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Witness : E. Jaeger



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

**Report on the Results of Operations
for
San Diego Gas & Electric Company
Southern California Gas Company
Test Year 2016
General Rate Case**

SDG&E – Electric Distribution Expenses

San Francisco, California
April 24, 2015

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SDG&E – ELECTRIC DISTRIBUTION EXPENSES

I. INTRODUCTION

This exhibit presents the analyses and recommendations of the Office of Ratepayer Advocates (ORA) regarding the Electric Distribution operation and maintenance (O&M) expense proposals of San Diego Gas & Electric Company (SDG&E) in its Test Year (TY) 2016 General Rate Case (GRC). This exhibit also addresses SDG&E's proposals regarding Electric Reliability Performance Measures.

SDG&E only incurs Non-Shared Electric Distribution O&M expenses for work activities related to the operation, maintenance, supervision, and engineering associated with its electric distribution system. SDG&E does not incur any Shared Electric Distribution O&M expenses.

II. SUMMARY OF RECOMMENDATIONS

The following summarizes ORA's recommendations regarding Non-Shared Electric Distribution O&M expenses for TY 2016:

- ORA's estimate is \$33.055 million for Electrical Regional Operations, which is \$3.804 million lower than SDG&E's forecast of \$36.859 million.
- ORA's estimate is \$7.650 million for Troubleshooting, which is \$0.315 million lower than SDG&E's forecast of \$7.965 million.
- ORA's estimate is \$3.660 million for Skills and Compliance Training, which is \$1.427 million lower than SDG&E's forecast of \$5.087 million.
- ORA's estimate is \$0.528 million for Project Management, which is \$0.840 million lower than SDG&E's forecast of \$1.368 million.
- ORA's estimate is \$0.685 million for the Service Order Team, which is \$0.198 million lower than SDG&E's forecast of \$0.883 million.
- ORA's estimate is \$0.226 million for Grid Operations, which is \$0.122 million lower than SDG&E's forecast of \$0.348 million.
- ORA's estimate is \$5.622 million for Substation Construction and Maintenance, which is \$1.290 million lower than SDG&E's forecast of \$6.912 million.

- 1 • ORA's estimate is \$11.377 million for Electric Distribution
2 Operations, which is \$3.938 million lower than SDG&E's forecast of
3 \$15.315 million.
- 4 • ORA's estimate is \$1.996 million for Distribution Operations/EGISS,
5 which is \$0.651 million lower than SDG&E's forecast of \$2.647
6 million.
- 7 • ORA's estimate is \$1.736 million for Kearny Operations Services,
8 which is \$0.503 million lower than SDG&E's forecast of \$2.239
9 million.
- 10 • ORA's estimate is \$11.667 million for Construction Services, which
11 is \$7.198 million lower than SDG&E's forecast of \$18.865 million.
- 12 • ORA's estimate is \$23.858 million for Vegetation Management
13 (Tree Trimming), which is \$0.701 million lower than SDG&E's
14 forecast of \$24.559 million.
- 15 • ORA recommends that the Commission does not adopt SDG&E's
16 proposal for a two-way balancing account for Vegetation
17 Management (Tree Trimming) and instead continues the use of a
18 one-way balancing account.
- 19 • ORA's estimate is \$1.397 million for Distribution Engineering, which
20 is \$0.512 million lower than SDG&E's forecast of \$1.909 million.
- 21 • ORA's estimate is \$0.207 million for Technology Innovation and
22 Development, which is \$0.675 million lower than SDG&E's forecast
23 of \$0.882 million.
- 24 • ORA's estimate is \$0.502 million for Reliability and Capacity
25 Analysis, which is \$0.116 million lower than SDG&E's forecast of
26 \$0.618 million.
- 27 • ORA's estimate is \$0.140 million for Information Management
28 Support, which is \$0.236 million lower than SDG&E's forecast of
29 \$0.376 million.
- 30 • ORA's estimate is \$1.243 million Technology Utilization, which is
31 \$0.705 million lower than SDG&E's forecast of \$1.948 million.

32

33 ORA does not dispute SDG&E's TY expense forecasts for the following items:
34 Regional Public Affairs, System Protection, Vegetation Management (Pole
35 Brushing), Compliance and Asset Management, Major Projects, Administrative and
36 Management, Officer, Exempt Materials, Small Tools, and Department Overhead
37 Pools (DOH).

1 Table 5-1 compares ORA's and SDG&E's 2016 Non-Shared expense
 2 forecasts:

3 Table 5-1
 4 Non-Shared Electric Distribution O&M Expenses for TY 2016
 5 (in Thousands of 2013 Dollars)

Description (a)	ORA Recommended (b)	SDG&E Proposed ¹ (c)	Amount SDG&E>ORA (d=c-b)	Percentage SDG&E>ORA (e=d/b)
Electric Regional Operations (ERO)	\$33,055	\$36,859	\$3,804	11.51%
Troubleshooting	\$7,650	\$7,965	\$315	4.12%
Skills & Compliance Training	\$3,660	\$5,087	\$1,427	38.99%
Project Management	\$528	\$1,368	\$840	159.09%
Service Order Team (SOT)	\$685	\$883	\$198	28.91%
Regional Public Affairs	\$1,687	\$1,687	\$0	0.00%
Grid Operations	\$226	\$348	\$122	53.98%
Substation Construction and Maintenance	\$5,622	\$6,912	\$1,290	22.95%
System Protection	\$1,711	\$1,711	\$0	0.00%
Electric Distr Operations	\$11,377	\$15,315	\$3,938	34.61%
Distr Operations / EGISS	\$1,996	\$2,647	\$651	32.62%
Kearny Operations Services	\$1,736	\$2,239	\$503	28.97%
Construction Services	\$11,667	\$18,865	\$7,198	61.70%
Vegetation Management – Tree Trimming	\$23,858	\$24,559	\$701	2.94%
Vegetation Management – Pole Brushing	\$4,292	\$4,292	\$0	0.00%
Compliance & Asset Mgmt	\$2,702	\$2,702	\$0	0.00%
Distribution Engineering	\$1,397	\$1,909	\$512	36.65%
Technology Innovation and Development	\$207	\$882	\$675	326.09%
Reliability and Capacity Analysis	\$502	\$618	\$116	23.11%
Information Mgmt Support for Electric Distribution	\$140	\$376 ²	\$236	168.57%
Major Projects	\$147	\$147	\$0	0.00%
Technology Utilization	\$1,243	\$1,948	\$705	56.72%
Administrative & Mgmt	\$324	\$324	\$0	0.00%
Officer	\$476	\$476	\$0	0.00%
Total	\$116,888	\$140,119	\$23,231	19.87%

6

¹ Ex. SDG&E-10-R, p. JTW-8.

² SDG&E includes \$0.037 million for “Geographic Business Solutions Desktop” in its forecast for “Information Management Support” (see Ex. SDG&E-10-WP-R, p. 146). ORA recommends \$0 for this activity; SDG&E provides no supporting explanations or workpapers for this activity.

1 **III. ELECTRIC REGIONAL OPERATIONS (ERO)**

2 **A. Overview of SDG&E's Request**

3 Electrical Regional Operations consists of expenses associated with
4 SDG&E's electrical distribution crews, whose primary job functions are to maintain
5 the electric distribution system, restore service resulting from outages, and fix
6 service problems. SDG&E forecasts \$36.859 million for Electric Regional
7 Operations, which is an increase of \$5.110 million or 16.09% over 2013 recorded
8 expenses of \$31.749 million and an increase of \$6.523 million or 21.50% over 2014
9 recorded expenses of \$30.336 million. ORA's corresponding TY forecast is \$33.055
10 million, which is \$3.804 million lower than SDG&E's forecast.

11 Table 5-2
12 Electric Regional Operations Expenses
13 2009-2014 Recorded and 2016 Forecast
14 (in Thousands of 2013 Dollars)

Description	2009	2010	2011	2012	2013	2014	SDG&E 2016	ORA 2016
Labor	\$26,341	\$24,780	\$23,405	\$23,005	\$22,172	\$21,043	\$24,542	\$22,881
Non-Labor	\$10,977	\$9,757	\$10,771	\$11,473	\$9,577	\$9,293	\$12,317	\$10,174
ERO	\$37,318	\$34,538	\$34,176	\$34,478	\$31,749	\$30,336	\$36,859	\$33,055

15 Source: 2009-2013 data from Ex. SDG&E-10-WP-R, p. 11. 2014 adjusted-recorded expenses from
16 Sempra email to ORA dated March 13, 2015.

17 SDG&E developed its TY forecast by using 2013 base year recorded
18 expenses plus an incremental increase of \$5.110 million for the activities listed in the
19 following table.

20

1
2
3

Table 5-3
Incremental Increases for TY 2016
(in Thousands of 2013 Dollars)

	Labor(\$)	Non-labor(\$)
Behavior Based Safety Training Program	200	
Workforce Development	350	
OH Switch Inspection and Maintenance	127	
Overhead Connector Program	727	
CMP Inspection Intervals	56	
Intrusive Wood Pole Inspection Load Calculations Increases		500
Badge Access to Military Bases		55
FR Shirt Replacement		25
Phase 2 of the Performance Management Reporting System		100
Automated Roster Callout System		75
Work Management Process and Systems Support		100
Additional C&O Planners and Supervisors	731	
Resource Needs for ARSO and Forecaster	32	
Jurisdictional Permitting and OT Drivers	147	387
Traffic Control Expenses		1,489
2016 Total Incremental	2,370	2,731

4 Source: Ex. SDG&E-10-WP-R, pp.30-31.

5 **B. ORA's Analysis**

6 SDG&E conducts a flawed implementation of its forecast methodology, which
7 utilizes 2013 base year expenses and adds incremental funding for several work
8 activities. Primarily, SDG&E fails to distinguish between costs associated with
9 ongoing work activities that are embedded in the 2013 base year and costs
10 associated with new, incremental work. The result is a double-counting of expenses
11 and an inflated TY forecast.

12 ORA conducted discovery in order to better understand how SDG&E
13 calculated incremental requests in funding. In SDG&E's original application filed in
14 November 2014, SDG&E's TY forecast for ERO was \$38.338 million. In response to
15 ORA's data requests on "Red Flag preparedness", "Elevated Wind Conditions", and
16 "Outage Patrolling During High Fire Risk Periods", SDG&E responded:³

³ SDG&E response to ORA data request ORA-SDG&E-033-EJ1, Q.s.10-12.

1 “In researching this data request response, SDG&E has determined that the
2 incremental value was part of base business and not incremental, and there
3 is no incremental increase needed over Base Year values. This value will be
4 corrected in errata.”

5
6 SDG&E’s corrections in errata significantly reduced SDG&E’s TY forecast of
7 \$38.338 million by \$1.479 million to its current TY forecast of \$36.859 million.⁴

8 SDG&E failed to distinguish between incremental work and base business for the
9 three projects.

10 ORA discovered further errors in SDG&E’s calculations for determining
11 incremental work. For “Jurisdictional Permitting and OT Drivers”, ORA asked:⁵

12 “...In SDG&E’s testimony, SDG&E is requesting an incremental increase of
13 \$387k over 2013 base year costs - this is the total cost of the activity and not
14 the incremental amount needed over 2013 recorded expenses. Please
15 confirm if the incremental amount of funding requested by SDG&E should
16 actually be \$96k and not \$387k.”

17
18 SDG&E’s response:

19 “Yes, this is an error. The incremental amount requested for jurisdictional
20 permitting and OT drivers should actually be \$96K, not \$387K. This will be
21 corrected at hearings.”

22
23 For “Traffic Control Expenses”, ORA asked:⁶

24 “...In SDG&E’s testimony, SDG&E is requesting an incremental increase of
25 \$1,488,539 over 2013 base year costs - this is the total cost of the activity and
26 not the incremental amount needed over 2013 recorded expenses. Please
27 confirm if the incremental amount of funding requested for Traffic Control
28 Expenses should actually be \$370,178 and not \$1,488,539.”

29
30

⁴ “2016 GRC General Revised APP Log for ORA” from Sempra email to ORA dated March 25, 2015. The funding requests for “Red Flag preparedness”, “Elevated Wind Conditions”, and “Outage Patrolling during High Fire Risk Periods” were removed in SDG&E’s revised testimony in response to ORA data request ORA-SDG&E-033-EJ1, Q.s. 10-12.

⁵ SDG&E response to ORA data request ORA-SDG&E-074-EJ1, Q.3.

⁶ SDG&E response to ORA data request ORA-SDG&E-074-EJ1, Q.4.

1 SDG&E's response:

2 "Yes, this is an error. The incremental amount of funding requested for traffic
3 control expenses should actually be \$370K, not \$1,489K. This will be
4 corrected at hearings."

5 SDG&E's adjustments for "Jurisdictional Permitting and OT Drivers" and
6 "Traffic Control Expenses" reduce SDG&E's TY forecast by another \$1.410 million,
7 from \$36.859 million to \$35.449 million. SDG&E's substantial corrections in
8 response to ORA's discovery demonstrates SDG&E's significant failure to
9 distinguish between ongoing base year activities and incremental work.

10 For the "Overhead Connector Program", "CMP Inspection Intervals", "Badge
11 Access to Military Bases", "Additional C&O Planners to Meet Future Needs" and
12 labor expenses for "Jurisdictional Permitting", historical costs for the work activities
13 are embedded in the operating costs and are not tracked separately by SDG&E.⁷
14 Because SDG&E does not isolate the work or associated costs embedded in the
15 base year, it is unclear how SDG&E can accurately forecast an incremental increase
16 in funding for these activities. SDG&E's failure to identify the difference between
17 base business and incremental work makes it difficult for ORA to evaluate one-time
18 costs and embedded work.

19 There are also no historical costs for "Phase 2 of the Performance
20 Management Reporting System," "Automated Roster Callout System," and "Work
21 Management Process and Systems Support," which are all new work activities that
22 were implemented in 2013.⁸ Low spending levels in 2013 and 2014 indicate that
23 these work activities have not had the huge cost impact on SDG&E's total expense
24 levels that SDG&E had forecast, nor will these activities have a huge cost impact on
25 total TY 2016 expense levels.

