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Witness	:	<u>G. Wilson</u>



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

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

**SDG&E – Electric Distribution Capital Expenditures
Part 1 of 2**

San Francisco, California
April 24, 2015

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- 1 • ORA's forecast for the Capacity / Expansion capital category is higher
2 than SDG&E's request by \$0.042 million in 2015 and \$12.811 million in
3 2016.
- 4 • ORA's forecast for the Franchise capital category is lower than SDG&E's
5 request by \$11.846 million in 2015 and \$11.846 million in 2016.
- 6 • ORA's forecast for the New Business capital category is lower than
7 SDG&E's request by \$20.582 million in 2015 and \$21.482 million in 2016.
- 8 • ORA's forecast for the Reliability / Improvements capital category is lower
9 than SDG&E's request by \$17.041 million in 2015 and higher by \$29.672
10 million in 2016.
- 11 • ORA's forecast for the Safety and Risk Management capital category is
12 lower than SDG&E's request by \$13.278 million in 2015 and \$15.939
13 million in 2016.

14 Table 6-1 (below) provides a more comprehensive look at the above
15 recommendations. The table shows adjusted-recorded capital expenditures for the
16 years 2009 through 2013, and compares ORA's and SDG&E's 2014 through 2016
17 forecasts. As shown in Column G (shaded), ORA was able to obtain 2014 adjusted-
18 recorded expenditures, eliminating the need to derive forecasts for that year.

19 ORA's recommended forecasts for 2015 and 2016 represent adjustments that
20 are based on timing issues and degree of need, not outright elimination. Stated
21 another way, where ORA disagrees with SDG&E's forecasts, those disagreements
22 are largely based on the timing of when capital projects will be completed, as well as
23 on the levels of the requested expenditures; ORA has not concluded that these
24 projects should be rejected. ORA understands why SDG&E has requested the
25 forecast increases it seeks in this General Rate Case (GRC), and in many cases,
26 ORA agrees with those forecasts.

27 As noted in the heading of Table 6-1, all of the recorded and forecast
28 numbers shown in the table are presented in constant 2013 dollars. This type of
29 presentation allows for the direct comparison of historical and future expenditures
30 without the impact of escalation. Both ORA and SDG&E will be escalating these
31 forecast amounts based on inflation forecasts that each will derive. ORA's capital
32 escalation amounts are discussed in Exhibit ORA-3.

TABLE 6-1
ELECTRIC DISTRIBUTION CAPITAL EXPENDITURES FOR SDG&E
 FUNCTIONAL AREAS -- PART 1 of 2

Line #	Functional Capital Areas	Recorded -- 000s of Constant 2013 \$					Forecast -- 000s of Constant 2013 \$								
		2009	2010	2011	2012	2013	2014			2015			2016		
							SDG&E	ORA - Recorded	SDG&E > ORA	SDG&E	ORA	SDG&E > ORA	SDG&E	ORA	SDG&E > ORA
A.	B.	C.	D.	E.	F.	G.	H.	I.	J.	K.	L.	M.	N.		
2	Capacity / Expansion	\$15,026	\$18,400	\$25,022	\$25,293	\$17,796	\$50,655	\$24,912	\$25,743	\$31,282	\$31,324	(\$42)	\$14,241	\$27,052	(\$12,811)
3	Franchise	\$45,043	\$45,073	\$43,624	\$42,838	\$32,196	\$41,764	\$29,918	\$11,846	\$41,764	\$29,918	\$11,846	\$41,764	\$29,918	\$11,846
4	New Business	\$48,431	\$42,139	\$44,797	\$36,228	\$32,006	\$58,592	\$33,638	\$24,954	\$70,653	\$50,071	\$20,582	\$81,962	\$60,480	\$21,482
5	Reliability / Improvements	\$66,852	\$57,551	\$65,996	\$84,044	\$61,914	\$81,848	\$28,678	\$53,170	\$102,934	\$85,893	\$17,041	\$74,427	\$104,099	(\$29,672)
6	Safety & Risk Management	\$1,004	\$1,453	\$3,256	\$8,464	\$11,041	\$26,209	\$18,083	\$8,126	\$40,684	\$27,406	\$13,278	\$75,423	\$59,484	\$15,939
7	TOTAL	\$176,356	\$164,616	\$182,695	\$196,867	\$154,953	\$259,068	\$135,229	\$123,839	\$287,317	\$224,612	\$62,705	\$287,817	\$281,033	\$6,784

 = 2014 adjusted-recorded capital from March 6, 2015 and March 27, 2015 emails to ORA.

