RECORDED					FORECAST	
	\$1,479	\$1,162	\$649	(\$515)	(\$731)	\$717	\$0
1.8% of Total MWC BA	\$492	\$473	\$539	\$657	\$557	\$623	n/a

8 In 2013 and 2014, PG&E recorded a credit of \$515,000 and \$731,000
 9 respectively, for the subaccount, Support Personnel and Standard Cost Variance.³⁹
 10 From 2010 to 2012, PG&E recorded expenses ranging from \$649,000 to \$1.5
 11 million.⁴⁰ PG&E's forecast should be rejected because the basis of the utility's
 12 estimate and the methodology used lack adequate support. As shown in the table
 13 above, PG&E recorded credits to this subaccount in 2013 and 2014. For 2017, the
 14 utility forecasts \$1.5 million higher than the 2014 recorded. PG&E's justification for
 15 the increase is that it applied a 1.86 percent increase to the total MWC BA forecast
 16 to derive the 2017 expense amount for this subaccount.

17 ORA recommends the Commission authorize zero cost for this subaccount
 18 because this is more reasonable. The 2010-2014 recorded costs for this
 19 subaccount ranges from a half a million in credit to \$1.5 million in costs, and appear
 20 to be highly unstable. Adopting a zero cost for this subaccount will encourage
 21 PG&E to keep cost variance to a minimum. If PG&E records a credit or incurs an
 22 expense in this subaccount, the account will even out over time. By rejecting
 23 PG&E's request to increase \$1.5 million for Support Personnel and Standard Cost

³⁹ Ex. PG&E-4- WP, p. WP 5-11, line 13.

⁴⁰ PG&E's response to ORA-98, Q. 7(a).

1 Variance, the 2017 forecast for Schedule and Dispatch Personnel and Support
2 Personnel should be \$8.0 million. The ORA recommended amount is \$1.5 million
3 lower than PG&E's forecast of \$9.5 million.

4 **c. Reclassified Personnel**

5 PG&E requests \$5.0 million in expenses for Distribution Operations
6 Engineers, Power Quality Engineers, and SCADA Specialists.⁴¹ This proposal is an
7 increase of \$4.7 million above the 2014 recorded amount of \$300,000.⁴² ORA
8 agrees to PG&E's request of \$2.9 million for the subaccount identified as Distribution
9 Operations Engineers and \$942,000 for the subaccount, Power Quality Engineers.
10 The combined request of \$3.9 million for these subaccounts is not for any new
11 activities. The \$3.9 million was previously charged to a different MWC (FZ), but as
12 of 2015 this will be charged to MWC BA.⁴³ PG&E removed this amount from MWC
13 FZ accordingly, and ORA does not dispute the utility's proposed changes.

14 ORA does dispute PG&E's remaining request of \$1.1 million for SCADA
15 Specialists.⁴⁴ PG&E's proposal is based on 3.5 FTEs and some additional contract
16 support.⁴⁵ According to PG&E, on average the headcount was 10.3 SCADA
17 Specialists assigned to Electric Distribution, Distribution System Operations in
18 2014.⁴⁶ PG&E recorded \$1.9 million in expense for 2014 for the proposed
19 employees. Of this amount, only \$93,000 was charged to MWC BA. Through
20 October 2015, on average PG&E had 9.7 SCADA Specialists assigned to this work

⁴¹ Ex. PG&E-4-WP, p. WP 5-11, line 21.

⁴² Ex. PG&E-4-WP, p. WP 5-11, line 20.

⁴³ Ex. PG&E-4, p. WP 5-12, lines 39 and 40.

⁴⁴ Ex. PG&E-4, p. WP 5-11, line 20.

⁴⁵ Ex. PG&E-4, p. WP 5-12, line 41, footnote 12.

⁴⁶ PG&E's response to ORA -98-DAO, Q. 12.

1 program.⁴⁷ The expenses incurred for these SCADA Specialists have been
2 allocated to 45 capital and expense accounts, including MWC BA, from 2012 to
3 October 2015.⁴⁸ By October of 2015, PG&E has shifted the charges from 49% of
4 the 45 accounts to MWC BA.⁴⁹ PG&E plans to charge the time of 3.5 SCADA
5 Specialists in MWC BA beginning in 2016.

6 PG&E's proposal to charge the time of 3.5 SCADA Specialists to MWC BA,
7 instead of allocating it to 45 separate accounts, does not constitute a new expense
8 item for the test year. PG&E has been receiving funding for the ongoing
9 maintenance expense of these SCADA Specialists, and should not be authorized
10 any additional funding. Therefore, ORA recommends the Commission adopt \$3.9
11 million as the 2017 forecast for Reclassified Personnel. This amount is the 2014
12 recorded expense without the PG&E requested increase for the Test Year.

13 Based on the discussion above, ORA recommends a total of \$30.7 million in
14 total for MWC BA. This total is \$4.7 million lower than PG&E's forecast of \$35.4
15 million. ORA's recommendation is based on a lower expense level for the
16 Distribution Operators and DCCC Project of \$17.6 million, instead of the PG&E
17 estimate of \$19.1 million. ORA also forecasts a lower expense amount for Schedule
18 and Dispatch Personnel and Support Personnel. ORA's recommendation of \$7.7
19 million for this subaccount is \$1.8 million lower than PG&E's request of \$9.5 million.
20 Lastly, ORA recommends \$3.9 million for the subaccount Reclassified Personnel, an
21 amount \$1.1 million lower than PG&E's forecast of \$5.0 million.

22 **2. MWC DD—Provide Field Service**

23 PG&E requests \$31.7 million for MWC DD for 2017.⁵⁰ This amount is \$8.4
24 million higher than the 2014 recorded spending of \$23.3 million.⁵¹ ORA disagrees

⁴⁷ PG&E's response to ORA -98-DAO, Q. 12.

⁴⁸ PG&E's response to ORA-98-DAO, Q. 12.

⁴⁹ PG&E's response to ORA-98-DAO, Q. 12.

⁵⁰ Ex. PG&E-4, p. 5-20.

1 with PG&E's request and recommends \$27.1 million for MWC DD. ORA's proposal
2 is \$3.8 million above the 2014 recorded.

3 The total expenses for MWC DD are allocated to 2 subaccounts, (1) Outages
4 on Customer Equipment and (2) Swing Service, Disconnects/Reconnects. ORA's
5 forecast for 2017 is based on accepting PG&E's proposal of \$9.7 million for Outages
6 on Customer Equipment, and \$17.4 million, a reduction of \$4.6 million, for Swing
7 Service, Disconnects/Reconnects

8 PG&E uses MWC DD to track expenses for customer field service work such
9 as addressing: (1) partial or complete outages related to customer equipment, (2)
10 transfer of service, (3) electric service upgrades, and (4) temporary disconnections
11 or reconnections of service.⁵² According to PG&E, the main driver for the requested
12 increase is PG&E's forecast of increased volume of new business work changes
13 correlated to an assumed increase in work related to electric vehicles and distributed
14 generation, leading to a higher level of disconnect and reconnect work.⁵³

15 PG&E's 2017 forecast of \$31.7 million is based on an estimate of no increase
16 in expense to address Outages on Customer Equipment and an increase of 45
17 percent in expense to address Swing Service and Disconnects/Reconnects. PG&E
18 estimates an increase of 61 percent in the number of requests for Swing Service and
19 Disconnect/Reconnect work, with a forecast of 78,408 customer requests for 2017
20 versus 48,664 requests, received in 2014.⁵⁴

21 According to PG&E, prior to 2013 the utility did not track the number of units
22 of work for Swing Service and Disconnects/Reconnects because it was managed by

(continued from previous page)

⁵¹ PG&E's response to ORA-98-DAO, Q. 12.