26

⁷ SDG&E response to ORA data request ORA-SDG&E-033-EJ1, Q.7a, Q.8a, Q.13a, and Q.18a;
SDG&E response to ORA data request ORA-SDG&E-074-EJ1, Q.2a.

⁸ SDG&E response to ORA data request ORA-SDG&E-033-EJ1, Q.15a, Q.16a, and Q.17a.

1 In most instances where SDG&E is able to provide historical information,
2 costs have remained historically stable, such as “Behavior Based Safety Training
3 Program,” “Workforce Development,” and “OH Switch Inspection and
4 Maintenance.”⁹ SDG&E provides vague and insufficient explanations as to why
5 SDG&E needs to make expensive enhancements to routine expenses with
6 historically stable costs that exhibit no upward pressures.

7 SDG&E is inflating its TY forecast by failing to recognize or track embedded
8 historical costs. ERO work consists of routine and ongoing operations, and
9 expenses have remained relatively steady for the past six historical years (2009-
10 2014) with 2013 and 2014 expenses being the lowest historical recorded spending
11 levels at \$31.749 million and \$30.336 million, respectively. SDG&E overstated its
12 2014 forecast of \$38.191 million by \$7.855 million more than the actual recorded
13 2014 expenses of \$30.366 million.¹⁰ SDG&E’s TY 2016 forecast of \$36.859 million
14 is also overstated.

15 ORA developed its TY forecast of \$33.055 million by using a 5-year average
16 (2010-2014) of historical recorded expenses. ORA’s forecast is \$2.719 million
17 greater than 2014 recorded expenses of \$30.336 million. It is also greater than the
18 3-year average (2012-2014) of historical recorded expenses which is \$32.188
19 million. Given historical trends in SDG&E’s expense levels, ORA’s forecast should
20 be sufficient to cover SDG&E’s TY expenses.

⁹ SDG&E response to ORA data request ORA-SDG&E-002-EJ1, Q.5a; SDG&E response to ORA data request ORA-SDG&E-033-EJ1, Q.5a, and Q.6a.

¹⁰ In SDG&E’s original application filed in November 2014, SDG&E’s 2014 forecast for ERO was \$38.191 million (Ex. SDG&E-10-WP, p. 11). The funding requests for “Red Flag preparedness”, “Elevated Wind Conditions”, and “Outage Patrolling during High Fire Risk Periods” were removed from the 2014 forecast in SDG&E’s revised testimony in response to ORA data request ORA-SDG&E-033-EJ1, Q.s 10-12. 2014 adjusted-recorded expenses from Sempra email to ORA dated March 13, 2015.

1 **IV. TROUBLESHOOTING**

2 **A. Overview of SDG&E’s Request**

3 The Troubleshooting group is responsible for engineering and system
4 troubleshooting to ensure reliable and safe electric service. SDG&E forecasts
5 \$7.965 million for Troubleshooting, which is an increase of \$0.440 million or 5.85%
6 over 2013 recorded expenses of \$7.525 million and an increase of \$1.063 million or
7 15.40% over 2014 recorded expenses of \$6.902 million. ORA’s corresponding TY
8 forecast is \$7.650 million, which is \$0.315 million lower than SDG&E’s forecast.

9 Table 5-4
10 Troubleshooting Expenses
11 2009-2014 Recorded and 2016 Forecast
12 (in Thousands of 2013 Dollars)

Description	2009	2010	2011	2012	2013	2014	SDG&E 2016	ORA 2016
Labor	\$7,559	\$7,373	\$7,734	\$7,714	\$7,215	\$6,607	\$7,655	\$7,329
Non-Labor	\$285	\$265	\$350	\$385	\$310	\$295	\$310	\$321
Troubleshooting	\$7,844	\$7,638	\$8,084	\$8,100	\$7,525	\$6,902	\$7,965	\$7,650

13 Source: 2009-2013 data from Ex. SDG&E-10-WP-R, p. 58. 2014 adjusted-recorded expenses from
14 Sempra email to ORA dated March 13, 2015.

15 SDG&E developed its TY forecast of \$7.965 million by using 2013 base year
16 recorded expenses plus an incremental increase of \$0.440 million for additional
17 troubleshooters to cover system growth requirements.

18 **B. ORA’s Analysis**

19 There is no indication that costs are increasing to cover system growth
20 requirements. SDG&E’s 2013 and 2014 recorded expenses are the two lowest
21 historical recorded expenses of the past six years (2009-2014) at \$7.525 million and
22 \$6.902 million, respectively. SDG&E overstated its 2014 forecast of \$8.165 million
23 by \$1.263 million more than actual 2014 recorded expenses of \$6.902 million.¹¹
24 SDG&E’s TY 2016 forecast is also overstated, as well as its need for additional

¹¹ SDG&E’s 2014 forecast from Ex. SDG&E-10-WP-R, p. 58. 2014 adjusted-recorded expenses from Sempra email to ORA dated March 13, 2015.

1 troubleshooters. SDG&E provides no workload analyses to help support the need
2 for the positions.

3 ORA developed its TY forecast of \$7.650 million by using a 5-year average
4 (2010-2014) of historical recorded expenses. ORA's forecast is \$0.748 million
5 greater than 2014 recorded expenses of \$6.902 million. It is also greater than the 3-
6 year average (2012-2014) of historical expenses which is \$7.509 million.

7 **V. SKILLS AND COMPLIANCE TRAINING**

8 **A. Overview of SDG&E's Request**

9 Skills and Compliance Training consists of expenses associated with the
10 development and training of the Electric Regional Operations workforce. SDG&E
11 forecasts \$5.087 million for Skills and Compliance Training, which is an increase of
12 \$1.427 million or 38.99% over 2013 recorded expenses of \$3.660 million and an
13 increase of \$2.474 million or 94.68% over 2014 recorded expenses of \$2.613
14 million. ORA's corresponding TY forecast is \$3.660 million, which is \$1.427 million
15 lower than SDG&E's forecast.

16 Table 5-5
17 Skills and Compliance Training Expenses
18 2009-2014 Recorded and 2016 Forecast
19 (in Thousands of 2013 Dollars)

Description	2009	2010	2011	2012	2013	2014	SDG&E 2016	ORA 2016
Labor	\$2,635	\$2,202	\$2,364	\$2,313	\$2,751	\$2,171	\$4,181	\$2,751
Non-Labor	\$930	\$610	\$647	\$710	\$909	\$442	\$906	\$909
Skills and Comp- liance Training	\$3,564	\$2,812	\$3,011	\$3,023	\$3,660	\$2,613	\$5,087	\$3,660

20 Source: 2009-2013 data from Ex. SDG&E-10-WP-R, p. 90. 2014 adjusted-recorded expenses from
21 Sempra email to ORA dated March 13, 2015.

22 SDG&E developed its TY forecast of \$3.660 million by using 2013 base year
23 recorded expenses plus an incremental increase of \$1.427 million for the activities
24 listed on the following table.

25

1
2
3

Table 5-6
Incremental Increases for TY 2016
(in Thousands of 2013 Dollars)

	Labor	Non-labor
New Training Technology		15
Operator Certification		12
(Safety and Environmental) Tool Technician	80	
(Safety, Injury Prevention, Workforce Development)	90	
(Aging Infrastructure)		281
(Materials)		40
Adding Instructional Designers	1000	(351)
Workforce	180	
Workforce and Safety Compliance program Support	80	
2016 Total Incremental	1,430	(3)

4 Source: Ex. SDG&E-10-WP-R, pp. 99-100.

5 B. ORA's Analysis

6 The development and training of the ERO workforce is part of SDG&E's
7 ongoing operations. SDG&E routinely revises its training programs as old practices
8 and positions become obsolete or outdated. SDG&E regularly replaces or upgrades
9 its training equipment and facilities as they surpass their useful life.

10 On many accounts, SDG&E's fails to show how forecast incremental work is
11 different from ongoing work activities that are already embedded in the 2013 base
12 year. ORA asked SDG&E if it could provide a breakdown of the expenses that are
13 embedded in the 2013 base year.

14 ORA asked:¹²

15 "Please provide a detailed breakdown of 2013 recorded expenses in a similar
16 format as that provided on WP pages 172-173 (include labor, non-labor,
17 FTEs, work activity and explanation)."

18

19 SDG&E's response:

20 "SDG&E does not have a breakdown of the 2013 recorded expenses in a
21 similar format as provided in the supplemental workpapers. The information
22 provided in the supplemental workpapers are those activities which represent
23 incremental increases and/or decreases for this work group. SDG&E does

¹² SDG&E response to ORA data request ORA-SDG&E-074-EJ1, Q.5.

1 not track expenses for this work group in the categories shown in the
2 supplemental workpapers.”

3 SDG&E is requesting an incremental increase of \$1.427 million over 2013
4 recorded expenses for multiple work activities, but it cannot provide any historical
5 data or information on these activities. Because SDG&E does not isolate the work
6 or associated costs embedded in the base year, it is unclear how SDG&E can
7 accurately forecast an incremental increase in funding for these activities. SDG&E’s
8 failure to identify the difference between base business and incremental work makes
9 it difficult for ORA to evaluate one-time costs and embedded work.

10 ORA conducted further discovery on the specific work activities for which
11 SDG&E is requesting incremental funding. SDG&E’s responses confirmed that
12 these work activities are standard practice for SDG&E and there is embedded
13 funding to address TY expenses. SDG&E’s largest request is for an incremental
14 increase of \$0.649 million to build 25+ structured programs for new ERO job
15 classifications. In response to an ORA data request, SDG&E asserts that the new
16 programs are needed as a result of two primary factors: outdated training methods
17 and significant changes to work management.¹³ These are not new cost drivers and
18 do not justify additional expenses of \$0.649 million. The Skills and Compliance
19 group must routinely incorporate new training methods and respond to significant
20 changes to work management. As job classifications constantly evolve, funding
21 from outdated training programs can be reallocated toward funding for new training
22 programs.

23 SDG&E also forecasts an increase of \$0.180 million for its workforce.
24 SDG&E states that the funding is for “Labor Converted 2014 agency Equipment
25 Training Specialist and Instructional Designer from Agency to RFT. Both are
26 supporting company base (on-going) training programs from SDG&E Operations
27 and Equipment Operations...This is base load on-going work.”¹⁴ In response to

¹³ SDG&E response to ORA data request ORA-SDG&E-002-EJ1, Q.11d.

¹⁴ Ex. SDG&E-10-WP-R, p. 100.

1 ORA’s discovery, SDG&E further states: “These positions were previously
2 outsourced as purchased contract labor. Therefore by converting these positions to
3 in-house labor SDG&E will see a reduction of \$0.235 million in non-labor
4 expenses.”¹⁵ SDG&E’s response confirms that expenses for the two positions are
5 already embedded in the base year as purchased contract labor. SDG&E is simply
6 converting non-labor expenses to labor expenses. SDG&E fails to include the
7 reduction of \$0.235 million in non-labor expenses in its forecast and therefore is
8 double-counting the expenses for these positions.

9 ORA had similar issues with the remaining work activities for which SDG&E is
10 requesting funding. The work activities that SDG&E proposes are embedded in
11 historical expenses – new training technology, operator certification, new
12 infrastructure materials, workforce development, etc. Changes in these work
13 activities are already captured in historical fluctuations of expenses and SDG&E
14 does not provide sufficient evidence that costs will increase beyond the normal
15 spending levels.

16 Expenses have remained relatively stable during historical years, with
17 SDG&E’s 2014 recorded expenses of \$2.613 million being the lowest recorded
18 expenses of the past six years (2009-2014). SDG&E overstated its 2014 forecast of
19 \$5.222 million by \$2.609 million more than the actual 2014 recorded expenses of
20 \$2.613 million.¹⁶ SDG&E’s TY 2016 forecast is also overstated. Historically,
21 SDG&E has never spent the amount being proposed in this GRC. ORA developed
22 its TY forecast of \$3.660 million by using the highest recorded expense level from
23 the past six years (2009-2014).

¹⁵ SDG&E response to ORA data request ORA-SDG&E-074-EJ1, Q.7b.

¹⁶ SDG&E’s 2014 forecast from Ex. SDG&E-10-WP-R, p. 90. 2014 adjusted-recorded expenses from Sempra email to ORA dated March 13, 2015.

1 **VI. PROJECT MANAGEMENT**

2 **A. Overview of SDG&E’s Request**

3 The Project Management group is responsible for the preparation of
 4 construction orders, which allow for additions and modifications to the electric
 5 distribution system. Department personnel design and engineer the construction
 6 orders, which range from servicing individual customers to large distribution
 7 systems. SDG&E forecasts \$1.368 million for Project Management, which is an
 8 increase of \$0.886 million or 183.82% over 2013 recorded expenses of \$0.482
 9 million and an increase of \$0.986 million or 258.12% over 2014 recorded expenses
 10 of \$0.382 million. ORA’s corresponding TY forecast is \$0.528 million, which is
 11 \$0.840 million lower than SDG&E’s forecast.

12 Table 5-7
 13 Project Management Expenses
 14 2009-2014 Recorded and 2016 Forecast
 15 (in Thousands of 2013 Dollars)

Description	2009	2010	2011	2012	2013	2014	SDG&E 2016	ORA 2016
Labor	\$382	\$300	\$694	\$299	\$287	\$337	\$1,161	\$483
Non-Labor	\$89	\$72	\$103	\$110	\$195	\$45	\$207	\$45
ERO	\$471	\$372	\$797	\$409	\$482	\$382	\$1,368	\$528

16 Source: 2009-2013 data from Ex. SDG&E-10-WP-R, p. 111. 2014 adjusted-recorded expenses from
 17 Sempra email to ORA dated March 13, 2015.

18 SDG&E developed its TY forecast of \$1.368 million by using 2013 base year
 19 recorded expenses plus an incremental increase of \$0.886 million for a project
 20 planner class, reassigned personnel, and an increase in personnel.