1 **III. GENERAL DISCUSSION**

2 **A. Background**

3 Capital expenditures, once they become plant additions, are cumulative in
4 nature. Expenditures made during one year are added to expenditures that were
5 made in previous years. Therefore, ORA must analyze all of the proposed capital
6 expenditures occurring from the end of the last recorded year (SDG&E included
7 2013 recorded data in its exhibits and workpapers) through the end of the Test Year
8 (2016).

9 In order to eliminate estimating uncertainty, ORA endeavors to obtain
10 additional years of recorded plant data whenever possible. In this GRC, ORA was
11 able to obtain adjusted-recorded expenditures for 2014. As will be discussed in
12 detail later, ORA is recommending that SDG&E's adjusted-recorded 2014 capital
13 expenditures be adopted for all capital areas discussed in this exhibit.

14 In its exhibits and workpapers, SDG&E has presented its capital expenditures
15 in direct constant dollars. "Direct" dollars refers to the fact that SDG&E's capital
16 expenditure estimates do not include various loadings, such as the capitalized
17 portions of Pensions and Benefits, Payroll Taxes, Injuries and Damages,
18 Administrative and General Expenses, etc. These various loadings are estimated
19 separately and are allocated to the various capital projects by the Results of
20 Operations (RO) computer model. "Constant" dollars refers to the fact that SDG&E's
21 forecasts are presented with estimates that exclude escalation. In this instance, all
22 of SDG&E's capital forecasts are based on 2013 dollars. For example, a 2015
23 capital expenditure will not use 2015 dollars for its forecast, but will present the
24 estimate in 2013 dollars, with escalation automatically added later by the RO
25 computer model. Because the exhibits, workpapers, and the RO computer model
26 are all set up to use direct constant 2013 dollars, ORA is presenting its analyses and
27 estimates in the same manner.

28 **B. Capital Expenditures Versus Capital Additions**

29 This exhibit only discusses capital expenditures and does not specifically
30 address SDG&E's capital additions. The distinction between the two is important.

1 Capital expenditures, as the term implies, reflect the capital dollars that SDG&E
2 spends in a given year. No consideration is given as to whether or not those
3 expenditures result in projects that are actually completed (and considered to be
4 “used and useful”) during the year. In contrast, capital additions reflect the dollar
5 amount of projects that are completed during a given year, regardless of when the
6 expenditures actually took place. SDG&E has elected to present its testimony and
7 workpapers using the “expenditure” format. SDG&E’s RO computer model takes
8 these expenditures and converts them to capital additions using project completion
9 dates that are loaded into the model. To be consistent, ORA also presented its
10 discussions and recommendations using capital expenditures. Capital expenditures
11 that occur after TY 2016 are not discussed in this exhibit. ORA’s post-test year
12 ratemaking proposals for 2017 and 2018 are set forth in Exhibit ORA-23.

13 This exhibit (as well as SDG&E’s exhibits) does not specifically address
14 capital additions. SDG&E’s capital exhibits and supporting workpapers (as well as
15 its RO computer model) are organized around capital expenditures. SDG&E’s
16 capital witnesses provide testimony regarding the magnitude of the direct capital
17 dollars that are estimated to be spent each year, not how much is actually being
18 booked to plant. SDG&E relies on its RO computer model to manipulate these direct
19 capital expenditures and calculate the corresponding capital additions. ORA has
20 studied SDG&E’s RO model, and believes that it properly calculates plant additions.
21 Therefore, ORA’s analyses and recommended direct capital adjustments are also
22 stated in terms of capital expenditures.

23 When analyzing data in this format, the revenue requirement impact of
24 recommended adjustments to capital expenditures may not show up in the year in
25 which the adjustments are made. For example, suppose a capital project is planned
26 to begin construction in 2015, but is not scheduled to be completed until 2016. If
27 ORA was to recommend an adjustment to the 2015 expenditures, there would not
28 be a revenue requirement impact until 2016, when the project was completed, was
29 booked to plant-in-service, and began earning a return.