⁵² Ex. PG&E-4, pp. 5-10 to 5-11.

⁵³ Ex. PG&E-4, p. 5-12.

⁵⁴ Ex. PG&E-4-WP, p. WP 5-14, line 9. PG&E estimates 78,408 units of work compared to 48,664 units of work recorded for 2014.

1 Customer Care, which combined both gas and electric Lines of Business.⁵⁵ Also,
2 PG&E had recorded the number of work units from January to September of 2014.
3 There is very little recorded information to perform any reliable forecast in the
4 number of units of work for 2017 based on one and a half years of recorded data.
5 Yet, PG&E's forecast assumes an increase of 61 percent in the number of customer
6 requests.

7 PG&E's forecast is also linked to the expense the utility proposes for MWC
8 EV, which tracks the number of service inquiries for new connections, existing
9 connections, Standard Net Energy Metering Service (SNEM), and plug-in electric
10 vehicles.⁵⁶ PG&E states that historically the forecast of MWC DD assumed that
11 activities in this area were relatively flat.⁵⁷ However, PG&E claims it has identified a
12 correlation between new business work and the number of disconnects and
13 reconnects charged to MWC DD.⁵⁸

14 ORA disputes PG&E's estimate of 60,223 requests or an increase of 24%
15 above the 2014 recorded number of 48,664, as the base forecast for 2017. PG&E's
16 base level is for typical customer requests as tracked by MWC DD. ORA does not
17 disagree with the correlation with New Business, but with the specific percentage
18 increase. PG&E requests an additional 14 percent increase above the proposed
19 base year expense increase for typical level of work tracked by MWC DD. PG&E's
20 justification is, "The current forecast of NB [New Business] activity projects a 14
21 percent increase in NB connects (combined residential and non-residential
22 connects) from 2014-2017."⁵⁹

⁵⁵ Ex. PG&E-4-WP, p. WP 5-14, footnote 6, line 30.

⁵⁶ Ex. PG&E-4, p. 5-12.

⁵⁷ Ex. PG&E-4, p. 5-12.

⁵⁸ Ex. PG&E-4, p. 5-12.

⁵⁹ Ex. PG&E-4, page 17-20, lines 4-5.

1 The number of New Business correlated requests PG&E proposed for 2017
2 equals an increase of 30 percent, and not 14 percent as stated in the New Business
3 area of its testimony.⁶⁰ PG&E proposes this 30 percent increase on top of the 24
4 percent increase projected for typical customer requests tracked by MWC DD. This
5 request is excessive and not adequately supported. PG&E's forecast for MWC DD
6 does not correlate to the requested 14 percent increase in NB connections as it
7 proposes.

8 In Ex. ORA-4 (Billings, Sales and Other Operating Revenues), ORA proposes
9 an 11 percent, instead of 14 percent increase, in NB connects, for 2017. ORA
10 recommends using the 11 percent increase in NB to forecast the number of Swing
11 Service, Disconnects/Reconnects because it is more reasonable. ORA's
12 recommendation is based on: (1) accepting PG&E's proposed increase of 24
13 percent in the number of base units, (2) an increase of 11 percent, and not 14
14 percent, in NB connects, and (3) and PG&E's 2017 unit cost of \$259.60. Using
15 ORA's proposed increase in NB connections combined with the PG&E proposed
16 increase in the base number of requests, ORA's estimate is lower than PG&E's.
17 While PG&E requests \$20.4 million in expenses to process 78,408 customer
18 requests,⁶¹ ORA recommends \$17.4 million to process a total of 66,848 requests for
19 Swing Service, Disconnects/Reconnects. ORA's recommendation of \$17.4 million is
20 \$3 million lower than PG&E's proposed \$20.4 million.

21 The total ORA recommendation for MWC DD is \$27.1 million, an amount \$4.6
22 million lower than PG&E's forecast of \$31.7 million. ORA's forecast is based on a
23 reduction in expense for fewer units of work estimated for the subaccount Swing
24 Service, Disconnects/Reconnects due to a lower level of New Business growth.

⁶⁰ Ex. PG&E-4, p. 17-20, line 4.

⁶¹ Ex. PG&E-4-WP, p. 5-14, line 11.

1 **3. MWC JV—Maintain IT Applications &**
2 **Infrastructure**

3 PG&E requests zero funding for MWC JV for 2017.⁶² ORA accepts PG&E’s
4 proposal of zero expense for MWC JV for 2017.

5 **VI. ELECTRIC DISTRIBUTION MAINTENANCE**

6 PG&E’s Electric Distribution Maintenance (EDM) work activities focus on
7 inspection of facilities and corrective maintenance of facilities identified for repair or
8 replacement. Each year, on average, PG&E patrols 1.23 million overhead and
9 236,000 underground locations, performs detailed inspections of 472,000 overhead
10 and 131,000 underground locations, and performs 23,000 equipment inspections.⁶³
11 PG&E performs approximately 3,600 maintenance work units during an average
12 month as a result of its patrols and inspections.⁶⁴

13 For 2017, PG&E requests \$169.8 million for operations and maintenance for
14 the EDM Program. This amount is \$19.4 million, or 13 percent, higher than 2014
15 recorded expenses of \$150.4 million. PG&E claims that its 2017 forecast for the
16 EDM Program is higher than recorded costs primarily due to a higher level of
17 preventive maintenance activity related to regulatory requirements, higher than
18 historical streetlight spending, and a new surge arrestor grounding program
19 designed to mitigate a potential public safety issue identified by PG&E.⁶⁵

20 PG&E’s EDM expense request is allocated to 5 MWCs. ORA’s forecast for
21 EDM expense is \$164.5 million for 2017. ORA proposes a lower forecast than
22 PG&E for MWC KA.

⁶² Ex. PG&E-4, WP, p. WP 5-9.

⁶³ Ex. PG&E-4, p. 6-1.

⁶⁴ Ex. PG&E-4, p. 6-1.

⁶⁵ Ex. PG&E-4, p. 6-3.

1 of Priority F tags—notifications for non-compelling conditions⁶⁸ that do not pose an
2 outage or reliability risk, but must be corrected for regulatory compliance reasons.⁶⁹

3 The other driver for the increase in expense is due to the work activities of the Surge
4 Arrestor Grounding program.

5 ORA recommends a forecast of \$70.2 million for MWC KA for 2017 instead of
6 PG&E’s forecast of \$75.5 million. ORA’s recommendation is based on an
7 adjustment of \$5.3 million for repairs of tags generated from Overhead.

8 **a. Priority F Tags**

9 The work activities that PG&E identifies as Priority F tags, and for which the
10 utility requests an increase in funding for 2017, are not new. PG&E states that the
11 maintenance conditions covered by Priority F tags are subject to the same
12 regulations as PG&E’s other maintenance notifications.⁷⁰ PG&E claims that it has
13 always performed maintenance work to maintain regulatory compliance.