21 Table 5-8
 22 Project Management TY 2016 Forecast
 23 (in Thousands of 2013 Dollars)

Description	Incremental Increase
Project Planner Class	\$488
Reassigned Personnel	\$146
Personnel Increase	\$252
Total	\$886

24 Source: SDG&E response to ORA data request ORA-SDG&E-002-EJ1, Q.14.

1 **B. ORA’s Analysis**

2 In SDG&E’s 2012 GRC application, SDG&E requested funding for either
3 identical or comparable activities as those listed in SDG&E’s 2015 GRC application.
4 This includes funding for workforce attrition, formal classroom training for new
5 planners, and supplement support staff. For example, SDG&E asserted the
6 necessity of a project planner training class in its 2012 GRC application:¹⁷

7 “To achieve SDG&E’s goals, it is critical to continue to systematically
8 replenish the organization with skilled individuals through hiring and
9 development programs. In 2011, Project Management is seeking to hire and
10 train 16 individuals and put them through a comprehensive Planner Training
11 Class... Planner Training is expected to last 23 weeks. *It is Project
12 Management’s intent to hire and train an additional 16 planners in 2012.*”
13

14 SDG&E was authorized \$1.100 million for Project Management in the 2012
15 GRC Decision, but only spent \$0.409 million in 2012, which is \$0.691 million less
16 than authorized.¹⁸ Despite ample funding, SDG&E failed to hire any planners or
17 conduct any classes in 2012 through 2013.¹⁹

18 In the current rate case, SDG&E reasserts the necessity for an identical
19 project planner training class. SDG&E states:²⁰

20 “In 2015, Project Management is seeking to acquire 16 individuals and put
21 them through a comprehensive training class...Planner Training is expected
22 to last 23 weeks. *It is Project Management’s intent to acquire and train and
23 additional 16 planners in 2016.*”

24 The requested planner training class is identical to the one that SDG&E
25 proposed in its 2012 GRC application, but with a new timeline. Because SDG&E
26 was authorized sufficient funding in 2012 for Project Management, SDG&E’s deferral
27 of its Planner Training class undermines the claimed necessity of its current request

¹⁷ Application 10-12-005, Ex. SDG&E-05, p. SPF-27.

¹⁸ SDG&E response to ORA data request ORA-SDG&E-002-EJ1, Q.1.

¹⁹ SDG&E response to ORA data request ORA-SDG&E-002-EJ1, Q.2.

²⁰ Ex. SDG&E-10-R, p. JTW-28.

1 and its “intent” to acquire and train additional employees for the large sum of money
2 that it has forecasted. Additionally, ratepayers should not pay twice for a program
3 that they have previously funded.

4 ORA takes issue with SDG&E’s request for “personnel increase,” listed on
5 Table 5-8 above, for the same reasons as it does for the planner training class. In
6 the 2012 GRC Application, SDG&E requested and received funding to address
7 workforce attrition and the need for supplemental support staff to assist the
8 additional planners.²¹ As mentioned above, the additional planners were not hired
9 in 2012, and spending remained relatively low from 2012 to 2014. In the 2015 GRC
10 Application, SDG&E is again requesting funding for workforce attrition, project
11 planners, and supplemental support staff. Like the project planner class, SDG&E’s
12 failure to fund these positions in the past undermines the claimed necessity of its
13 current request. Despite asserting these needs since the 2012 GRC, SDG&E’s
14 spending patterns imply that it does not prioritize this work. Notably, SDG&E
15 overstated its 2014 forecast of \$0.616 million by \$0.234 million more than the actual
16 2014 recorded expenses of \$0.382 million.²² SDG&E’s TY 2016 forecast is also
17 overstated. It is inappropriate to require ratepayers to spend more money on
18 activities that they have already funded and that SDG&E does not prioritize.

19 ORA developed its forecast of \$0.528 million by using 2014 recorded
20 expenses plus an incremental increase of \$0.146 million for OpEx returning
21 personnel. ORA’s forecast is \$0.146 million greater than 2014 recorded costs of
22 \$0.382 million, which is sufficient to address emerging TY expenses. It is also
23 greater than both the 3-year (2012-2014) and 5-year (2010-2014) averages of
24 \$0.424 million and \$0.488 million, respectively.

²¹ Application (A.) 10-12-005, SDG&E-05, pp. SPF-26-27.

²² SDG&E’s 2014 forecast from Ex. SDG&E-10-WP-R, p. 111. 2014 adjusted-recorded expenses from Sempra email to ORA dated March 13, 2015.

1 **VII. SERVICE ORDER TEAM**

2 **A. Overview of SDG&E’s Request**

3 The Service Order Team (SOT) is responsible for planning, overseeing, and
4 managing new additions and modifications to the electric distribution system,
5 primarily related to services. The SOT acts as the SDG&E customer representative
6 by negotiating with internal and external entities. SDG&E forecasts \$0.883 million for
7 the SOT, which is an increase of \$0.037 million or 4.37% over 2013 recorded
8 expenses of \$0.846 million and an increase of \$0.235 million or 36.27% over 2014
9 recorded expenses of \$0.648 million. ORA’s corresponding TY forecast is \$0.685
10 million, which is \$0.198 million lower than SDG&E’s forecast.

11 Table 5-9
12 Service Order Team
13 2009-2014 Recorded and 2016 Forecast
14 (in Thousands of 2013 Dollars)

Description	2009	2010	2011	2012	2013	2014	SDG&E 2016	ORA 2016
Labor	\$127	\$138	\$162	\$306	\$317	\$284	\$354	\$321
Non-Labor	\$214	\$235	\$89	\$317	\$529	\$364	\$529	\$364
Serv Order Team	\$341	\$374	\$251	\$624	\$846	\$648	\$883	\$685

15 Source: 2009-2013 data from Ex. SDG&E-10-WP-R, p.116. 2014 adjusted-recorded expenses from
16 Sempra email to ORA dated March 13, 2015.

17 SDG&E developed its TY forecast of \$0.883 million by using 2013 base year
18 recorded expenses plus an incremental increase of \$0.037 million for the increased
19 manning of 8 Service Order Planners.

20 **B. ORA’s Analysis**

21 ORA developed its corresponding TY forecast of \$0.685 million by using 2014
22 base year recorded expenses plus an incremental increase of \$0.037 million. ORA’s
23 methodology is similar to that of SDG&E, but utilizes the most recent recorded
24 expenses from 2014 as the base year instead of 2013 recorded expenses.

1 **VIII. GRID OPERATIONS**

2 **A. Overview of SDG&E’s Request**

3 Grid Operations consists of the Electronic Control Technician (ECT) group,
4 which is responsible for the overall installation, testing, calibration, and maintenance
5 for all Supervisory, Control & Data Acquisition (SCADA) equipment. SDG&E
6 forecasts \$0.348 million for Grid Operations, which is an increase of \$0.200 million
7 or 135.14% over 2013 recorded expenses of \$0.148 million and an increase of
8 \$0.214 million or 159.70% over 2014 recorded expenses of \$0.134 million. ORA’s
9 corresponding TY forecast is \$0.226 million, which is \$0.122 million lower than
10 SDG&E’s forecast.

11 Table 5-10
12 Grid Operations Expenses
13 2009-2014 Recorded and 2016 Forecast
14 (in Thousands of 2013 Dollars)

Description	2009	2010	2011	2012	2013	2014	SDG&E 2016	ORA 2016
Labor	\$321	\$256	\$290	\$258	\$92	\$102	\$292	\$200
Non-Labor	\$1	\$6	\$9	\$26	\$57	\$32	\$57	\$26
Grid Operations	\$322	\$262	\$299	\$284	\$148	\$134	\$348	\$226

15 Source: 2009-2013 data from Ex. SDG&E-10-WP-R, p. 48. 2014 adjusted-recorded expenses from
16 Sempra email to ORA dated March 13, 2015.

17 SDG&E developed its TY forecast of \$0.348 million by using 2013 base year
18 recorded expenses plus incremental costs of \$0.200 million for two additional
19 electronic control technicians (ECTs)

20 **B. ORA’s Analysis**

21 There is insufficient evidence to support SDG&E’s request for two additional
22 electronic control technicians. SDG&E does not provide any workload analyses to
23 justify the need for these positions, instead asserting that the increase in ECTs²³ is

²³ Electronic Control Technician (Ex.SDG&E-10-R, p. JTW-33).

1 needed to maintain the increasing number of SCADA RTU's.²⁴ SDG&E states:
2 "From 2011 to year-end 2013, the ECT group has seen an increase in work load of
3 approximately 15% from new SCADA sites. All of this new activity... supports the
4 need to increase the Grid Operations workforce."²⁵ Despite SDG&E's claim that the
5 work load is increasing, costs have been declining since 2011. SDG&E forecast
6 spending \$0.248 million in 2014, but only spent \$0.134 million, which is SDG&E's
7 lowest expense level of the past six years (2009-2014).²⁶

8 ORA conducted discovery to better understand the downward trend in costs.
9 In response to ORA's discovery, SDG&E stated: "There was a significant decrease
10 in labor charges in 2013 as a result of a higher proportion of time allocated to capital
11 and transmission refundable work from the RTU technicians."²⁷ ORA also asked
12 about SDG&E's forecast increase of \$0.100 million for an additional ECT in 2014.
13 SDG&E responded: "Yes, an additional ECT was hired and employed seven months
14 in 2014. This additional cost was \$8,191. This is due to more capital and
15 transmission work than forecasted."²⁸ Although the ECT was not employed for the
16 full year, 2014 costs of \$8,191 are far below SDG&E's forecast of \$100,000. There
17 is little correlation between workload and costs recorded as O&M expenses.
18 SDG&E's responses indicate that costs are allocated more to capital and
19 transmission than SDG&E forecasted, and there is no evidence that this will change.

20 SDG&E has never spent the amount of money being proposed in the current
21 GRC, and historical trends show that costs are decreasing rather than increasing.
22 ORA developed its corresponding TY forecast of \$0.226 million by using a 5-year

²⁴ Supervisory, Control & Data Acquisition Remote Terminal Units (Ex.SDG&E-10-R, p. JTW-33). SDG&E response to ORA data request ORA-SDG&E-074-EJ1, Q.10.

²⁵ Ex. SDG&E-10-R, p. JTW-34.

²⁶ SDG&E's 2014 forecast from Ex. SDG&E-10-WP-R, p. 48. 2014 adjusted-recorded expenses from Sempra email to ORA dated March 13, 2015.

²⁷ SDG&E response to ORA data request ORA-SDG&E-084-EJ1, Q.1.

²⁸ SDG&E response to ORA data request ORA-SDG&E-084-EJ1, Q.4.

1 average (2010-2014) of historical recorded expenses, which is higher than both
 2 2014 recorded expenses of \$0.134 million and the 3-year average (2012-2014) of
 3 historical recorded expenses which is \$0.189 million.

4 **IX. SUBSTATION CONSTRUCTION AND MAINTENANCE**

5 **A. Overview of SDG&E’s Request**

6 Substation Construction and Maintenance is responsible for the installation
 7 and maintenance of SDG&E’s distribution substations, as well as the installation and
 8 maintenance of control functions for overhead and underground distribution field
 9 devices. SDG&E forecasts \$6.912 million for Substation Construction and
 10 Maintenance, which is an increase of \$1.016 million or 17.23% million over 2013
 11 recorded expenses of \$5.896 million and an increase of \$1.565 million or 29.27%
 12 over 2014 recorded expenses of \$5.347 million. ORA’s corresponding TY forecast
 13 is \$5.622 million, which is \$1.290 million less than SDG&E’s forecast.

14 Table 5-11
 15 Substation Construction and Maintenance Expenses
 16 2009-2014 Recorded and 2016 Forecast
 17 (in Thousands of 2013 Dollars)

Description	2009	2010	2011	2012	2013	2014	SDG&E 2016	ORA 2016
Labor	\$5,201	\$5,065	\$5,193	\$4,321	\$3,734	\$3,420	\$4,730	\$3,577
Non-Labor	\$2,698	\$2,229	\$2,781	\$2,370	\$2,162	\$1,927	\$2,182	\$2,045
Substation Constr and Maintenance	\$7,898	\$7,294	\$7,974	\$6,692	\$5,896	\$5,347	\$6,912	\$5,622

18 Source: 2009-2013 data from Ex. SDG&E-10-WP-R, p. 17. 2014 adjusted-recorded expenses from
 19 Sempra email to ORA dated March 13, 2015.