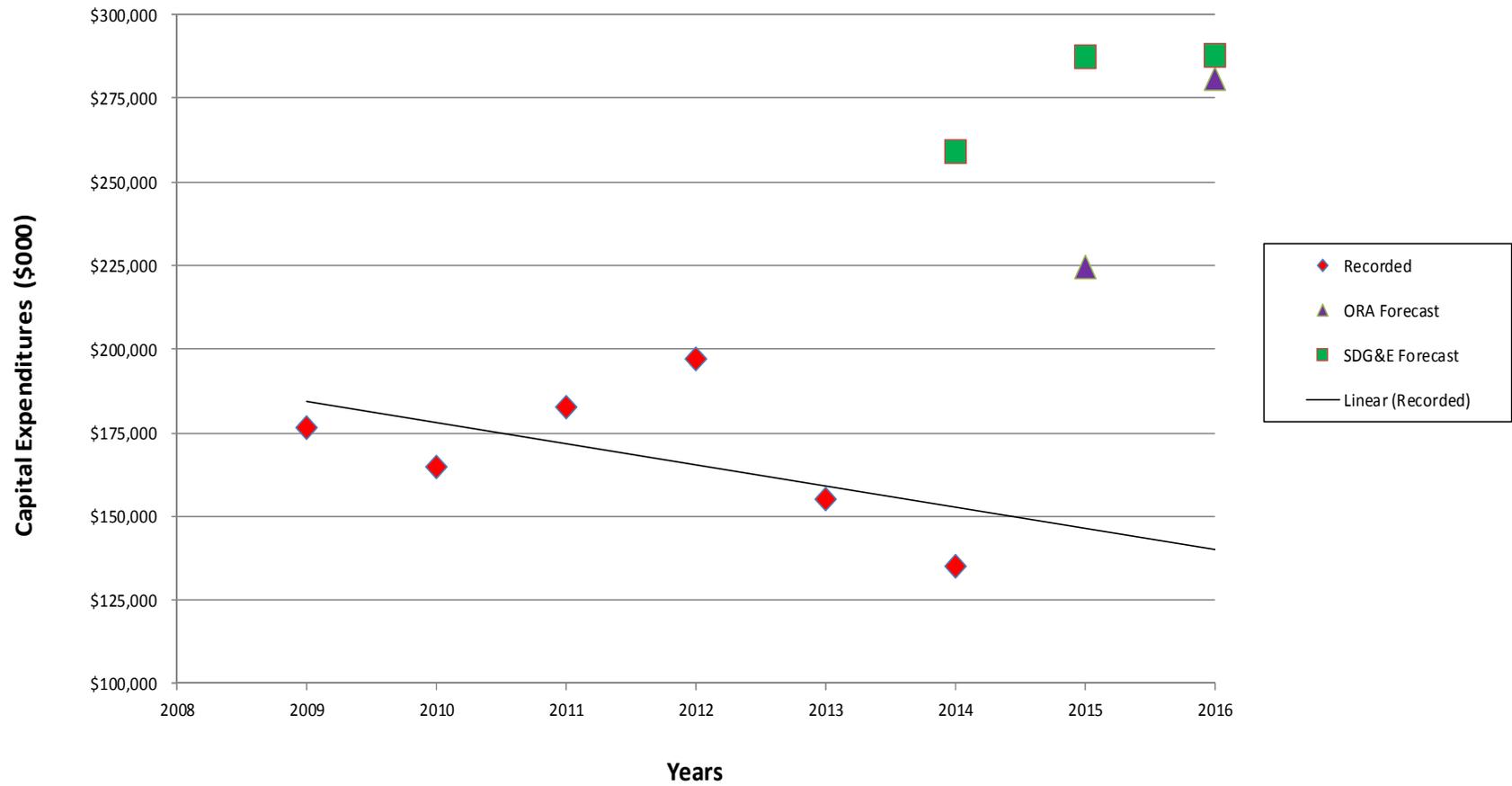
1 **C. Overview of Capital Expenditures**

2 Earlier in this exhibit, Table 6-1 presented a detailed look at the capital
3 expenditures being forecast by SDG&E and ORA for the years 2014, 2015, and
4 2016. However, given the level of detail contained in that table, it may be difficult to
5 visualize how the proposed expenditures compare to recorded data. The following
6 graph (see Graph 6-1 below) compares the overall forecasts for 2014, 2015, and
7 2016 with the pattern of past recorded expenditures.

8 Several aspects of Graph 6-1 need to be discussed. First, the trend line
9 shown on the graph was derived by utilizing recorded data for 2009 through 2014
10 (the red diamond shapes). Because ORA had access to adjusted-recorded
11 information, there was no need for ORA to estimate a 2014 forecast. The graph
12 shows that SDG&E’s forecast for 2014 (the green square) was considerably higher
13 than the actual adjusted-recorded expenditures. As the line shows, the trend of
14 recorded capital expenditures indicates an expectation that future expenditures (in
15 2015 and 2016) would be gradually decreasing (not increasing) and would be
16 slightly less than \$150 million by 2016.