14 According to PG&E, Priority F tags were generated in 2010.⁷¹ PG&E claims
15 that these are new work activities for this rate case cycle and that the 2014 test year
16 forecast did not include any budget for completion of Priority F tags.⁷² This is not
17 the case. In PG&E’s testimony in the 2014 GRC, the utility requested funding to
18 prioritize and correct abnormal conditions identified by its Inspectors as part of the
19 work activities called Overhead Notifications.⁷³ The work activities included the

⁶⁸ PG&E defines “non-compelling conditions” as either (1) an abnormal condition that is not sufficiently severe to require corrective maintenance within the next 12 months, or (2) a condition that does not impact reliability or safety but which must be corrected in order to comply with regulatory guidance (Priority-F tag). PG&E’s response to ORA- 102, Q. 1.

⁶⁹ Id.

⁷⁰ PG&E’s response to ORA-102, Q.2.

⁷¹ Ex. PG&E-4, p. 6-27, footnote 22.

⁷² Ex. PG&E4, p. 6-27, footnote 22.

⁷³ PG&E 2014 GRC, Ex. PG&E-4, Chapter 5, pp. 5-7 to 5-8 and p. 5-18.

1 maintenance and corrections of tags identified as having “non-compelling conditions
 2 that pose no safety or reliability risk”.⁷⁴ This is the same definition PG&E uses to
 3 describe and define “Priority F” tags in this GRC.⁷⁵ The work activities of correcting
 4 and maintaining tags is the same as in previous years, the only difference is the
 5 naming of the tags. Prior to 2010 these tags were identified as Priority P tags and
 6 were included in the work and expense of other work scheduled in a particular
 7 area.⁷⁶ According to PG&E, the Priority P tags were a significant component of
 8 PG&E’s backlog of maintenance tags in the 2014 GRC and that PG&E completed
 9 working down in 2014. PG&E has been repairing Priority F tags each year
 10 beginning in 2010.

11 Table 9-9 below provides the number of Priority F Tags repaired/maintained
 12 each year and expenses incurred.

13 **Table 9-9**
 14 **PG&E’s Historical 2010-2015 and 2017 Forecast of Priority F Tags**

	Recorded						PG&E	ORA
	2010	2011	2012	2013	2014	2015	2017	2017
# F-tags	6,303	7,484	10,121	12,444	1,973	5,303 (Oct)	12,309	
Total= B+E+F tags	10,906	14,133	20,204	24,491	12,359	17,363 (Oct)	23,911 ⁷⁷	
% of F-tags to Total	58%	53%	50%	51%	16%	31%	51%	
Total Tags Expense ('000s)	\$14,605	\$19,790	\$23,802	\$31,668	\$17,673	n/a	\$29,707	\$24,381
Total MWC KA	\$33,606	\$41,482	\$52,471	\$57,408	\$59,334	\$62,511	\$75,515	\$70,189

⁷⁴ PG&E 2014 GRC, Ex. PG&E-4, Chapter 5, pp. 5-7 to 5-8 and p. 5-18.

⁷⁵ Ex. PG&E-4, pp. 6-26 to 6-27.

⁷⁶ PG&E’s response to ORA data request ORA -102, Q. 2 and Exhibit PG&E-4, p. 6-27, footnote 22.

⁷⁷ The PG&E’s number of F-tags in the 2017 forecast was determined by ORA using the number of F-tags proposed for 2015, which was calculated by dividing the PG&E estimated cost of \$5.156 million by the PG&E unit cost of \$1,286 for a total of 4,009 units.

1 PG&E has been repairing more tags identified from overhead inspections in
2 2013 and in 2014 compared to the planned units.⁷⁸ According to PG&E, as of
3 September 30, 2015, the utility has no current maintenance notifications that have
4 not yet been completed.

5 The completion of tags started in 2010 and is part of the operations and
6 maintenance of activities under the EDM program. The number of tags completed
7 and expenses incurred from 2010 to 2015 can be seen in Table 9-9 above. With the
8 exception of 2014, the 2010-2013 recorded data shows that Priority-F tags make up
9 approximately half of all the tags worked. PG&E's forecast for 2017 is no different.
10 PG&E forecasts that 51 percent of Priority-F tags will make up the tags to be
11 completed in 2017.⁷⁹

12 The PG&E 2017 forecast for the repair of tags generated from Overhead
13 Notifications will be similar to what PG&E has been doing since 2010. ORA
14 recommends using the 3-year average of 2012-2014 recorded expense amount of
15 \$24.4 million as the 2017 expense forecast for the repair work of all tags, including
16 Priority-F tags, generated through Overhead Notifications. The ORA
17 recommendation compares closely with the expense amount of \$23.6 million if one
18 were to use the 3-year average number of tags (19,018 tags), and apply the PG&E's
19 2017 unit cost forecast of \$1,242. ORA's recommendation of \$24.4 million is \$5.3
20 million lower than PG&E's proposal of \$29.7 million.

21 **b. Surge Arrestor Grounding (SAG) Program**

22 PG&E requests \$20.5 million for the SAG program to install separate ground
23 wires and ground rods for the surge arrestors that share a ground wire with the
24 transformers.⁸⁰ In 2014, the company spent \$14.2 million on the SAG program.⁸¹

⁷⁸ PG&E's response to ORA-47, Q. 2, att. 1.

⁷⁹ Ex. PG&E-4-WP, p. WP 6-9.

⁸⁰ Ex. PG&E-4-WP, p. WP 6-9.

⁸¹ Ex. PG&E-4-WP, p. WP 6-9.

1 PG&E has determined that this proposal will lessen the risk of equipment failure
 2 resulting in customer property damage.⁸² ORA does not dispute PG&E’s request of
 3 \$20.5 million for the SAG program for 2017. However, ORA recommends that the
 4 Commission require PG&E to report and verify that the funding was dedicated to
 5 correct the 19,032 locations PG&E claims it has identified.

6 The total ORA recommendation for MWC KA is \$70.2 million and not \$75.5
 7 million as PG&E is requesting for 2017. ORA’s 2017 forecast is lower than PG&E’s
 8 request because of ORA’s adjustment of \$5.3 million to PG&E’s expense request for
 9 Overhead Notifications and Priority F tags as discussed in the previous section.

10 **VII. VEGETATION MANAGEMENT**

11 PG&E’s Vegetation Management program consists of routine tree work,
 12 vegetation control, quality assurance, public education, environmental compliance,
 13 and fire risk reduction. These work activities are also performed as part of PG&E’s
 14 compliance requirements with the CPUC’s General Order 95, Rules 35 and 37, and
 15 the California Public Resources Codes 4293 and 4293.⁸³

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

17 The following table summarizes PG&E’s request and ORA’s recommendation
 18 for Vegetation Management expenses.

19 **Table 9-10**
 20 **Vegetation Management**
 21 **2010-2014 Recorded and 2017 Expense Forecast**
 22 **(In Thousands of Dollars)**

Description	2010	2011	2012	2013	2014	PG&E 2017	ORA 2017
MWC HN	\$150,202	\$161,567	\$161,441	\$161,559	\$189,673	\$200,000	\$200,000
Total	\$150,202	\$161,567	\$161,441	\$161,559	\$189,673	\$200,000	\$200,000

23 Source: 2010-2014 recorded data and 2017 forecast from Ex. PG&E-4, p. WP 7-1.

⁸² Ex. PG&E-4, p. 6-35.

⁸³ Ex. PG&E-4, p. 7-2.