20 SDG&E developed its TY forecast by using 2013 base year recorded
 21 expenses plus an incremental increase of \$1.016 million for the activities listed
 22 below.
 23

1
2
3

Table 5-12
Incremental Increases for TY 2016
(in Thousands of 2013 Dollars)

	Labor	Non-labor
NERC Project Manager	22	
Apprentice Electricians (10)	294	
Increased labor hours associated with mandated proactive and reactive maintenance compliance regulations	200	
Increased labor hours associated with added infrastructure of new substations	300	
Additional employees for new NERC CIP security regulations	120	
2 Equipment Operator Washers, 1 Equipment Operator Construction, and 1 Lineman	60	
Tools, Equipment and FR shirts		20
2016 Total Incremental	996	20

4 Source: Ex. SDG&E-10-WP-R, p. 33.

5 **B. ORA's Analysis**

6 SDG&E does not provide sufficient evidence to justify an increase of \$1.564
7 million over 2014 recorded expenses. In response to ORA's discovery on
8 "Additional employees for new NERC CIP security regulations" and "2 Equipment
9 Operator Washers, 1 Equipment Operator Construction, and 1 Lineman," SDG&E
10 stated:²⁹

11 "In researching this data request response, SDG&E has determined that this
12 activity is 100% transmission (non-GRC), and therefore the cost for V&S of
13 this activity should not have been included as an incremental upward
14 pressure. This will be corrected at hearings."
15

16 SDG&E's adjustments reduce its TY forecast by \$0.180 million.

17
18 SDG&E forecasts an increase of \$0.300 million for "increased labor hours
19 associated with added infrastructure of new substations," an increase of \$0.200
20 million for "increased labor hours associated with mandated and reactive
21 maintenance compliance regulations," and an increase of \$0.294 million for "10
22 Apprentice Electricians." For all increases, ORA asked:

1 “Please clarify if this is a routine and ongoing work activity... Explain clearly
2 how the forecasted work or positions are different from base load on-going
3 work or positions. Provide all workload analyses conducted by SDG&E that
4 justify an increase over current levels of funding. If SDG&E did not conduct a
5 workload analysis, please explain why not.”
6

7 SDG&E’s response for increased labor hours associated with added infrastructure of
8 new substations:³⁰

9 “This is a routine maintenance activity. With the added infrastructure of new
10 substations, the equipment maintenance procedures base is increased and
11 additional labor hours are require in order to remain compliant with SDG&E
12 maintenance programs, CPUC and other regulatory programs...”
13

14 SDG&E’s response for increased labor hours associated with mandated and
15 reactive maintenance compliance regulations:³¹

16 “With the implementation of General Order (G.O.) 174, the CPUC has
17 mandated that California utilities formulate uniform requirements for
18 substation inspection programs, the application of which will promote the
19 safety of workers and the public and service reliability. These new rules
20 require mandatory substation inspections, annual documentation of the
21 substation inspection program, and annual reporting summarizing completed
22 and past due inspections with the CPUC. Compliance with the mandated
23 substation inspection program requires an increase in support staff to comply
24 with the inspection tracking and reporting process throughout the year and
25 compliance staff necessary to provide annual reports to the CPUC.
26 Additional substation maintenance will occur as the inspection program
27 continues to evolve and corrective maintenance follow-up activity increases,
28 to comply with the program requirements.”
29

30 SDG&E’s response for the 10 Apprentice Electricians:³²

31 “This is a routine and ongoing work activity. The apprentice electrician class
32 was reduced, partially due to the economic slowdown. At the time, SDG&E
33 felt that it had a sufficient workforce to maintain the system. Due to the loss

(continued from previous page)

²⁹ SDG&E response to ORA data request ORA-SDG&E-074-EJ1, Q.15, Q.16.

³⁰ SDG&E response to ORA data request ORA-SDG&E-074-EJ1, Q.14b.

³¹ SDG&E response to ORA data request ORA-SDG&E-074-EJ1, Q.13b.

³² SDG&E response to ORA data request ORA-SDG&E-074-EJ1, Q.12b.

1 of skilled, experienced substation electricians to retirement and bidding of
2 higher skilled positions, it is necessary to reinstate the training. It takes 3
3 years of apprenticeship training, plus an additional 2 years of field experience
4 as a journeyman electric, to be certified as a Qualified Electrical Worker. Due
5 to this lag, SDG&E is requesting incremental funding for this activity.”

6 All of SDG&E’s responses are vague and lack any form of quantitative
7 support. SDG&E does not conduct any workload analyses that show there is a
8 correlation between growing workload and SDG&E’s requests for additional funding
9 over routine and ongoing work activities. Historical trends, which show that overall
10 costs are decreasing rather than increasing, do not support SDG&E’s arguments
11 that workload is increasing or that additional O&M funding is needed.

12 In addition, SDG&E fails to provide historical costs for any of the activities for
13 which it is requesting incremental funding. For SDG&E’s request for “increased
14 labor hours associated with added infrastructure of new substation” and “increased
15 labor hours associated with mandated proactive and reactive maintenance
16 compliance regulation,” SDG&E states: “Historical costs for this work activity are
17 embedded in total Substation Construction and Maintenance Expenses and cannot
18 be broken out separately.”³³ For SDG&E’s request for 10 new Apprentice
19 Electricians, SDG&E states: “Historical labor expenses for the Apprentice
20 Electricians are unavailable at this classification rotates quarterly between capital,
21 distribution and transmission accounts which track either maintenance or
22 construction activities.”³⁴

23 Because SDG&E does not isolate the work or associated costs embedded in
24 the base year, it is unclear how SDG&E can accurately forecast an incremental
25 increase in funding for these activities. It is also unclear under which account the
26 expenses will be recorded if they rotate “quarterly between capital, distribution and
27 transmission accounts.” SDG&E’s failure to identify the difference between base

³³ SDG&E response to ORA data request ORA-SDG&E-074-EJ1, Q.13a, and Q.14a.

³⁴ SDG&E response to ORA data request ORA-SDG&E-074-EJ1, Q.12a.

1 business and incremental work makes it difficult for ORA to evaluate one-time costs
2 and embedded work.

3 Historical recorded expenses for Substation Construction and Maintenance
4 have been declining since 2011. SDG&E forecast spending \$7.147 million in 2014,
5 but only spent \$5.347 million.³⁵ SDG&E overstated its forecast by \$1.800 million.
6 SDG&E's TY 2016 forecast is also overstated. Despite SDG&E's downward trend in
7 expenses, SDG&E's TY 2016 forecast is \$1.565 million greater than 2014 recorded
8 expenses.

9 ORA developed its TY forecast of \$5.622 million by using a 2-year average of
10 historical expenses. It is not appropriate to use a 3-year (2012-2014) or 5-year
11 (2010-2014) average since "during the 2012 business year, the SCADA group,
12 consisting of 19 employees, transferred from the Substation C&O group to System
13 Protection as part of the department reorganization."³⁶

14 **X. ELECTRIC DISTRIBUTION OPERATIONS**

15 **A. Overview of SDG&E's Request**

16 Electric Distribution Operations consists of work associated with the Electric
17 Distribution Operations Control Center. Control Center personnel have overall
18 operational control of the electric distribution system for planned and unplanned
19 work. SDG&E forecasts \$15.315 million for Electric Distribution Operations, which is
20 an increase of \$4.377 million or 40.02% over 2013 recorded expenses of \$10.938
21 million and an increase of \$3.654 million or 31.34% over 2014 recorded expenses of
22 \$11.661 million. ORA's corresponding TY forecast is \$11.377 million, which is
23 \$3.938 million lower than SDG&E's forecast.
24

³⁵ SDG&E's 2014 forecast from Ex. SDG&E-10-WP-R, p. 17. 2014 adjusted-recorded expenses from Sempra email to ORA dated March 13, 2015.

³⁶ SDG&E response to ORA data request ORA-SDG&E-033-EJ1, Q.37.

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Table 5-13
Electric Distribution Operations Expenses
2009-2014 Recorded and 2016 Forecast
(in Thousands of 2013 Dollars)

Description	2009	2010	2011	2012	2013	2014	SDG&E 2016	ORA 2016
Labor	\$2,791	\$2,880	\$2,518	\$3,167	\$3,790	\$3,331	\$5,704	\$3,429
Non-Labor	\$7,507	\$6,564	\$5,913	\$8,364	\$7,148	\$8,330	\$9,611	\$7,947
EDO	\$10,297	\$9,444	\$8,430	\$11,531	\$10,938	\$11,661	\$15,315	\$11,377

5 Source: 2009-2013 data from Ex. SDG&E-10-WP-R, p. 43. 2014 adjusted-recorded expenses from
6 Sempra email to ORA dated March 13, 2015.

7 SDG&E uses a 3-year linear (2011-2013) forecast to develop its TY forecast
8 of \$15.315 million.

9 **B. ORA's Analysis**

10 SDG&E's forecast is \$4.377 million over 2013 recorded costs of \$10.938
11 million. ORA conducted discovery to see if SDG&E could quantify or explain its
12 need for \$4.377 million in incremental funding. Specifically, ORA asked SDG&E to
13 link its cost drivers to the forecast amount of funding.

14 ORA asked:³⁷

15 "SDG&E lists the cost drivers for Electric Distribution Operations on pages 41-
16 43. Does SDG&E directly link its cost drivers to the amount of its forecasted
17 increase in expenses? If so, please identify the forecasted cost driver, the
18 associated expenses, and how those expenses were derived."
19

20 SDG&E's response:

21 "No. SDG&E's forecast is based on the escalation for 2013 costs and did not
22 include any adjustments."
23

24 ORA asked:³⁸

25 "Did SDG&E conduct work-load analyses to justify its increase of \$4.377
26 million over 2013 recorded costs of \$10.938 million? If yes, please provide all
27 analyses and studies; include supporting calculations, documentations, and

³⁷ SDG&E response to ORA data request ORA-SDG&E-002-EJ1, Q.22.

³⁸ SDG&E response to ORA data request ORA-SDG&E-002-EJ1, Q.23.

1 explanations. If SDG&E did not conduct any work-study analyses, please
2 explain why not.”

3

4 SDG&E’s response:

5 “SDG&E did not conduct a work-study analysis. The increase of \$4.3M was
6 based on a 3-year linear forecast, because this forecast methodology is the
7 most representative of expected future operations.”

8

9 SDG&E fails to provide *any* correlation between forecast costs drivers and the
10 forecast incremental increase of \$4.377 million, nor did SDG&E conduct any
11 workload analyses that might justify such a large funding request.

12 Because SDG&E did not quantify its cost drivers, ORA conducted additional
13 discovery on SDG&E’s methodology in order to better understand how SDG&E
14 justifies an increase of \$4.377 million over 2013 recorded costs.

15 ORA asked:³⁹

16 “Historical costs for Electric Distributions Operations have fluctuated
17 consistently for the past five years, with a 3-year average of \$10.300 million
18 and a 5-year average of \$10.128 million. In the current GRC, SDG&E is
19 forecasting \$15.315 million for its test year. Please explain why SDG&E
20 chose to use a 3-year linear forecast over alternative methodologies,
21 including a 5-year linear forecast.”

22

23 SDG&E’s response:

24 “The 3-year linear forecast was chosen due to the creation of Business
25 Solutions and Training Team along with filling vacancies within the control
26 center, both done in 2013. SDG&E started an Apprentice Distribution System
27 Operators (ADSO) class that is a 2-year training program. The 3-year linear
28 forecast is the most representative of future operations. The other forecast
29 methodologies do not account for these recent developments and therefore
30 understate the level of support required to maintain them.”

31

32 ORA asked SDG&E questions about its “recent developments,” such as the
33 creation of the Business Solutions and Training team.

34

³⁹ SDG&E response to ORA data request ORA-SDG&E-002-EJ1, Q.21.

1 ORA asked:⁴⁰

2 “On WP page 41, SDG&E states: ‘Please elaborate on the creation of the
3 Business Solutions and Training Team and the Geographic Information
4 Services – Business Solution Teams.’ Identify when the two teams were
5 created and if all expenses for the teams are charged to Electric Distribution
6 Operations. Identify all historical costs for the two teams that were charged to
7 this account and identify all forecasted costs for the test year.”

8

9 SDG&E’s response:

10 “The Business Solutions and Training Team, created in 2013, supports
11 training, ensures compliance, develops processes, policies and procedures,
12 facilitates collaborative efforts and aligns projects with corporate business
13 practices. There are six employees in the group charging 30% Distribution
14 O&M, with the 2013 labor costs equaling \$208k representing 1.8FTE. The
15 2013 non-labor costs charged to this account equal \$14k. For test year 2016,
16 this group is not forecasting incremental funding.

17

18 The Geographic Information Services - Business Solutions Team was created
19 in 2013... The cost for this group is not included under Electric Distribution
20 Operations. This group can be found under Information Management
21 Support (Exh No: SDG&E-10-WP-R/Witness: J. Woldemariam page 135).
22 Pre-2013 historical costs for both of these groups went to an Information
23 Technology capital budget.”

24 SDG&E stated that “the 3-Yr Linear Forecast was chosen due to the creation
25 of the Business Solutions and Training Team and the Geographic Information
26 Services – Business Solution Teams, as well as filling vacancies within the control
27 center.” However, the above data request response shows there is no correlation
28 between a 3-year linear forecast and the creation of either business teams.

29 SDG&E’s response states: “For the test year 2016, this group [Business Solutions
30 and Training Team] is not forecasting incremental funding,” and “The cost for the
31 [Geographic Information Services - Business Solutions Team] is not included under
32 Electric Distribution Operations.”⁴¹ SDG&E explicitly states that it is not forecasting
33 incremental funding for the Business Solutions team recorded under ERO. If

⁴⁰ SDG&E response to ORA data request ORA-SDG&E-002-EJ1, Q.24as.

⁴¹ SDG&E response to ORA data request ORA-SDG&E-002-EJ1, Q.24a.

1 SDG&E expects costs for the Business Solution team to increase in the test year, it
2 does not state so or provide an explanation. Therefore, it is unclear how “the 3-Yr
3 Linear Forecast was chosen due to the creation of the Business Solutions and
4 Training Team and the Geographic Information Services – Business Solution
5 Teams, as well as filling vacancies within the control center.” SDG&E’s explanations
6 and responses are contradictory.

7 In regards to “filling vacancies within the control center,” SDG&E states that
8 “there were ten vacancies for each of the years of 2011 through 2013... all related to
9 the Distribution System Operator (DSO) position.”⁴² For three years, SDG&E has
10 not prioritized filling these vacancies. There is no indication that workload is
11 changing and that SDG&E will fill the ten positions left vacant since 2011. There is
12 also no correlation between the exact amount of funding needed to fill the vacancies
13 and the exact amount of incremental funding being requested by SDG&E.

14 ORA also examined SDG&E’s non-labor forecast. SDG&E states that the “3-
15 Yr Linear Forecast [for non-labor costs] was costs due to the increasing
16 maintenance costs for both hardware and software and exempt materials.”⁴³
17 SDG&E does not elaborate on, or provide any workload analyses, to support this
18 vague request.

19 Despite ORA’s extensive discovery, SDG&E fails to provide any evidence to
20 support its methodology or increase in funding. SDG&E never provides clarification
21 on why a 3-year linear forecast “is the most representative of future operations,” nor
22 does SDG&E fully explain or quantify said “future operations.” Most significantly,
23 SDG&E does not once explain why costs are expected to increase at the same rate
24 as they have from 2011 to 2013. Work activities that caused an increase during the
25 last 3 years (e.g., the creation of the Business Solutions and Training Team) are
26 now ongoing and embedded in historical expenses. They are not representative of

⁴² SDG&E response to ORA data request ORA-SDG&E-002-EJ1, Q.24c.

⁴³ Ex. SDG&E-10-WP-R, p. 42.