1 **IX. ELECTRIC DISTRIBUTION RELIABILITY**

2 PG&E did not propose any O&M expense for this work category.

3 **X. DISTRIBUTION AUTOMATION AND SYSTEM PROTECTION**

4 PG&E’s Distribution Automation and System Protection program consists of
5 the installation, upgrade, and replacement of remotely controlled automation and
6 protection equipment in both distribution substations and on feeder circuits.⁸⁵ The
7 expenses for the following activities are booked into MWC HX: (1) Automation
8 Engineering Support, (2) Protection Engineering Support, (3) and SCADA Specialist
9 support.

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 Distribution Automation and System Protection expenses.

13 **Table 9-12**
14 **Distribution Automation and System Protection**
15 **2010-2014 Recorded and 2017 Expense Forecast**
16 **(In Thousands of Dollars)**

Description	2010	2011	2012	2013	2014	PG&E 2017	ORA 2017
MWC HX	\$2,166	\$2,081	\$2,797	\$1,904	\$1,913	\$2,114	\$2,114
Total	\$2,166	\$2,081	\$2,797	\$1,904	\$1,913	\$2,114	\$2,114

17 Source: 2010-2014 recorded data and 2017 forecast from Ex. PG&E-4, p. WP 10-1.

18 **B. ORA’s Analysis**

19 PG&E requests \$2.1 million for 2017 for MWC HX. After reviewing PG&E’s
20 testimony, workpapers, and discovery responses pertaining to this area, ORA does
21 not take issue with PG&E’s request for MWC HX.

⁸⁵ Ex. PG&E-4, page 10-1.

1 **XI. UNDERGROUND ASSET MANAGEMENT**

2 PG&E did not propose any O&M expense for this work program.

3 **XII. SUBSTATION ASSET MANAGEMENT**

4 PG&E’s Substation Asset Management program provides preventive
5 maintenance and corrective maintenance for substations.

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

7 The following table summarizes PG&E’s request and ORA’s recommendation
8 for Substation Asset Management expenses.

9 **Table 9-13**
10 **Substation Asset Management**
11 **2010-2014 Recorded and 2017 Expense Forecast**
12 **(In Thousands of Dollars)**

Description	2010	2011	2012	2013	2014	PG&E 2017	ORA 2017
MWC GC	\$29,677	\$33,076	\$38,972	\$37,739	\$41,751	\$42,035	\$42,035
Total	\$29,677	\$33,076	\$38,972	\$37,739	\$41,751	\$42,035	\$42,035

13 Source: 2010-2014 recorded data and 2017 forecast from Ex. PG&E-4-WP, p. WP 12-1.

14 **B. ORA’s Analysis**

15 After reviewing PG&E’s testimony, workpapers, and discovery responses
16 pertaining to this area, ORA does not dispute PG&E’s forecast of \$42.0 million for
17 MWC GC for 2017.

18

1 **XIII. ELECTRIC DISTRIBUTION CAPACITY**

2 PG&E’s Electric Distribution Capacity program manages PG&E’s substation
3 and distribution line investments necessary to meet customer demand.⁸⁶

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

5 The following table summarizes PG&E’s request and ORA’s recommendation
6 for Electric Distribution Capacity expenses.

7 **Table 9-14**
8 **Electric Distribution Capacity**
9 **2010-2014 Recorded and 2017 Expense Forecast**
10 **(In Thousands of Dollars)**

Description	2010	2011	2012	2013	2014	PG&E 2017	ORA 2017
MWC JV	\$-	\$-	\$-	\$-	\$-	\$1,196	\$0
MWC BA	\$-	\$-	\$-	\$-	\$-	\$370	\$0
Total	\$-	\$-	\$-	\$-	\$-	\$1,566	\$0

11 Source: 2010-2014 data and 2017 forecast from Ex. PG&E-4-WP, p. WP 13-97.

12 **B. ORA’s Analysis**

13 For 2017, PG&E requests the Commission provide funding for the utility to
14 support the new Volt/VAR Optimization (VVO) Program. In Ex. ORA-10 (Electric
15 Distribution Capital Expenditures, Part 1 of 2), ORA recommends zero capital
16 funding for the VVO program.

17 PG&E requests \$1.2 million in expense, as tracked by MWC JV, and
18 \$370,000 in expense, as tracked by MWC BA, to support the VVO program. The
19 expenses for MWCs JV and BA are tied to the VVO program as support expenses.
20 Since in Ex. ORA-10, ORA opposes PG&E’s 2017 capital expenditure request for
21 the VVO program, correspondingly ORA recommends no expenses for MWCs JV
22 and BA.

⁸⁶ Ex. PG&E-4, p. 13-1.

1 **XIV. ELECTRIC DISTRIBUTION ENGINEERING AND PLANNING**

2 PG&E’s Electric Distribution Engineering and Planning supports a variety of
3 asset management and operating activities such as planning, designing, and
4 operating PG&E’s electric distribution system.⁸⁷ The expenses for the work
5 activities of Engineering and Planning are tracked in MWC FZ.

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

7 The following table summarizes PG&E’s request and ORA’s recommendation
8 for Electric Distribution Engineering and Planning expenses.

9 **Table 9-15**
10 **Electric Distribution Engineering and Planning**
11 **2010-2014 Recorded and 2017 Expense Forecast**
12 **(In Thousands of Dollars)**

Description	2010	2011	2012	2013	2014	PG&E 2017	ORA 2017
MWC FZ	\$19,789	\$19,603	\$21,592	\$23,552	\$23,660	\$21,590	\$21,590
Total	\$19,789	\$19,603	\$21,592	\$23,552	\$23,660	\$21,590	\$21,590

13 Source: 2010-2014 recorded data and 2017 forecast from Ex. PG&E-4-WP, p. WP 14-1.

14 **B. ORA’s Analysis**

15 After reviewing PG&E’s testimony, workpapers, and discovery responses
16 pertaining to this area, ORA does not dispute PG&E’s proposed expense amount of
17 \$21.6 million for 2017.

18 **XV. ELECTRIC DISTRIBUTION TECHNOLOGY**

19 PG&E’s Electric Distribution Technology captures costs for the technology,
20 devices, controls, and associated process changes need to ensure safe, reliable,
21 cost-effective operation of the electric distribution system.⁸⁸ The expenses for this
22 department are tracked in MWC JV.

⁸⁷ Ex. PG&E-4, p. 14-1.

⁸⁸ Ex. PG&E-4, p. 15-1.

1 **B. ORA’s Analysis**

2 PG&E request \$10.6 million in funding to maintain its Electric Distribution
3 Mapping and Records (EDMR) and Information Management (RIM) programs.⁹⁴
4 This amount is \$7 million higher than the recorded spending of \$3.6 million. In 2015,
5 PG&E spent \$6.4 million on work activities tracked by MWC GE.

6 ORA takes issue with PG&E’s request because PG&E is already receiving in
7 rates the funding to support the EDMR and RIM programs. Therefore, ORA
8 recommends zero funding for 2017.