1 future cost increases. There are no trends indicating that a 3-year linear forecast
2 best represents future operations.

3 In the following table ORA utilizes several popular methodologies SDG&E
4 could have used to produce the TY 2016 forecast (before 2014 data was available).
5 Most methodologies produce similar and rational results. SDG&E's methodology is
6 the most arbitrary and far-reaching, but conveniently maximizes SDG&E's forecast
7 funding without SDG&E having to provide any quantifiable evidence such as
8 itemized costs or workload analyses.

9 Table 5-14
10 TY 2016 Forecasts Utilizing Different Methodologies
11 (in Thousands of 2013 Dollars)

Methodology	2016 Forecast
2013 Base Year	\$10,938
Highest Recorded Year (2011)	\$11,531
3-Year Average (2010-2013)	\$10,300
5-Year Average (2009-2013)	\$10,128
3-Year Linear Forecast	\$15,315
5-Year Linear Forecast	\$11,813

12

13 SDG&E only spent \$11.661 million in 2014, which is \$1.146 million less than
14 SDG&E's 2014 forecast of \$12.807 million.⁴⁴ SDG&E's expenses are not increasing
15 at the rate which SDG&E had forecast. Instead, costs have remained relatively
16 stable during the past three years (2012-2014). Moreover, SDG&E has never spent
17 the amount of money that is being proposed in the TY.

18 ORA developed its TY forecast of \$11.377 million by using a 3-year average
19 of historical costs (2012-2014). ORA's forecast is greater than a 5-year average
20 (2010-2014) of historical recorded expenses which is \$10.401 million, and it is
21 sufficient to address TY expenses.

⁴⁴ SDG&E's 2014 forecast from Ex. SDG&E-10-WP-R, p. 43. 2014 adjusted-recorded expenses from Sempra email to ORA dated March 13, 2015.

1 **XI. DISTRIBUTION OPERATIONS/ENTERPRISE GEOGRAPHIC**
 2 **INFORMATION SYSTEM STANDARDS (EGISS)**

3 **A. Overview of SDG&E’s Request**

4 The Enterprise GIS Services (EGISS) personnel are responsible for providing
 5 accurate real-time GIS Mapping of all assets in the fields related to electric
 6 distribution, substation, and telecommunication. SDG&E forecasts \$2.647 million for
 7 Distribution Operations/EGISS expenses, which is an increase of \$0.556 million or
 8 26.59% over 2013 recorded expenses of \$2.091 million and an increase of \$0.722
 9 million or 37.51% over 2014 recorded expenses of \$1.925 million. ORA’s
 10 corresponding TY forecast is \$1.996 million, which is \$0.651 million lower than
 11 SDG&E’s forecast.

12 Table 5-15
 13 Distribution Operations / EGISS Expenses
 14 2009-2014 Recorded and 2016 Forecast
 15 (in Thousands of 2013 Dollars)

Description	2009	2010	2011	2012	2013	2014	SDG&E 2016	ORA 2016
Labor	\$1,344	\$1,403	\$1,445	\$1,395	\$1,171	\$1,123	\$1,175	\$1,230
Non-Labor	\$67	\$118	\$133	\$576	\$919	\$802	\$1,472	\$766
Distr Op / EGISS	\$1,411	\$1,521	\$1,578	\$1,971	\$2,091	\$1,925	\$2,647	\$1,996

16 Source: 2009-2013 data from Ex. SDG&E-10-WP-R, p. 140. 2014 adjusted-recorded expenses from
 17 Sempra email to ORA dated March 13, 2015.

18 SDG&E developed its TY forecast of \$2.647 million by using a 5-year linear
 19 (2009-2013) forecast plus an incremental increase of \$0.028 to pay for GIS system
 20 maintenance.

21 **B. ORA’s Analysis**

22 SDG&E only spent \$1.925 million in 2014, which is \$0.400 million less than
 23 SDG&E’s 2014 forecast of \$2.325 million.⁴⁵ Given 2014 data, there is no rationale
 24 behind SDG&E’s use of a 5-year linear forecast. SDG&E’s expenses are not
 25 increasing at the rate SDG&E had forecasted. Instead, historical expenses have

⁴⁵ SDG&E’s 2014 forecast from Ex. SDG&E-10-WP-R, p. 142. 2014 adjusted-recorded expenses from Sempra email to ORA dated March 13, 2015.

1 remained relatively stable for the past three years (2012-2014). ORA developed its
 2 TY forecast of \$1.996 million by using a 3-year (2012-2014) average of historical
 3 expenses, which is higher than both 2014 recorded expenses of \$1.925 million and
 4 a 5-year average (2010-2014) of historical expenses which is \$1.817 million. ORA's
 5 forecast is reasonable given historical trends.

6 **XII. KEARNY OPERATIONS SERVICES**

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

8 Kearny Operations Services is responsible for the testing and repairing of
 9 SDG&E's equipment. SDG&E forecasts \$2.239 million for Kearny Operations
 10 Services, which is an increase of \$0.401 million or 21.82% over 2013 recorded
 11 expenses of \$1.838 million and an increase of \$0.730 million or 48.38% over 2014
 12 recorded expenses of \$1.509 million. ORA's corresponding TY forecast is \$1.736
 13 million, which is \$0.503 million lower than SDG&E's forecast.

14 Table 5-16
 15 Kearny Operations Services Expenses
 16 2009-2014 Recorded and 2016 Forecast
 17 (in Thousands of 2013 Dollars)

Description	2009	2010	2011	2012	2013	2014	SDG&E 2016	ORA 2016
Labor	\$1,709	\$1,633	\$1,711	\$1,669	\$1,722	\$1,330	\$1,983	\$1,574
Non-Labor	\$300	\$208	\$188	\$192	\$116	\$179	\$256	\$162
Kearny Op Svcs	\$2,009	\$1,840	\$1,898	\$1,861	\$1,838	\$1,509	\$2,239	\$1,736

18 Source: 2009-2013 data from Ex. SDG&E-10-WP-R, p. 5. 2014 adjusted-recorded expenses from
 19 Sempra email to ORA dated March 13, 2015.

20 SDG&E developed its labor forecast using 2013 base year recorded
 21 expenses plus an incremental increase of \$0.261 million for the transfer of
 22 employees into the Kearny Operations Services group during the period of 2013 and
 23 2014 and to reflect a shift in charging allocations from Refundable to O&M due to
 24 that transfer.⁴⁶ SDG&E developed its non-labor forecast using a 4-year average as

⁴⁶ SDG&E response to ORA data request ORA-SDG&E-002-EJ1, Q.26.

1 the base year plus an incremental increase of \$0.080 million to comply with the
2 Environmental Protection Agency’s (“EPA”)s) and California Air Resources Board’s
3 (“CARB”)s) SF₆ regulations.

4 **B. ORA’s Analysis**

5 SDG&E is asking for an incremental increase of \$0.261 million over 2013
6 recorded labor expenses. SDG&E states: “SDG&E’s request of \$261k represents
7 the transfer of employees into the Kearny Operations Services group during the
8 period of 2013 and 2014. It also reflects a shift in charging allocations from
9 Refundable to O&M due to that transfer.”⁴⁷ Despite SDG&E’s above assertion,
10 expenses decreased in 2013 and 2014. SDG&E spent \$1.509 million in 2014, which
11 is \$0.650 million less than SDG&E’s forecast of \$2.159 million.⁴⁸ SDG&E
12 overstated its 2014 forecast and fails to show how the transfer of employees into the
13 Kearny Operations Services group has had an impact on expense levels.

14 ORA developed its TY forecast of \$1.736 million by using a 3-year average
15 (2012-2014) of historical recorded expenses. ORA’s forecast is \$0.227 million
16 greater than 2014 recorded expenses of \$1.509 million and is sufficient to address
17 emerging TY expenses including compliance with EPA and CARB regulations.

18 **XIII. CONSTRUCTION SERVICES**

19 **A. Overview of SDG&E’s Request**

20 Construction Services provides oversight of all construction performed by
21 contractors on Electric Distribution. SDG&E forecasts \$18.865 million for
22 Construction Services, which is an increase of \$13.639 million or 260.98% over
23 2013 recorded expenses of \$5.226 million and an increase of \$13.334 million or

⁴⁷ SDG&E response to ORA data request ORA-SDG&E-002-EJ1, Q.26.

⁴⁸ SDG&E’s 2014 forecast from Ex. SDG&E-10-WP-R, p. 5. 2014 adjusted-recorded expenses from Sempra email to ORA dated March 13, 2015.

1 241.08% over 2014 recorded expenses of \$5.531 million. ORA's corresponding TY
 2 forecast is \$11.667 million, which is \$7.198 million lower than SDG&E's forecast.

3 Table 5-17
 4 Construction Services Expenses
 5 2009-2014 Recorded and 2016 Forecast
 6 (in Thousands of 2013 Dollars)

Description	2009	2010	2011	2012	2013	2014	SDG&E 2016	ORA 2016
Labor	\$229	\$242	\$228	\$373	\$468	\$358	\$308	\$334
Non-Labor	\$7,257	\$5,044	\$4,284	\$5,648	\$4,757	\$5,173	\$18,557	\$11,333
Constr Services	\$7,486	\$5,286	\$4,512	\$6,021	\$5,226	\$5,531	\$18,865	\$11,667

7 Source: 2009-2013 data from Ex. SDG&E-10-WP-R, p. 102. 2014 adjusted-recorded expenses from
 8 Sempra email to ORA dated March 13, 2015.

9 SDG&E developed its TY forecast by using a 5-year average (2009-2013) of
 10 historical expenses plus incremental funding of \$13.639 million for the work activities
 11 listed below.

12 Table 5-18
 13 Incremental Increases for TY2016
 14 (in Thousands of 2013 Dollars)

	Labor	Non-labor
Wildfire Strike Team (Contract Firefighters)		252
Restore O&M portion of air-crane budget to contract level		353
Non-productive labor for additional in-house construction contract administration and support		354
O&M associated with capital construction work completed primarily in association with the Fire Risk Mitigation (FiRM) projects		12,200
2016 Total Incremental		\$13,639

15 Source: Ex. SDG&E-10-WP-R, p. 105.

16 B. ORA's Analysis

17 ORA conducted discovery to better understand how SDG&E justified an
 18 incremental increase of \$13.639 million over 2013 recorded expenses of \$5.226
 19 million. ORA asked SDG&E how it derived its forecast of \$12.200 million in new
 20 project expenses for "O&M associated with the capital construction work completed
 21 primarily in association with the Fire Risk Mitigation (FiRM projects)."

1 ORA asked:⁴⁹

2 “Please show precisely how SDG&E derived the exact forecasted cost and
3 exact forecasted number of FTEs for this work activity. Provide all supporting
4 calculations, documentations, explanations, and work-study analyses used to
5 derive the forecast. If SDG&E did not conduct a work-study analysis, please
6 explain why not. If there is no precise basis for an individual estimate or if the
7 basis is subjective, please state so and explain SDG&E’s reasoning for its
8 estimate.”

9
10 SDG&E’s response:

11 “O&M impact of FiRM activities is based on a percentage of the expected
12 Capital spend for specific grouping of activities within the project.”
13

Projected FiRM Costs	TY2016 (\$000)
Combo: Wire replacement and selective hardening (2% associated with O&M)	\$300
Projects from RIRAT: Hardening, Reconductor, Long Spans (4.5% associated O&M)	\$2,300
RIRAT Projects and Pole Loading (4.5% associated O&M plus pole loading O&M cost)	\$9,600
TOTAL	\$12,200

14

15 ORA also asked:⁵⁰

16 “Is SDG&E’s O&M expense forecast directly related to its capital forecast? If
17 yes, please provide the workpapers detailing the link between SDG&E’s O&M
18 expenses and capital expenses. Provide all supporting calculations,
19 documentations, explanations.”
20

21 SDG&E’s response:

22 “The referenced forecast is directly related to specific activities, as specified in
23 the answer to question #30b.”

24 SDG&E provides a breakdown of forecast O&M FiRM expenses, which it
25 claims are directly related to the specific capital activities listed in the table above.
26 However, SDG&E’s responses do not provide the corresponding capital forecasts
27 from which the O&M forecasts are derived or show how the aforementioned capital

⁴⁹ SDG&E response to ORA data request ORA-SDG&E-002-EJ1, Q.30b.

⁵⁰ SDG&E response to ORA data request ORA-SDG&E-002-EJ1, Q.30c.

1 forecasts were developed. ORA asked SDG&E to provide a direct reference to the
2 capital forecasts to which the O&M expenses listed above are “directly related.”

3 ORA asked:⁵¹

4 “In SDG&E’s response to ORA-SDG&E-DR-002-EJ1 Question 30, SDG&E
5 provides projected FiRM costs and states: ‘O&M impact of FiRM activities is
6 based on a percentage of the expected Capital spend[ing] for specific
7 grouping of activities within the project.’
8

9 Please provide the *exact* calculations that were used to develop SDG&E’s
10 projected FiRM costs of \$0.300 million, \$2.400 million, and \$9.600 million.
11 Include the *exact* capital forecasts that were used to develop these O&M
12 expenses, and provide the page number and location that the capital
13 forecasts can be found in the capital testimony. For example, identify the
14 location of the capital forecasts in SDG&E’s testimony for ‘RiRAT Projects
15 and Pole Loading’ and show how the identified capital forecasts were used to
16 derive the projected costs of \$9.600 million.”
17

18 SDG&E’s response:

19 “As referenced in the response to ORA-SDG&E-002-EJ1 Question 30, the
20 O&M impact of FiRM activities is based on a percentage of the expected
21 Capital spend for specific grouping of activities within the project.
22

Projected FiRM Costs	TY2016 (\$000)
Combo: Wire replacement and selective hardening (2% associated with O&M)	\$300
Projects from RIRAT: Hardening, Reconductor, Long Spans (4.5% associated O&M)	\$2,300
RIRAT Projects and Pole Loading (4.5% associated O&M plus pole loading O&M cost)	\$9,600
TOTAL	\$12,200

23
24 These values are based on the associated O&M expenses in relation to the
25 combined value (directs + indirects) of Capital Budget codes 13247A and
26 14247A. (Please reference capital workpapers SDG&E-09-CWP/Witness: J.
27 Jenkins pages 756 and 789.)
28

29 A portion of the forecasted O&M costs are based on a percentage of the total
30 direct and indirect capital costs for the planned capital work. For 2016, the
31 total O&M impact was based on an initial estimate of \$110M total capital
32 spend (direct plus indirects).
33

⁵¹ SDG&E response to ORA data request ORA-SDG&E-088-EJ1, Q.1.