9 **1. MWC GE—Electric Distribution Mapping**

10 PG&E states the key objectives of the EDMR and RIM programs are to
11 systematically maintain complete and accurate records, maps and asset data to
12 support the utility’s ability to provide safe and reliable electric service.⁹⁵

13 In PG&E’s 2014 GRC application, the Company received \$31.4 million in
14 expense for the projects identified under the EDMR and RIM programs that it now
15 requests in the 2017 GRC, and in the same MWC GE.⁹⁶ The company spent \$3.5
16 million in 2014⁹⁷ for the following projects: (1) Field Asset Inventory (FAI), (2)
17 Convert Paper Records (CPR), (3) and Migrate Electronic Records (MER).⁹⁸ All
18 three projects were delayed. In this GRC, PG&E requests funding again for the
19 Field Asset Inventory project for the same activities, but with a reduced scope,
20 identified in the last GRC.

21

⁹⁴ Ex. PG&E-4, p. 16-2.

⁹⁵ Ex. PG&E-4, p. 16-2.

⁹⁶ PG&E’s response to ORA-82, Q. 1.

⁹⁷ PG&E’s response to ORA-82, Q. 1.

⁹⁸ PG&E’s response to ORA-82, Q. 2.

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**Table 9-18
PG&E's Expenses for Electric Distribution Mapping and Records Management
Recorded 2014 and September 2015
(in Thousands of Dollars)**

	2014	2015
	Recorded	Jan - Sept Recorded
Base Mapping and Records Management	\$ 3,043	\$ 2,498
**Records Quality Assurance Program		
Field Asset Inventory	\$ 200	\$ 210
Convert Paper Based Records to Electronic Format	\$ 35	\$ 195
Update Electronic Records to Standard Format	\$ -	\$ 367
Additional Records Initiatives not included in 2014 GRC Forecast		
- Records and Information Management Labor		\$ 616
- Field Records Inventory	\$ 150	\$ 405
- Business Process Reviews	\$ 110	
Total	\$ 3,538	\$ 4,291

***Records Quality Assurance Program costs were included in Base Mapping costs and not tracked separately in PG&E's financial system. Although not tracked separately, the actual costs incurred for the Records Quality Assurance Program were associated with labor associated with two positions and are estimated to be \$411,000 in 2014 and \$316,500 through September in 2015.*

6

7 Source: PG&E's response to ORA-82, Q.2.

8 In PG&E's 2014 GRC, the utility forecasted \$10 million for a Field Asset
9 Inventory (FAI) project to identify discrepancies between actual conditions in the field
10 and asset records.⁹⁹ As can be seen in Table 9-18 above, PG&E spent \$200,000 on
11 the FAI project in 2014. PG&E delayed implementing the FAI project although it
12 received the full funding amount of \$10 million each year from 2014 to 2016. PG&E
13 does not plan to implement the FAI project until 2016, and will only inventory a
14 portion of the assets instead of all assets in its system as it had proposed in its last
15 GRC.¹⁰⁰ The implementation of the FAI project is also contingent on the future
16 completion of another project, the ED/AM GIS database.

17 PG&E also requested and received in rates "...\$14.2 million to convert paper
18 records to electronic format to improve accessibility from any location, to protect

⁹⁹ D.14-08-032, p. 158.

¹⁰⁰ PG&E's response to ORA data request ORA-82, Q. 2.

1 against physical damage, and to provide for electronic searching.” As can be seen
2 in Table 9-18 above, PG&E did not spend any of its authorized funding on the
3 Conversion of Paper Records to Electronic Format project in 2014. The utility spent
4 \$95,000 on this project as of September 2015.

5 PG&E requests an additional \$1.6 million for Records and Information
6 Management labor.¹⁰¹ PG&E claims that the requested funding is for the following
7 projects: FAI, Field Records Inventory, Convert Paper Records (CPR) and Migrate
8 Electronic Records (MER), and to manage other business processes.¹⁰² The CPR
9 and MER projects requested by PG&E in the 2014 GRC were also delayed.

10 PG&E should not be authorized any funding in 2017 for MWC GE because it
11 is already recovering in revenues \$31.4 million annually, and \$94.2 million in total,
12 from 2014 to 2016.¹⁰³ If PG&E decides to deploy any of these projects in the 2017
13 GRC cycle, there should be enough funding embedded in rates for the company to
14 support these projects. ORA recommends no funding for MWC GE.

15 **XVII. NEW BUSINESS and WORK AT THE REQUEST OF OTHERS**

16 PG&E’s New Business and Work at the Request of Others (NB/WRO)
17 program tracks expenses to install electric infrastructure required to connect new
18 customers to PG&E’s distribution system and to accommodate increased load from
19 existing customers. The NB/WRO program also provides for the relocation of
20 PG&E’s existing electric facilities, including undergrounding of existing overhead
21 electric facilities, at the request of individuals and government agencies pursuant to
22 the provisions of its Electric Tariff Rule 20B and Rule 20C. The expenses for these
23 work activities are tracked in MWCs EV and EW.

¹⁰¹ Ex. PG&E-4, WP, p. WP 16-6, line 4.

¹⁰² Ex. PG&E-4, WP, p. WP 16-6, footnote (1).

¹⁰³ D.14-08-032, p. 158, p. 161, and PG&E’s response to ORA data request ORA-82, Q.1

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

2 The following table summarizes PG&E’s request and ORA’s recommendation
3 for New Business and Work at the Request of Others expenses.

4 **Table 9-19**
5 **New Business and Work at the Request of Others**
6 **2010-2014 Recorded and 2017 Expense Forecast**
7 **(In Thousands of Dollars)**

Description	2010	2011	2012	2013	2014	PG&E 2017	ORA 2017
MWC EV	\$7,199	\$6,194	\$6,840	\$8,592	\$9,095	\$14,639	\$11,298
MWC EW	\$7,019	\$8,993	\$14,864	\$14,655	\$15,014	\$17,849	\$17,849
Total	\$14,218	\$15,187	\$21,704	\$23,248	\$24,109	\$32,488	\$29,147

8 Source: 2010-2014 recorded data and 2017 forecast from Ex. PG&E-4, p. 17-1.

9 **B. ORA’s Analysis**

10 ORA does not disagree with PG&E’s expense request for MWC EW. ORA
11 disputes PG&E’s proposed \$14.6 million for MWC EV.¹⁰⁴ This PG&E request is
12 \$5.5 million above the 2014 recorded spending for MWC EV. ORA recommends
13 \$17.8 million for MWC EW and \$11.3 million for MWC EV, for a total of \$29.1 million.
14 The total ORA recommended amount is \$3.3 million lower than PG&E’s forecast of
15 \$32.5 million.

16 **1. MWC EV—Manage Service Inquiries**

17 PG&E requests \$14.6 million in expense for MWC EV. This account captures
18 expenses associated with processing customer applications for new gas and electric
19 services and with coordinating requests from existing customers for additional load
20 and re-arrangements on existing services.¹⁰⁵ In 2014, PG&E spent \$9.1 million on
21 work activities tracked in MWC EV.

22 PG&E’s request is broken down into 4 separate subaccounts: (1) EVA-
23 Service Inquiry, (2) EVB-Ok to Serve Routine, (3) EVB-Ok to Serve SNEM

¹⁰⁴ Ex. PG&E-4, p. 17-3.

¹⁰⁵ Ex. PG&E-4, p. 17-5.

1 (Standard Net Energy Metering), and (4) Ok to Serve PEV. The table below shows
 2 the 2010 to 2014 recorded expenses and 2017 forecasts for the 4 subaccounts.