1 Additionally as discussed on page 783 of the reference capital workpapers,
 2 Phase 3 of FiRM will address the remaining poles in the Fire Threat Zone
 3 (approximately 40,000 poles). For this phase, the distribution facilities will be
 4 LiDAR (Light Detection And Ranging) surveyed and PLS-CADD models will
 5 be developed for analysis. While LiDAR and PLS-CADD will be used for the
 6 early phases of the project, in this case it is being used for analysis and for
 7 capital improvement work. The upfront data acquisition and 3-D modeling will
 8 be an O&M activity.

9
 10 The specific O&M calculations are as follows:
 11

Projected FiRM Costs	Capital \$ (direct + indirect	% O&M	TY2016 (\$000)
Combo: Wire replacement and selective hardening (2% associated with O&M)	\$15M	2%	\$300
Projects from RIRAT: Hardening, Reconductor, Long Spans (4.5% associated O&M)	\$50M	4.5%	\$2,300
RIRAT Projects and Pole Loading (4.5% associated O&M plus pole loading O&M cost)	\$45M	4.5%	\$2,025
LiDAR survey and PLS-CADD computer modelling and analysis (O&M)	N/A	Fixed estimate	\$7,575
TOTAL			\$12,200

12 There are multiple problems with SDG&E's forecast for O&M expenses
 13 associated with the FiRM projects. SDG&E has made it exceedingly difficult for
 14 ORA to evaluate its request for \$12.200 million in funding by providing inaccurate or
 15 incomplete information. When asked to provide and reference the exact capital
 16 forecasts that were used to develop SDG&E's corresponding O&M costs of \$0.300
 17 million, \$2.400 million, and \$9.600 million,⁵² SDG&E provided capital forecasts of
 18 \$15 million, \$50 million, and \$45 million.⁵³ SDG&E fails to show how it breaks down
 19 its total capital forecast into the specific activities and corresponding capital
 20 forecasts of \$15 million, \$50 million, and \$45 million provided in the above table, nor
 21 does SDG&E provide a reference to the capital testimony where the exact forecasts

⁵² Refer to the table on p.33, provided in SDG&E response to ORA data request ORA-SDG&E-088-EJ1, Q.1.

⁵³ SDG&E response to ORA data request ORA-SDG&E-088-EJ1, Q.1.

1 can be found. ORA could not locate the forecasts of \$15 million, \$50 million, and
2 \$45 million in SDG&E's capital testimony.

3 SDG&E also provided inconsistent responses for its breakdown of the
4 \$12.200 million forecast in response to ORA data requests ORA-SDG&E-002-EJ1,
5 Q.30b and ORA-SDG&E-088-EJ1, Q1. The former data request response neglected
6 to include the forecast of \$7.575 million for "LiDAR survey and PLS-CADD computer
7 modelling and analysis (O&M)" in its breakdown of FiRM project expenses, although
8 expenses associated with this activity constitute more than half of the projected
9 O&M FiRM costs. Despite SDG&E's original claim that "O&M impact of FiRM
10 activities is based on a percentage of the expected Capital spend[ing] for specific
11 grouping of activities within the project" and that "the referenced [O&M] forecast is
12 directly related to specific activities, as specified in the answer to question #30b," the
13 forecast for "LiDAR survey and PLS-CADD computer modelling and analysis (O&M)"
14 is a fixed O&M expense estimate that is *not* directly related to a capital forecast.
15 SDG&E's inconsistent and incomplete responses undermine the transparency and
16 legitimacy of its forecast. In addition, SDG&E provided no workpapers to support
17 the substantial amount of money associated with the O&M forecast for "LiDAR
18 survey and PLS-CADD computer modelling and analysis (O&M)." ORA asked
19 SDG&E to provide more information on how SDG&E derived its \$7.575 million
20 forecast for this work activity.

21 ORA asked:⁵⁴

22 "Please provide a detailed breakdown of SDG&E's forecast of \$7.575 million
23 for LiDAR survey and PLS-CADD computer modelling and analysis (O&M)
24 projected costs and show how each component of the forecast was derived."
25

26 SDG&E's response:

27
28 "SDG&E estimates that during 2016 it will complete Light Detection and
29 Ranging (LiDAR) survey and PLS-CADD computer modeling and analysis for
30 30,000 of the remaining poles in the Fire Threat Zone (FTZ). The remaining
31 poles will be completed in future years.

⁵⁴ SDG&E response to ORA data request ORA-SDG&E-088-EJ1 Supplemental, Q.1.

In order to analyze these poles and associated conductors, accurate 3-dimensional data needs to be gathered. This data is initially acquired through ground or aerial based LiDAR surveys which are processed using computer software to generate a 3-dimensional model for which engineering analysis can be readily performed. Much of this modeling and analysis is performed in PLS-CADD software or using other tools such as O-Calc software.

This overall process involves field work to prepare for the LiDAR surveys, the surveys themselves, model generation and engineering analysis. SDG&E anticipates that the results will show that a portion of the existing lines are acceptable and will need no or minor upgrades, while other portions will require capital upgrade work. The upfront data acquisition and 3-dimensional modeling and analysis will be an O&M activity.

SDG&E's estimate for this activity was developed based on a "per pole" equivalent unit cost for the primary activities associated with this effort.

2016 Incremental O&M LiDAR & Pole Loading Calculations				
O&M Cost Breakdown for line/structures in FTZ (30,000 poles)				
Est. Total O&M Cost				
Estimated Cost / Pole		Units (poles)	subtotal	Logic
Est. LiDAR / Survey	\$ 32.50	30,000	\$ 975,000.00	based on \$715 / Mile est assuming 22 poles / mile, wire included
Est. Fielding	\$ 25.00	30,000	\$ 750,000.00	based on approx 20 mins / pole @ \$75/Hr. bill rate
Est. LiDAR As Built Mapping	\$ 25.00	30,000	\$ 750,000.00	based on approx 20 mins / pole @ \$75/Hr. bill rate
Est. engng analysis/load calcs; PLS-CADD, O-Calc	\$ 170.00	30,000	\$ 5,100,000.00	based on approx 2 Hrs. / pole @ \$85/Hr. bill rate
Est. Total Cost / Pole	\$ 252.50		\$ 7,575,000.00	

SDG&E provides insufficient information to justify the \$7.575 million associated with "LiDAR survey and PLS-CADD computer modelling and analysis (O&M)." Despite ORA's request to "show how each component of the forecast was derived," SDG&E's explanations are lacking. SDG&E forecasts performing work on 30,000 units (poles) in the TY, but does not justify or provide its assessment of this timeline. It provides no evidence that it is capable of performing work at this rate, or that the proposed rate of work and the associated costs is practical for ratepayers. The "logic" that SDG&E provides in the above table to derive estimated cost per pole is also lacking. SDG&E does not explain how it derived vital statistics used to develop the estimated cost per pole such as costs per mile, poles per mile, minutes per pole, hourly bill rate, etc.

1 SDG&E is proposing a significant level of funding for a project with limited
2 historical data and insufficient workload analyses. Because SDG&E’s data request
3 responses are inconsistent and incomplete, its methodology is not transparent or
4 justified. ORA understands the importance of fire risk mitigation but is concerned
5 that SDG&E wants its ratepayers to fund a project that lacks both sufficient
6 quantitative studies and historical support. Notably, SDG&E forecast spending
7 \$1.200 million on O&M associated with FiRM projects in 2014, but only spent
8 \$387,526.⁵⁵ SDG&E’s overstated its 2014 forecast for FiRM by \$0.812 million.
9 SDG&E’s TY 2016 forecast for O&M associated with FiRM is also overstated.
10 ORA’s corresponding TY forecast for FiRM O&M expenses is \$6.100 million, which
11 is half of SDG&E’s forecast. The increase in funding which ORA recommends will
12 help SDG&E address emerging expenses associated with fire risk mitigation without
13 excessively burdening ratepayers.

14 ORA also opposes SDG&E’s request for increased funding for “non-
15 productive labor for additional in-house construction contract administration and
16 support” and the “air-crane budget.” These costs are already embedded in a 5-year
17 average of historical expenses.

18 ORA developed its TY forecast of \$11.667 million by using a 5-year average
19 (2010-2014) of historical expenses plus incremental funding of \$6.352 million for the
20 Wildfire Strike Team and ORA’s adjusted O&M FiRM costs. The following table
21 illustrates ORA’s adjusted incremental increases for the TY.
22

⁵⁵ SDG&E’s 2014 forecast from Ex. SDG&E-10-WP-R, p. 104. 2014 recorded expenses (unadjusted) from SDG&E response to ORA data request ORA-SDG&E-092-EJ1, Q.1.

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Table 5-19
ORA and SDG&E's Incremental Increases for TY2016
(in Thousands of 2013 Dollars)

	SDG&E TY 2016	ORA TY 2016
Wildfire Strike Team (Contract Firefighters)	252	252
Restore O&M portion of air-crane budget to contract level	353	0
Non-productive labor for additional in-house construction contract administration and support	354	0
O&M associated with capital construction work completed primarily in association with the Fire Risk Mitigation (FiRM) projects	12,200	6,100
2016 Total Incremental	\$13,639	\$6,352

4

5 ORA's TY forecast of \$11.667 million is \$6.441 million greater than 2013
6 recorded expenses of \$5.226 million and \$6.136 million greater than 2014 recorded
7 expenses of \$5.531 million.

8 **XIV. VEGETATION MANAGEMENT – TREE TRIMMING**

9 **A. Overview of SDG&E's Request**

10 SDG&E's Vegetation Management (Tree Trimming) program manages tree
11 pruning, tree removal, and other vegetation management expenses. SDG&E
12 forecasts \$24.559 million for its Vegetation Management (Tree Trimming) program,
13 which is an increase of \$1.455 million or 6.30% over 2013 recorded expenses of
14 \$23.104 million and an increase of \$2.196 million or 9.82% over 2014 recorded
15 expenses of \$22.363 million. ORA's corresponding TY forecast is \$23.858 million,
16 which is \$0.701 million lower than SDG&E's forecast. SDG&E is also proposing a
17 two-way balancing account for Vegetation Management (Tree Trimming). ORA
18 objects to the use of a two-way balancing account for Vegetation Management (Tree
19 Trimming), but recommends that the Commission continue the use of a one-way
20 balancing account which will better protect ratepayers from cost variability.
21

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Table 5-20
Vegetation Management – Tree Trimming Expenses
2009-2014 Recorded and 2016 Forecast
(in Thousands of 2013 Dollars)

Description	2009	2010	2011	2012	2013	2014	SDG&E 2016	ORA 2016
Labor	\$980	\$957	\$975	\$906	\$912	\$1,273	\$1,061	\$1,030
Non-Labor	\$26,904	\$24,690	\$22,308	\$25,202	\$22,191	\$21,090	\$23,498	\$22,828
Tree Trimming	\$27,884	\$25,647	\$23,283	\$26,107	\$23,104	\$22,363	\$24,559	\$23,858

5 Source: 2009-2013 data from Ex. SDG&E-10-WP-R, p.72. 2014 adjusted-recorded expenses from
6 Sempra email to ORA dated March 13, 2015.

7 SDG&E developed its TY forecast of \$24.559 million by using a 3-year
8 average (2011-2013) of historical expenses plus an incremental increase of \$0.394
9 million for O&M expenses associated with the PowerWorkz Vegetation Management
10 system.

11 B. ORA’s Analysis

12 SDG&E requests a two-way balancing account for its Vegetation
13 Management Program. SDG&E states: “It is... reasonable to grant all of SDG&E’s
14 requested funding and two-way balancing account, particularly given the potentially
15 high upward cost pressures SDG&E is facing.”⁵⁶ In its testimony, SDG&E lists tree
16 pruning and removal, state of emergency resulting from drought conditions, and
17 regulatory and environmental compliance as the “potential upward cost pressure[s]”
18 affecting TY expenses.⁵⁷ ORA conducted discovery on SDG&E’s list of cost drivers.

19 ORA asked:⁵⁸

20 “SDG&E provides ‘State of Emergency Resulting from the Drought
21 Conditions’ as one of its cost drivers (page 54). Has SDG&E seen an
22 increase in costs in recent years due to drought conditions? If yes, please
23 show how this trend is reflected in historical expenses.”

⁵⁶ Ex. SDG&E-10-R, p. JTW-60.

⁵⁷ Ex. SDG&E-10-R, p. JTW-53.

⁵⁸ SDG&E response to ORA data request ORA-SDG&E-008-EJ1, Q.1.

1 SDG&E's response:

2 "While SDG&E does see impacts from the drought, we are not able to carve
3 out cost at this time specific to drought conditions. Tree trim costs are
4 tracked in general functional terms and there is no way to separate all the
5 individual drivers into individual components such as costs specifically
6 associated with the drought.
7

8 The inspectors and forester communicate that we do see impacts as a result
9 of the drought. Drought effects on trees are not always clearly visible from
10 the ground during inspection. Therefore, trim crews are required to perform a
11 visual inspection of all branches for defects on the line side while in the tree.
12 Work to mitigate these defects has cost impacts, as crew production is
13 slowed and forester review and approval to perform the additional work is
14 required. In addition, many drought stricken trees result in mortality as a
15 secondary effect such as beetle and other insect damage. Oaks, Pines,
16 Eucalyptus, and now California Pepper trees in San Diego have struggled to
17 recover. Any rain we get has little effect and response can be delayed for two
18 to three years. Here are some of the links to show the growing effects..."
19

20 ORA asked: ⁵⁹

21 "SDG&E provides 'Regulatory and Environmental Compliance' as one of its
22 cost drivers (page 55). Has SDG&E seen an increase in costs in recent years
23 due to regulatory and environmental compliance issues? If yes, please show
24 how this trend is reflected in historical expenses."
25

26 SDG&E's response:

27 "SDG&E has seen cost increase in the Regulatory and Environmental
28 Compliance. Federal, State, and local agencies have become more stringent
29 in parts of SDG&E service territory resulting in it being necessary for bio and
30 cultural monitors to be present during inspections and trimming operations.
31 The flow and efficiency of trimming activities can be impacted when locations
32 must be coordinated with monitors who are juggling requests to be at multiple
33 locations over the course of their day. This can impact the free flow of
34 resources, causing schedules to be adjusted to maintain compliance.
35

36 In addition, local cities are also making changes to their ordinances that have
37 also impacted SDG&E's ability to perform work efficiently.
38

⁵⁹ SDG&E response to ORA data request ORA-SDG&E-008-EJ1, Q.2.