3 **Table 9-20**
 4 **MWC EV New Business Service Inquiry**
 5 **PG&E’s 2010-2014 Recorded and 2017 Forecast**
 6 **(in Thousands of Dollars)**
 7

MWC EV	2010	2011	2012	2013	2014	PG&E 2017	ORA 2017
EVA-Service Inquiry	\$2,488	\$2,823	\$2,569	\$2,961	\$3,318	\$4,371	\$4,371
EVB-OK to Serve Routine	\$4,580	\$3,015	\$3,504	\$4,083	\$4,174	\$4,405	\$4,405
EVB-OK to Serve SNEM	\$129	\$199	\$335	\$792	\$1,010	\$2,446	\$1,481
EVB-Ok to Serve PEV	\$-	\$158	\$431	\$756	\$602	\$2,669	\$1,041
TOTAL MWC EV	\$7,199	\$6,194	\$6,840	\$8,592	\$9,095	\$14,639	\$11,298

8 Source: Ex. PG&E-4, WP, p. WP 17-10.

9 As shown in Table 9-20 above, the two subaccounts with high increases over
 10 the base year levels are EVB-OK to Serve SNEM and EVB-OK to Serve PEV. ORA
 11 accepts PG&E’s forecasts for EVA-Service Inquiry and EVB-OK to Serve Routine.
 12 ORA disagrees with PG&E’s proposals for subaccounts MAT EVB—OK to Serve
 13 SNEM and OK to Serve Plug-In Electric Vehicles (PEVs).

14 **a. MAT EVB—OK to Serve SNEM**

15 PG&E claims it will be receiving an increasing volume of requests for
 16 electrical panel upgrades and rearrangements due to an increase forecast of small
 17 solar installations, and these requests must be reviewed by PG&E.¹⁰⁶ PG&E
 18 requests \$2.4 million in expense to accommodate the interconnection of these new

¹⁰⁶ Ex. PG&E-4, p. 17-7.

1 generating facilities.¹⁰⁷ This amount is \$1.4 million, or 114 percent, higher than the
2 2014 recorded expense amount of \$1.0 million.¹⁰⁸

3 PG&E forecasts it will receive and process 8,239 inquiries about SNEM in
4 2017. The 2017 forecast of 8,239 SNEM inquiries is 4,755 (or 136 percent), higher
5 than the 2014 recorded number of 3,484 inquiries.¹⁰⁹ ORA disagrees with PG&E's
6 excessive forecast and proposes a total of 4,731 SNEM inquiries and \$1.5 million,
7 and not PG&E's forecast of \$2.4 million, in expense for SNEM for 2017.

8 ORA's forecast of \$1.5 million is based on using the PG&E 2010-2015
9 recorded (annualized from the number of applications received as of September)
10 number of SNEM interconnection applications received and trending it to 2017.
11 ORA's estimate yields a total of 56,079 SNEM interconnection applications. ORA
12 then uses PG&E's ratio of the number of SNEM inquiries as recorded in subaccount
13 EVB—Okay to Serve SNEM to the total SNEM interconnection applications, which is
14 8 percent. This yields an ORA forecast of 4,731 SNEM EVB inquiries for 2017.
15 ORA does not dispute the unit cost PG&E proposes for SNEM EVB, which is \$313
16 per inquiry. By multiplying the \$313 unit cost to ORA's forecast of 4,731 SNEM
17 inquiries, the result is an expense forecast of \$1.5 million.

18 ORA's recommendation should be adopted because it provides for a
19 reasonable increase from the base year to the test year. Similarly, PG&E's forecast
20 for Electric Generation Interconnections (EGI), which SNEM is based on, is
21 reasonable. The PG&E estimated number of SNEM inquiries for 2017 is tied to its
22 EGI forecast. PG&E forecasts a modest increase for EGI work activities, as tracked
23 under MWC EW-EGI. PG&E's EGI expense forecast is \$10.2 million, or \$941,000,
24 above its recorded spending of \$9.1 million.¹¹⁰

¹⁰⁷ Ex. PG&E-4-WP, p. WP-17-13, line 10.

¹⁰⁸ Ex. PG&E-4-WP, p. WP-17-13, line 10.

¹⁰⁹ Ex. PG&E-4-WP, p. WP-17-13, line 10, line 6.

¹¹⁰ Ex. PG&E-4-WP, p. 17-18, line 2.

1 **b. MAT EVB—OK to Serve Plug-In Electric**
2 **Vehicles (PEV)**

3 PG&E requests \$2.4 million for MAT EVB—PEV. PG&E states its
4 methodology is based on looking at the number of PEVs forecast for all of California
5 by two private firms called ICF International, and Energy + Environmental
6 Economics. PG&E combined two scenarios from the CalETC’s Transportation
7 Electrification Assessment (TEA study): (1) the Zero Emission Vehicle (ZEV) Likely
8 Compliance Scenario, and (2) and an Aggressive Adoption Scenario. The first
9 scenario forecasts that California meets the ZEV mandate, and the second is that
10 there will be an increased adoption rate leading to 3xs the number of ZEV s needed
11 to meet the mandate.¹¹¹ PG&E said it used these two scenarios and came up with
12 a third scenario that is halfway between the ZEV Likely Compliance Scenario and
13 the Aggressive Adoption Scenario, and refers to it as the “Moderate Scenario”.¹¹²

14 ORA disagrees with PG&E’s approach for the following reasons. First, the
15 TEA study was finalized and updated in September of 2014. This study is almost
16 two years old and should not be relied on as it is no longer timely. Second, the
17 TEA’s forecast is by decades, with the first one for 2020. In order to estimate the
18 2017 forecast, PG&E would have had to estimate from the 2020 estimated data and
19 scale down to 2017. Also, the TEA study is a general study for the entire state of
20 California and relies on too many non-specific factors, such as anticipated market
21 growth, expected incentive programs, and compliance with existing regulations that
22 may not have a direct effect on the number of customer inquiries regarding PEV
23 rates. Moreover, PG&E’s forecast is based on the number of PEV owners on EV
24 rates. This does not reflect the actual number of inquiries handled by PG&E
25 because PEV owners may choose rates using PG&E’s website without having to
26 contact PG&E directly. PG&E’s recorded data for actual PEV inquiries is the most
27 reliable and therefore should be used to estimate the number of PEV inquiries the

¹¹¹ PG&E’s response to ORA-78, Q. 1.

¹¹² PG&E’s response to ORA-78, Q. 1.

1 utility receives. However, PG&E did not take the actual number of PEV inquiries into
2 consideration when determining its 2017 forecast.

3 ORA's forecast is based on using PG&E's actual number of PEV applications
4 processed and tracked under MWC EV, subaccount EVB, each year from 2010 to
5 2015. For 2015, PG&E provided the number of PEV applications processed from
6 January through September, and ORA used this data to annualize to year end 2015.
7 ORA then used PG&E's 2010 to 2015 data and trended it to 2017. ORA's forecast
8 is 2,220 PEV while PG&E's forecast is 5,992 inquiries for 2017. ORA's 2017
9 recommendation provides for a 35 percent increase above the PG&E's 2014
10 recorded number of PEV inquiries received, which was 1,641. ORA's
11 recommendation should be adopted because it reflects the increase in the rate of
12 PEV inquiries experienced by PG&E between 2011 and 2015. ORA's
13 recommendation is based on actual data and includes the 2015 experience in
14 determining the 2017 number of PEV inquiries.