1 Lastly, the tonnage of biomass generated from trees pruned and removed
2 annually has increased and will continue to increase as a result of dead,
3 dying, diseased, and drought effected trees being removed.
4

Year	Green Waste (tons)
2013	11,810
2012	10,832

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6
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8
9 SDG&E works diligently to find other alternatives to reduce its cost and
10 tonnage to local landfills. This is in support of Assembly Bill No.341, Chapter
11 476, signed by the governor to divert 50% of all solid waste from the Landfills.
12 [http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201120120A](http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201120120AB341)
13 [B341](http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201120120AB341)
14

15 As SDG&E strives to meet these goals, our research indicates higher costs
16 than current landfill rates in San Diego County. SDG&E's Landfill rates in
17 2013 were \$26.80 per ton for all biomass including Palm. The rates for
18 alternative composting through contracted vendor "San Pasqual Valley Soils"
19 are \$40.00 per ton for biomass and a separate rate of \$45.00 per ton for
20 Palm. This is a 67% cost increase in biomass disposal cost per ton. SDG&E
21 will continue to seek other alternatives to reduce it cost for Biomass disposal
22 to meet."
23

24 ORA asked: ⁶⁰

25 "SDG&E states that 'SDG&E's vegetation management workload has grown
26 significantly over the last decade' (page 58). Has SDG&E seen an increase
27 in costs in recent years due to a growing workload? If yes, please show how
28 this trend is reflected in historical expenses."
29

30 SDG&E's response:

31 "Table 1 included in the tree trimming section of the direct testimony reflects
32 the increased number of trees inspected annually. Additionally, for safety
33 reasons, increased focus has been placed on the inspections extending
34 beyond the SDG&E rights of way to assess hazard trees that could disrupt or
35 damage SDG&E overhead electrical lines. For this reason, inspection costs
36 have increased slightly. The number of trees trimmed and removed has
37 increased due to the off cycle patrols in Highest Risk Fire Areas and work
38 generated annually; this is reflected in table 2 and table 3. Lastly, in 2014
39 SDG&E has taken an aggressive approach to assessing drought stricken
40 trees and clearing secondary and service lines to its customers.
41

⁶⁰ SDG&E response to ORA data request ORA-SDG&E-008-EJ1, Q.3.

1 While these activities are putting upward pressure on costs, SDG&E has
2 been working to manage its tree trim program to be efficient and is not
3 specifically asking for additional funding for these causes. SDG&E believes it
4 can manage these issues with the treatment outlined in the GRC request
5 which includes funding levels in line with the 3 year historical average level of
6 costs.”

7 SDG&E’s responses discuss vague cost impacts with almost no quantitative
8 evidence. None of SDG&E’s responses show how upward pressures are reflected
9 in historical expenses. Despite SDG&E’s projected list of cost drivers, total costs
10 have declined significantly since 2012. Notably, 2014 recorded costs of \$22.363
11 million were the lowest historical recorded expenses during the 2009-2014 period.
12 The 2013 recorded costs of \$23.104 million were the second lowest historical
13 recorded expenses. For both individual component costs *and* total program costs,
14 there is no evidentiary support that expenses for vegetation management are
15 increasing. SDG&E also states that “there is no way to separate all the individual
16 drivers into individual components” making it impossible for ORA to evaluate the
17 impact of individual cost pressures.⁶¹

18 When ORA asked SDG&E to provide detailed explanations to account for
19 changes in historical expense years, SDG&E stated: “Labor costs between 2009 and
20 2013 have remained relatively constant, with a net decrease from \$980k to \$921k.
21 Non-labor costs have decreased significantly over the same period. This is due
22 primarily to decreased insurance costs.”⁶²

23 ORA asked SDG&E more about its downward trend in non-labor expenses.
24 Specifically, ORA asked:⁶³

25 “In response to DR-002-EJ1 Q.2, SDG&E states: ‘Non-labor costs have
26 decreased significantly over the same period. This is due primarily to
27 decreased insurance costs.’ Does SDG&E expect insurance costs to remain
28 the same in the TY?”

⁶¹ SDG&E response to ORA data request ORA-SDG&E-008-EJ1, Q.1.

⁶² SDG&E response to ORA data request ORA-SDG&E-002-EJ1, Q.2.

⁶³ SDG&E response to ORA data request ORA-SDG&E-084-EJ1, Q.17.

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SDG&E's response:

“Yes. SDG&E has worked diligently to drive down costs associated with contractor insurance reimbursements. SDG&E does not anticipate any further cost decreases and hopes to maintain current levels.”

ORA developed its TY forecast of \$23.858 million by using a 3-year average (2012-2014) of historical recorded expenses, which uses the most recent historical recorded expenses from 2014. In reality, a 3-year average may be overstating SDG&E's projected future costs because SDG&E does not expect insurance costs to return to historical non-labor expense levels. ORA does not add incremental funding for Powerworkz Vegetation Management. SDG&E spent \$0.330 million on Powerworkz Vegetation Management in 2014,⁶⁴ but there was no cost impact on total 2014 expenses as SDG&E had forecast.

ORA also recommends that the Commission deny SDG&E's request for a two way balancing account. SDG&E states that “the two-way balancing account will allow flexibility for SDG&E to respond to these issues as they materialize while protecting customers from cost variability,”⁶⁵ but a balancing account that allows SDG&E to spend money without restriction will do the exact opposite. In the 2012 GRC Decision, the Commission denied SDG&E's request for a two-way balancing account, stating: “Regarding SDG&E's request to treat tree trimming costs in a two-way balancing account, we do not grant that request. By continuing the one-way balancing account at the authorized funding amount, this will encourage SDG&E to perform the needed tree trimming activities, while containing costs.”⁶⁶ A two-way balancing does not provide an incentive for SDG&E to keep costs at a reasonable spending level and is unnecessary for a historically stable program. ORA's TY forecast of \$23.858 million is \$1.495 million greater than 2014 recorded costs of

⁶⁴ SDG&E response to ORA data request ORA-SDG&E-084-EJ1, Q.16.

⁶⁵ Ex. SDG&E-10-R, p. JTW-60.

⁶⁶ Decision 13-05-010, p. 153.

1 \$22.363 million and provides sufficient funding for SDG&E to address emerging TY
 2 expenses. Instead of a two-way balancing account, ORA proposes the continued
 3 use of a one-way balancing account, which will protect ratepayers from cost
 4 variability and encourage cost efficiency by the utility.

5 **XV. DISTRIBUTION ENGINEERING**

6 **A. Overview of SDG&E’s Request**

7 Distribution Engineering is responsible for developing and maintaining
 8 overhead and underground construction standards and standard practices used by
 9 the company and contractor construction forces through SDG&E’s Electric
 10 Distribution system. SDG&E forecasts \$1.909 million for Distribution Engineering,
 11 which is an increase of \$0.590 million or 44.73% over 2013 recorded expenses of
 12 \$1.319 million and an increase of \$0.440 million or 29.95% over 2014 recorded
 13 expenses of \$1.469 million. ORA’s corresponding TY forecast is \$1.397 million,
 14 which is \$0.512 million lower than SDG&E’s forecast.

15 Table 5-21
 16 Distribution Engineering Expenses
 17 2009-2014 Recorded and 2016 Forecast
 18 (in Thousands of 2013 Dollars)

Description	2009	2010	2011	2012	2013	2014	SDG&E 2016	ORA 2016
Labor	\$805	\$719	\$1,016	\$1,071	\$1,001	\$879	\$1,617	\$992
Non-Labor	\$150	\$367	\$344	\$369	\$318	\$590	\$292	\$405
Distribution Engr	\$955	\$1,086	\$1,360	\$1,440	\$1,319	\$1,469	\$1,909	\$1,397

19 Source: 2009-2013 data from Ex. SDG&E-10-WP-R, p. 53. 2014 adjusted-recorded expenses from
 20 Sempra email to ORA dated March 13, 2015.

21 SDG&E developed its labor forecast of \$1.617 million using a 4-year linear
 22 (2010-2013) forecast plus an incremental increase of \$0.260 million. SDG&E
 23 developed its non-labor forecast of \$0.292 million by using a 3-linear (2011-2013)
 24 forecast.

1 **B. ORA’s Analysis**

2 SDG&E’s use of a 4-year linear (2010-2013) forecast for labor expenses
3 produces an artificially high base year for labor of \$1.357 million. Using the most
4 recent historical recorded labor expenses from 2014, a 4-year linear (2011-2014)
5 forecast produces a base year for labor of only \$0.823 million. Given 2014 data,
6 there is no rationale behind SDG&E’s use of a 4-year linear forecast for labor
7 expenses.

8 SDG&E is also requesting an incremental increase of \$0.260 million over the
9 base year for 4 employees associated with Net Energy Metering (NEM). SDG&E
10 does not provide any correlation between changing NEM workload and increasing
11 costs. Expenses have remained relatively stable during historical years. Although
12 SDG&E forecast spending \$1.625 million in 2014, SDG&E only spent \$1.469
13 million.⁶⁷ Most notably, SDG&E had forecasted hiring 2 new NEM employees in
14 2014 but did not. SDG&E stated: “SDG&E did not hire 2 new NEM employees in
15 2014. The current employees are still working 10-12 hrs/day. In addition, SDG&E is
16 utilizing contracts to assist with the increased workload.”⁶⁸ SDG&E stresses the
17 significance of a growing NEM workload, but fails to prioritize the employment of
18 new NEM employees.

19 ORA developed its TY forecast of \$1.397 million by using a 4-year average
20 (2011-2014) of historical recorded expenses. A 4-year average is appropriate
21 because historical expenses have remained stable for the past four years. If
22 SDG&E hires new NEM employees, SDG&E can reallocate costs from the non-labor
23 contracted work that is currently being used to assist with the increased workload.

⁶⁷ SDG&E’s 2014 forecast from Ex. SDG&E-10-WP-R, p. 53. 2014 adjusted-recorded expenses from Sempra email to ORA dated March 13, 2015.

⁶⁸ SDG&E response to ORA data request ORA-SDG&E-008-EJ1, Q.18.

1 **XVI. TECHNOLOGY INNOVATION AND DEVELOPMENT**

2 **A. Overview of SDG&E’s Request**

3 The Technology, Innovation, and Development group is responsible for
4 furthering technological advancement of renewable energy, low cost energy storage,
5 support for PEV⁶⁹ infrastructure, integrating customer energy management systems
6 into the Smart Grid, the development of new energy efficiency technologies for
7 customer use, and expanding renewable energy options in SDG&E’s service
8 territory. SDG&E forecasts \$0.882 million for Technology, Innovation, and
9 Development, which is an increase of \$0.555 million or 169.72% over 2013 recorded
10 expenses of \$0.327 million and an increase of \$0.760 million or 622.95% over 2014
11 recorded expenses of \$0.122 million. ORA’s corresponding TY forecast is \$0.207
12 million, which is \$0.675 million lower than SDG&E’s forecast.

13 Table 5-22
14 Technology Innovation and Development Expenses
15 2009-2014 Recorded and 2016 Forecast
16 (in Thousands of 2013 Dollars)

Description	2009	2010	2011	2012	2013	2014	SDG&E 2016	ORA 2016
Labor	\$358	\$122	\$97	\$156	\$160	\$104	\$480	\$140
Non-Labor	\$56	\$16	\$16	\$16	\$166	\$18	\$402	\$67
Tech Innovation & Development	\$414	\$138	\$113	\$172	\$327	\$122	\$882	\$207

17 Source: 2009-2013 data from Ex. SDG&E-10-WP-R, p. 129. 2014 adjusted-recorded expenses from
18 Sempra email to ORA dated March 13, 2015.

19 SDG&E developed its TY forecast of \$0.882 million by using a 3-year linear
20 (2011-2013) forecast plus an incremental increase of \$0.250 million.

21 **B. ORA’s Analysis**

22 SDG&E’s use of a 3-year linear (2011-2013) forecast produces an artificially
23 high base year of \$0.632 million. Using the most recent historical recorded
24 expenses from 2014, a 3-year linear (2012-2014) forecast produces a base year of

⁶⁹ Plug-in Electric Vehicles.

1 only \$0.132 million. Given 2014 data, there is no rationale behind SDG&E's use of a
2 3-year linear forecast. SDG&E's data request responses indicate that expenses
3 fluctuate up and down as the number of rotating associates in the Associate
4 Engineer Program and the assigned areas to which they are charged changes each
5 year (assigned area affects the allocation of costs between O&M and capital).⁷⁰
6 This cost driver, combined with historical expense data, indicates there is no clear
7 upward or downward trends occurring in SDG&E's spending levels.

8 SDG&E also requests an incremental increase of \$0.250 million for staff
9 positions associated with the Integrated Test Facility (ITF). SDG&E forecast that ITF
10 costs would be incurred starting in 2014. ORA asked SDG&E to provide year-to-
11 date ITF expenses and the year-to-date number of staff positions for the ITF,
12 SDG&E responded on March 13, 2015: "There are no year to date recorded O&M
13 expenses for the ITF. There are no staff positions currently assigned to the ITF. A
14 requisition to fill the needed staff positions is currently in progress."⁷¹ SDG&E
15 incorrectly forecast its 2014 ITF expenses and it is unclear when staff positions will
16 be assigned to the ITF.