15 ORA does not dispute PG&E's use of \$469 per PEV inquiry for 2017. This
16 unit cost is 50% higher than the unit cost of an average inquiry tracked in
17 subaccount EVB. PG&E claims that PEV inquiries are more complicated and more
18 costly to process, requiring a "Complexity Adder" of 50%.¹¹³ PG&E estimates the
19 unit cost for a PEV inquiry at \$469 compared to \$313 for an average EVB
20 request.¹¹⁴ Based on a review of the recorded costs to process PEV inquiries from
21 2011 to 2015 (as of November) the average unit cost to process a PEV inquiry
22 appears to be higher than other inquiries tracked under subaccount EVB.¹¹⁵ ORA
23 accepts PG&E's 2017 unit cost of \$469 per PEV inquiry.

24 ORA uses the PG&E's PEV unit cost of \$469 and applied it to ORA's PEV
25 forecast of 2,220 applications to be processed in 2017, resulting in a total expense

¹¹³ Ex.PG&E-4-WP, p. WP 17-14, line 4.

¹¹⁴ Ex PG&E-4-WP, p. WP 17-13, line 3.

¹¹⁵ PG&E's response to ORA-147, Q. 2.

1 amount of \$1.0 million. ORA’s recommendation is \$1.7 million lower than PG&E’s
2 forecast of \$2.7 million for 2017.

3 **2. MWC EW—Electric Transmission Distribution**
4 **Work Requested by Others-Maintenance**

5 PG&E requests \$17.8 million, an increase of \$2.8 million or 19% above the
6 2014 recorded expenses, for MWC EW.¹¹⁶ The work activities tracked by MWC EW
7 are: (1) Expense Relocations, (2) Electric Generation Interconnection, and (3)
8 Other.¹¹⁷ The increase is mainly attributable to escalation. PG&E spent \$6.1
9 million for Expense Relocations in 2014 and requests \$6.9 million for 2017.¹¹⁸ For
10 Electric Generation Interconnection, PG&E spent \$9.1 million in 2014 and requests
11 \$10 million for 2017.¹¹⁹ According to PG&E, the forecast for “Other” subaccount
12 captures nominal differences between the 2014 recorded versus 2014 recorded
13 adjusted data. There is no forecast under the “Other” subcategory for 2017.¹²⁰

14 After reviewing PG&E’s testimony, workpapers, and discovery responses
15 pertaining to this area, ORA does not dispute PG&E’s request of \$17.8 million for
16 MWC EW for 2017.

17 **XVIII. RULE 20A**

18 PG&E does not request any expense for 2017 for this work program.

¹¹⁶ Ex. PG&E-4, p. 17-3.

¹¹⁷ Ex. PG&E-4, pp. 17-9 to 17-10.

¹¹⁸ Ex. PG&E-4, p. 17-27.

¹¹⁹ Ex. PG&E-4, p. 17-28.

¹²⁰ Ex. PG&E-4, p. 17-10.

1 **XIX. ELECTRIC DISTRIBUTION SUPPORT ACTIVITIES**

2 PG&E’s Electric Distribution Support Activities program consists of two work
3 categories: (1) Distribution Support, and (2) Training Curriculum Development.
4 PG&E requests \$9.2 million in total for Electric Distribution Support. ORA
5 recommends a total of \$4.1 million for Electric Distribution Support for 2017. This
6 amount is \$5.1 million lower than PG&E’s forecast.

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

8 The following table summarizes PG&E’s request and ORA’s recommendation
9 for Electric Distribution Support Activities expenses.

10 **Table 9-21**
11 **Electric Distribution Support Activities**
12 **2010-2014 Recorded and 2017 Expense Forecast**
13 **(In Thousands of Dollars)**

Description	2010	2011	2012	2013	2014	PG&E 2017	ORA 2017
MWC AB	\$1,859	\$1,843	\$4,699	\$4,302	\$4,752	\$1,987	\$1,987
MWC DN	\$-	\$-	\$-	\$-	\$1,336	\$7,219	\$2,073
Total	\$1,859	\$1,843	\$4,699	\$4,302	\$6,088	\$9,205	\$4,060

14 Source: Ex. PG&E-4, WP, p. WP 19-1.

15 **1. MWC AB—Distribution Support Expense**

16 PG&E requests \$1.987 million in expenses for MWC AB, Distribution Support
17 Expense.¹²¹ This is a decrease of \$2.765 million from the base year level. The
18 work expenses for MWC AB include the following: (1) annual dues paid to the
19 Edison Electric Institute, (2) regulatory support for rate cases, (3) payments for
20 storage facilities to store evidence materials in support of the CPUC’s General Order
21 95, (4) interdepartmental energy usage costs for electrical distribution, and (5) costs
22 to address customer concerns about Electric and Magnetic Fields.¹²²

¹²¹ Ex. PG&E-4, p. 19-10.

¹²² Ex. PG&E-4, pp. 19-7 to 19-9.

1 After reviewing PG&E’s testimony, workpapers, and discovery responses
2 pertaining to this area, ORA does not disagree with PG&E’s proposal of \$1.987
3 million for MWC AB.

4 2. MWC DN—Develop and Provide Training

5 PG&E requests \$7.2 million in expense to develop and provide training.¹²³
6 ORA recommends \$2.1 million for MWC DN.

7 The work activities tracked under MWC DN include revising existing and
8 creating new training materials and course curriculums for PG&E’s workforce.¹²⁴
9 According to PG&E, there are three areas that drive the increase from \$1.3 million to
10 \$7.2 million in 2017: (1) Technical Training Curriculum, (2) Pathway to Supervisor
11 Program, and (3) Pathway to Superintendent Program.

12 For Technical Training Curriculum, PG&E requests \$3.1 million in 2017,
13 which is an increase of \$1.8 million above the 2014 recorded amount of \$1.3 million.
14 PG&E’s Technical Training Curriculum expense request is to address curriculum
15 needs, based on 2012-2014 historical spending.¹²⁵ PG&E requests two new
16 expenses for 2017 which are: (1) \$3 million for the Pathway to Supervisor Program
17 and (2) \$750,000 for the Pathway to the Superintendent Program.¹²⁶ PG&E states
18 that the expenses for the two Pathway programs are needed because it faces a
19 significant challenge in acquiring and retaining qualified employees due to a number
20 of factors including an aging workforce, increases in non-retirement attrition, and
21 increases in external competition for qualified candidates.¹²⁷

22 ORA disagrees with PG&E’s 2017 expense proposal for MWC DN because
23 PG&E is already receiving funding for technical training curriculum development

¹²³ Ex. PG&E-4, p. 19-13.

¹²⁴ Ex. PG&E-4, p. 19-19.

¹²⁵ Ex. PG&E-4, p. 19-11.

¹²⁶ Ex. PG&E-4, p. 19-13.

¹²⁷ Ex. PG&E-4, p. 19-12.

1 through other sources, and also because its request is inadequately supported.
2 According to PG&E, its Human Resources department provides curriculum
3 oversight, training/curriculum development and training/curriculum maintenance for
4 multiple LOBs, including Electric Distribution.¹²⁸ In 2013, however, \$6.3 million was
5 removed from the Human Resources Department and allocated to Electric
6 Operations curriculum development.¹²⁹ As such, there is \$6.3 million already
7 embedded in rates for Electric Distribution Operations. There is existing funding
8 twice the amount of PG&E's request for 2017 for Technical Training Curriculum.
9 Therefore PG&E should receive zero dollars instead of the proposed \$3.1 million for
10 2017.

11 PG&E's estimate for 2017 is also inadequately supported. As of October
12 2015, the company spent \$1.7 million in training development costs.¹³⁰ The 2015
13 recorded expense is approximately 50 percent lower than the PG&E forecast
14 amount of \$3.1 million, but compares closely with the 2014 recorded amount of \$1.3
15 million.¹³¹

16 As for PG&E's request of \$3 million for the Pathway to Supervisor Program
17 and \$750,000 for the Pathway to the Superintendent Program, ORA finds that PG&E
18 does not need these programs. PG&E claims that the organization faces a
19 significant challenge in acquiring and retaining qualified employees for the First Line
20 Supervisors and Superintendent positions.¹³² PG&E attributes its challenge to a
21 number of factors including an aging workforce, increases in non-retirement attrition

¹²⁸ PG&E's response to ORA-87, Q. 1.

¹²⁹ PG&E's response to ORA-87, Q. 1 (b).

¹³⁰ PG&E's response to ORA-82, Q. 2.

¹³¹ Ex. PG&E-4, Workpapers, p. 19-7.

¹³² Ex. PG&E-4, p. 19-12.

1 and external competition for qualified candidates, inadequate bench strength, and
2 extended hiring timelines.¹³³

3 ORA asked if PG&E has performed any studies to determine that the two
4 programs it proposes for 2017 will successfully resolve its stated problem. PG&E
5 said it did not conduct such a study.¹³⁴ However, PG&E claims that several similar
6 programs that the utility conducted in the past have yielded positive results.¹³⁵
7 PG&E identified the following programs from 2010 to 2014, in the table below that
8 have been effective at retaining employees and that very few left the utility for
9 reasons other than due to retirement.

10
11 **Table 9-22**
12 **PG&E Employee Retention Programs from 2010-2014**

Program	Year	Number of employees accepted into the program	Number of employees currently in a Supervisor / Superintendent (or equivalent) position	Number of employees not currently in a Supervisor / Superintendent (or equivalent) position	Number of employees that have since left the Company*
Preparing for Management	2010	11	10	1	0
Electric Supervisor Development Program	2010	20	15	4	9
Electric Supervisor Development Program Pathway to Superintendent Program	2011	14	7	2	5
	2014	7	7	0	0

*Note: At least 10 of these 14 employees who left PG&E were due to retirement

13
14 Source: PG&E's response to ORA 177-Q.1.

15 It appears that PG&E already has programs in place that support PG&E's
16 employee retention, especially for Supervisor and Superintendent positions. The
17 expenses for these programs are already embedded in rates and PG&E should not
18 be provided additional ratepayer funding to provide the same activities.

¹³³ Ex. PG&E-4, p. 19-12

¹³⁴ PG&E's response to ORA-177, Q. 1.

¹³⁵ PG&E's response to ORA-177, Q. 1

1 PG&E compensates its employees very well. The utility provides the
2 following compensation elements: (1) Base salary, (2) Short-term incentives, long-
3 term incentives, and bonuses, (3) retirement plans, including stock purchase plans,
4 (4) short-term and long-term disability plans, (5) Medical plans for active and retiree,
5 (6) Dental plans for active and retiree, (7) life insurance, (8) overtime pay and shift
6 differentials, (9) paid time off such as vacation and holidays, and (10) special
7 recognition awards or spot bonuses.

8 In the PG&E 2017 GRC Total Compensation Study, the results show that
9 PG&E is a very competitive employer. The Study concludes that PG&E's target total
10 compensation level is estimated to be 6.1 percent above the average mean of the
11 competitive market, and that its actual total compensation company-wide is
12 estimated to be 5.1 percent above the average mean of the competitive market.¹³⁶
13 For the Senior Manager/Manager/Principal/Supervisor category, the total
14 compensation is 3.3 percent above the average of the competitive market.¹³⁷ As for
15 the Professional category, PG&E's total compensation is 5 percent above the
16 average of the market.¹³⁸

17 PG&E lacks adequate support for the \$6 million increase in expense for MWC
18 DN. ORA recommends \$2.1 million for MWC DN. This amount is the 2015
19 recorded expenses incurred by PG&E for MWC DN, and is \$800,000 higher than the
20 \$1.3 million recorded for base year 2014. ORA's recommendation of \$2.1 million is
21 \$5.1 million lower than PG&E's request of \$7.2 million.

¹³⁶ Ex. PG&E-8, PG&E's 2017 GRC Total Compensation Study, page 7-6.

¹³⁷ Ex. PG&E-8, PG&E's 2017 GRC Total Compensation Study, page 7-7.

¹³⁸ Ex. PG&E-8, PG&E's 2017 GRC Total Compensation Study, page 7-7.

1 **XX. REPORTING REQUIREMENTS / BALANCING ACCOUNTS**

2 **A. PG&E’s Proposals**

3 This section discusses PG&E’s request to continue the balancing account
4 treatment for two work programs: (1) Major Emergencies, and (2) Vegetation
5 Management.

6 **1. Major Emergencies**

7 PG&E proposes to continue the two-way balancing account for its expense
8 (and capital) costs incurred for major emergencies (“MEBA”).¹³⁹ The MEBA tracks
9 the expenses for resulting from responding to major emergencies and catastrophic
10 events not eligible for recovery through the Catastrophic Event Memorandum
11 Account (CEMA).

12 **2. Vegetation Management**

13 PG&E requests the continuation of the one-way balancing account for its
14 Vegetation Management (VM) program.¹⁴⁰ The Vegetation Management Balancing
15 Account (VMBA) is to record the difference between the PG&E 2017 GRC
16 authorized VM expense and PG&E’s recorded VM expense.

17 **B. ORA’s Position**

18 **1. Major Emergencies**

19 ORA does not disagree with PG&E’s request to continue the two-way
20 balancing account for costs authorized through the MEBA. However, ORA disputes
21 the 2017 expense for this work program and recommends \$82 million and not \$88
22 million as PG&E requests for 2017. For the detailed analysis and recommendation
23 regarding Major Emergencies, see Section IV, B, 2 above.

¹³⁹ Ex. PG&E-4, p. 1A-9.

¹⁴⁰ Ex. PG&E-4, p. 1A-10.

1 **2. Vegetation Management**

2 ORA does not disagree take issue with PG&E's proposal to continue the one-
3 way balancing account for VM expenses.

4 **XXI. WITNESS QUALIFICATIONS**

5 My name is Dao A. Phan. My business address is 505 Van Ness Avenue,
6 San Francisco, California. I am employed by the California Public Utilities
7 Commission as a Public Utilities Regulatory Analyst V in the Office of Ratepayer
8 Advocates Energy Cost of Service and Natural Gas Branch.

9 I received a Master of Arts degree in Political Science from San Francisco
10 State University and a Bachelor of Arts degree in Political Science from California
11 State University, Hayward. I have testified before the Commission as an expert
12 witness in numerous Commission enforcement and regulatory proceedings. I have
13 been an expert witness in the following areas and proceedings: gas distribution
14 operations and maintenance and capital expenditures, gas transmission and storage
15 operations and maintenance, long-term electric procurement, customer service
16 issues, customer accounts, and compensation and incentives.

17 This completes my prepared testimony.