17 SDG&E overstated its 2014 forecast of \$0.668 million by \$0.546 million more
18 than the actual adjusted-recorded 2014 expenses of \$0.122 million.⁷² SDG&E's
19 expenses are not increasing at the rate SDG&E had forecast. SDG&E's TY 2016
20 forecast is also overstated. ORA developed its TY forecast of \$0.207 million by
21 using a 3-year average (2012-2014) of historical recorded expenses. ORA's
22 forecast of \$0.207 million is \$.085 million greater than 2014 recorded expenses of
23 \$0.122 million and is sufficient to address emerging TY expenses associated with
24 ITF.

⁷⁰ SDG&E response to ORA data request ORA-SDG&E-008-EJ1, Qs.19-22.

⁷¹ SDG&E response to ORA data request ORA-SDG&E-074-EJ1, Q.32.

⁷² SDG&E's 2014 forecast from Ex. SDG&E-10-WP-R, p. 129. 2014 adjusted-recorded expenses from Sempra email to ORA dated March 13, 2015.

1 **XVII. RELIABILITY AND CAPACITY ANALYSIS**

2 **A. Overview of SDG&E’s Request**

3 The Reliability and Capacity workgroups provide technical support services
4 related to the operations and maintenance of the electric distribution system.
5 SDG&E forecasts \$0.618 million for Reliability and Capacity Analysis, which is an
6 increase of \$0.080 million or 14.87% over 2013 recorded expenses of \$0.538 million
7 and an increase of \$0.266 million or 75.57% over 2014 recorded expenses of \$0.352
8 million. ORA’s corresponding TY forecast is \$0.502 million, which is \$0.116 million
9 lower than SDG&E’s forecast.

10 Table 5-23
11 Reliability and Capacity Analysis Expenses
12 2009-2014 Recorded and 2016 Forecast
13 (in Thousands of 2013 Dollars)

Description	2009	2010	2011	2012	2013	2014	SDG&E 2016	ORA 2016
Labor	\$389	\$377	\$413	\$386	\$229	\$103	\$309	\$239
Non-Labor	\$145	\$101	\$523	\$230	\$308	\$249	\$308	\$262
Reliability and Capacity Analysis	\$534	\$477	\$936	\$617	\$538	\$352	\$618	\$502

14 Source: 2009-2013 data from Ex. SDG&E-10-WP-R, p. 36. 2014 adjusted-recorded expenses from
15 Sempra email to ORA dated March 13, 2015.

16 SDG&E developed its TY forecast of \$0.618 million by using 2013 base year
17 recorded expenses plus an incremental increase of \$0.080 million for two fusing
18 specialists, 1 administrative assistant, and a principal engineer.⁷³

19 **B. ORA’s Analysis**

20 SDG&E states that its methodology “is the most indicative of the current and
21 future forecasted base-line spending of this group due to the fact that the O&M
22 component of the costs are expected to remain fairly stable over the next several

⁷³ Ex. SDG&E-10-WP-R, p. 36. SDG&E states that it uses a 3-year average as its base year, but SDG&E’s WP calculations show that SDG&E uses 2013 recorded expenses as the base year.

1 years.”⁷⁴ Despite SDG&E’s claim, costs have declined significantly since 2011.
2 SDG&E spent \$0.352 million in 2014, which is \$0.256 million less than its 2014
3 forecast of \$0.608 million.⁷⁵ ORA developed its TY forecast of \$0.502 million by
4 using a 3-year average (2012-2014) of historical recorded expenses, which uses the
5 most recent historical recorded expenses from 2014. ORA’s TY forecast is \$0.150
6 million greater than both 2014 recorded expenses of \$0.352 million and a 5-year
7 average (2010-2014) of historical recorded expenses which is \$0.584 million.

8 **XVIII. INFORMATION MANAGEMENT SUPPORT FOR ELECTRIC**
9 **DISTRIBUTION**

10 **A. Overview of SDG&E’s Request**

11 The Information Management workgroup includes the GIS Business Solutions
12 Team, which is responsible for providing business analytics associated with the
13 maintenance and advancement of GIS technology. This group will also be
14 responsible for supporting Graphical Work Design (GWD) once the system goes into
15 production in 2015. SDG&E forecasts \$0.339 million for Information Management
16 Support, which is an increase of \$0.115 million or 51.34% over 2013 recorded
17 expenses of \$0.224 million and an increase of \$0.199 million or 142.14% over 2014
18 recorded expenses of \$0.140 million. ORA’s corresponding TY forecast is \$0.140
19 million, which is \$0.199 million lower than SDG&E’s forecast.
20

⁷⁴ Ex. SDG&E-10-WP-R, p. 36. SDG&E states that it uses a 3-year average as its base year, but SDG&E’s WP calculations show that SDG&E uses 2013 recorded expenses as the base year.

⁷⁵ SDG&E’s 2014 forecast from Ex. SDG&E-10-WP-R, p. 36. 2014 adjusted-recorded expenses from Sempra email to ORA dated March 13, 2015.

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Table 5-24
Information Management Support Expenses
2009-2014 Recorded and 2016 Forecast
(in Thousands of 2013 Dollars)

Description	2009	2010	2011	2012	2013	2014	SDG&E 2016	ORA 2016
Labor	\$0	\$128	\$3	\$0	\$102	\$133	\$217	\$133
Non-Labor	\$0	\$13	\$1	\$32	\$122	\$7	\$122	\$7
Info Mgmt Support	\$0	\$141	\$4	\$32	\$224	\$140	\$339	\$140

5 Source: 2009-2013 data from Ex. SDG&E-10-WP-R, p. 136. 2014 adjusted-recorded expenses from
6 Sempra email to ORA dated March 13, 2015.

7 SDG&E developed its TY forecast by using 2013 base year recorded
8 expenses plus an incremental increase of \$0.115 million for three Graphical Work
9 Design (GWD) employees currently in IT to move to EDO.

10 **B. ORA’s Analysis**

11 ORA asked SDG&E to provide more information on its request for three GWD
12 employees.

13 ORA asked:⁷⁶

14 “SDG&E forecasts an incremental increase of \$0.115 million over 2013
15 recorded expenses for ‘Three Graphical Work Design (GWD) employees
16 currently in IT to move to EDO.’ SDG&E states: ‘These 3 people are currently
17 on capital projects therefore no Distribution O&M has been charged
18 historically’ (WP Page 126). Please reference the location in the workpapers
19 where historical costs for the three GWD employees are recorded. Please
20 show if and how SDG&E removed these costs from forecasted capital
21 expenditures in order to account for the employees’ move to EDO.”

22
23 SDG&E’s response:

24 “The historical cost for the three GWD employees are recorded in Exh No:
25 SDG&E-19-WP/Witness: S. Mikovits. SDG&E did not remove these costs
26 from forecasted capital expenditures because resources are still required for
27 the completion of the capital projects.”

⁷⁶ SDG&E response to ORA data request ORA-SDG&E-008-EJ1, Q.30.

1 Expenses for the three GWD employees are already embedded in historical
2 costs. SDG&E's requested increase of \$0.115 million is to account for the transfer
3 of employees from capital projects to O&M, but SDG&E's data request response
4 reveals that the expenses were not moved from IT to EDO. SDG&E states that it did
5 "not remove these costs from forecasted capital expenditures because resources
6 are still required for the completion of the capital projects." SDG&E needs to develop
7 a forecast for those resources. ORA opposes SDG&E's request for three GWD
8 employees. The costs for the three GWD employees should not be counted twice.
9 In addition, SDG&E forecast spending \$0.339 million in 2014 which included the
10 forecast transfer of the three GWD employees; however, SDG&E only spent \$0.140
11 million in 2014.⁷⁷ SDG&E overstated its 2014 forecast by \$0.199 million.

12 ORA developed its TY forecast of \$0.140 million by using 2014 recorded
13 expenses. ORA's TY forecast is greater than both the 3-year (2012-2014) and 5-
14 year (2010-2014) averages of historical recorded expenses which are \$0.132 million
15 and \$0.108 million, respectively.

16 **XIX. TECHNOLOGY UTILIZATION**

17 **A. Overview of SDG&E's Request**

18 The Technology Utilization group works on the incorporation of advanced
19 technologies into the electric system including large-scale renewables, plug-in
20 electric vehicles and rooftop solar plans. SDG&E forecasts \$1.948 million for
21 Technology Utilization, which is an increase of \$0.661 million or 51.36% over 2013
22 recorded expenses of \$1.287 million and an increase of \$1.038 million or 114.07%
23 over 2014 recorded expenses of \$0.910 million. ORA's corresponding TY forecast
24 is \$1.243 million, which is \$0.705 million less than SDG&E's forecast.

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⁷⁷ SDG&E's 2014 forecast from Ex. SDG&E-10-WP-R, p. 136. 2014 adjusted-recorded expenses from Sempra email to ORA dated March 13, 2015.

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Table 5-25
Technology Utilization Expenses
2009-2014 Recorded and 2016 Forecast
(in Thousands of 2013 Dollars)

Description	2009	2010	2011	2012	2013	2014	SDG&E 2016	ORA 2016
Labor	\$635	\$1,076	\$1,019	\$1,168	\$924	\$548	\$1,299	\$880
Non-Labor	\$252	\$221	\$320	\$364	\$363	\$362	\$649	\$363
Tech Utilization	\$887	\$1,297	\$1,339	\$1,531	\$1,287	\$910	\$1,948	\$1,243

5 Source: 2009-2013 data from Ex. SDG&E-10-WP-R, p. 151. 2014 adjusted-recorded expenses from
6 Sempra email to ORA dated March 13, 2015.

7 SDG&E developed its TY forecast using a 5-year linear (2009-2013) forecast
8 plus incremental costs of the \$0.163 million for Borrego Springs Microgrid and the
9 Advanced Energy Storage (AES) Project.

10 **B. ORA's Analysis**

11 SDG&E's use of a 5-year linear (2009-2013) forecast produces an artificially
12 high base year of \$1.785 million. Using the most recent historical recorded
13 expenses from 2014, a 5-year linear (2010-2014) forecast produces a base year of
14 only \$0.942 million and 3-year linear (2012-2014) forecast produces a base year of
15 only \$0.311 million. Given 2014 data, there is no rationale behind SDG&E's use of a
16 5-year linear forecast.

17 SDG&E's expenses have been declining since 2012. SDG&E had forecast
18 spending \$1.741 million in 2014, but only spent \$0.910 million.⁷⁸ SDG&E
19 overstated its 2014 forecast by \$0.831 million. In addition, SDG&E had forecast
20 spending \$0.105 million on the Borrego Springs Microgrid in 2014. When ORA
21 asked SDG&E to identify 2014 recorded expenses for the Borrego Springs
22 Microgrid, SDG&E stated: "2014 Recorded O&M expenses: \$7k. Please note that
23 SDG&E has embarked on a 2nd phase of the Borrego Springs Microgrid project.

⁷⁸ SDG&E's 2014 forecast from Ex. SDG&E-10-WP-R, p. 151. 2014 adjusted-recorded expenses from Sempra email to ORA dated March 13, 2015.

1 Therefore there are additional costs for 2014 that are recorded as capital.”⁷⁹
2 SDG&E had forecast spending \$0.058 million on the AES project in 2014. When
3 ORA asked SDG&E to identify 2014 recorded expenses for the AES project, SDG&E
4 stated: “Two energy storage units were installed in 2013. So far, there has been no
5 maintenance cost associated with these units. Additional storage units are expected
6 to be deployed and operational in 2015.”⁸⁰ SDG&E overstated its 2014 forecast and
7 O&M project expenses. SDG&E’s TY 2016 forecast is also overstated.

8 ORA developed its TY forecast of \$1.243 million by using a 3-year average
9 (2012-2014) of historical recorded expenses. Despite the downward trend in costs,
10 ORA’s forecast of \$1.243 million is \$0.333 million greater than 2014 recorded
11 expenses of \$0.910 million. ORA’s forecast is sufficient to address emerging TY
12 expenses, including the Borrego Springs Microgrid and the Advanced Energy
13 Storage (AES) Project.

14 **XX. ELECTRIC RELIABILITY PERFORMANCE MEASURES**

15 SDG&E proposes the same Electric Reliability Performance Measures in this
16 GRC that the Commission approved in D.14-09-005, in granting a petition for
17 modification (PFM) of D.13-05-010, Ordering Paragraph (OP) 9, which was jointly
18 filed by SDG&E and the California Coalition of Utility Employees (CCUE).⁸¹
19 SDG&E’s performance, and the resulting reward/penalty, is evaluated using metrics
20 from four adopted electric performance based ratemaking (PBR) reliability indices.
21 The four indices are SAIDI, SAIFI, Worst Circuit SAIDI, and Worst Circuit SAIFI.
22 SAIDI is an acronym for System Average Interruption Duration Index and represents
23 the average number of minutes without power that all customers experience in a

⁷⁹ SDG&E response to ORA data request ORA-SDG&E-084-EJ1, Q.21.

⁸⁰ SDG&E response to ORA data request ORA-SDG&E-084-EJ1, Q.22.

⁸¹ Ex. SDG&E-10-R, pp. 81-82.

1 year.⁸² SAIFI is an acronym for System Average Interruption Frequency Index and
2 represents the average number of outages that all customers experience in a
3 year.⁸³ Worst Circuit SAIDI is an index which focuses on circuits that have
4 experienced the highest amount of outage duration.⁸⁴ Worst Circuit SAIFI is an
5 index which focuses on circuits that have experienced the highest amount of outage
6 frequency.⁸⁵ ORA reviewed SDG&E's proposals for the proposed Electric Reliability
7 Performance Measures, and does not oppose them.

⁸² Ex. SDG&E-10-R, pp. 81-82.

⁸³ Ex. SDG&E-10-R, p. 82.

⁸⁴ Ex. SDG&E-10-R, p. 82.

⁸⁵ Ex. SDG&E-10-R, p. 82.