17 The second aspect of the graph that should be noted is that SDG&E’s
18 proposed expenditures for 2015 and 2016 (the green squares) are much higher than
19 what has occurred in the past, and greatly exceeds what would be expected by
20 looking at the trend line. Part of this large increase is due to the fact that SDG&E is
21 proposing increased expenditures for safety and reliability programs. Because of
22 this increased emphasis on safety and reliability, ORA expected that forecast capital
23 expenditures would not follow the downward trend. However, even after taking this
24 into consideration, the graph shows that SDG&E’s 2015 and 2016 capital
25 expenditure forecasts are much higher than the actual spending that has occurred in
26 the past.

Graph 6-1
HISTORICAL AND FORECAST SDG&E ELECTRIC CAPITAL EXPENDITURES
CPUC Jurisdiction -- 000s of Constant 2013 \$



1 The third aspect of Graph 6-1 that should be noted is that ORA is also
2 recommending increases that are larger than what has occurred previously. ORA
3 acknowledges that some capital expenditure increases are warranted. As shown on
4 the graph (the purple triangles), ORA's recommended capital expenditures in 2015
5 and 2016 are not only higher than would be expected by the trend line, but also
6 much higher than past recorded years. Even though ORA's forecasts have taken
7 into consideration increased expenditures for safety and reliability (as will be
8 discussed in subsequent sections of this exhibit), ORA's proposed 2015 and 2016
9 forecasts are lower than SDG&E's.

10 Lastly, it should be noted that ORA did not use trends of this type to derive its
11 forecasts. Graph 6-1 simply provides a visual "reasonableness check" to show how
12 the proposed expenditures compare with what would be expected given recent
13 historical experience.

14 **IV. ADJUSTMENT TO REFLECT 2014 RECORDED DATA**

15 As discussed earlier, ORA was able to obtain adjusted-recorded 2014 capital
16 expenditures from SDG&E.¹ As seen on Table 6-1, Line 7, Column H, actual
17 adjusted-recorded 2014 capital expenditures for the five capital categories that are
18 the subject of this exhibit are \$123.839 million less than what SDG&E had forecast.
19 Since capital expenditures are cumulative in nature (i.e., one year's capital additions
20 are added to the next), in order to develop a test year rate base, capital expenditures
21 must be developed for all estimated years. In this GRC, SDG&E's last recorded
22 year was 2013, meaning it had to develop forecasts for 2014, 2015, and 2016.
23 Since ORA was able to obtain 2014 adjusted-recorded data, it only had to develop
24 forecasts for 2015 and 2016.

25 In its RO computer model, SDG&E includes nearly 500 lines of in-depth
26 capital project details. These lines cover all of the capital projects that SDG&E is

¹ SDG&E provided ORA with 2014 adjusted-recorded capital in emails dated March 6, 2015 and March 27, 2015.

1 proposing for this GRC. In the RO model, SDG&E has reflected 2014 estimated
2 data for its capital programs, not 2014 recorded data. ORA has gone through the
3 RO computer model and identified those lines that correspond to the projects being
4 analyzed in this exhibit. ORA has replaced the original estimated forecasts in the
5 model with the adjusted-recorded data obtained from SDG&E. While some of the
6 adjusted-recorded costs of individual capital projects are actually higher than what
7 SDG&E had originally forecast, most are lower. The net impact on the RO computer
8 model of replacing the estimated data with the adjusted-recorded information is a
9 lowering of the 2014 capital expenditures by a total of \$123.839 million.

10 On March 27, 2015, SDG&E sent to ORA the second of its two emails that
11 contained adjusted-recorded 2014 capital expenditure data. This second email
12 contained minor updates from the initial email. ORA has incorporated these
13 revisions into this exhibit. However, this new email also included a table that
14 indicated SDG&E had worked on (and spent money on) a number of capital projects
15 that were not included in SDG&E's testimony or workpapers. These new projects,
16 45 in total, were never discussed, explained, or justified; no calculations were
17 provided showing how the costs for these projects were derived. Forecasts for
18 expenditures beyond 2014 were not provided. The 2014 expenditure total for these
19 45 new capital projects amounts to \$10.323 million (in 2013 dollars). While the total
20 amount expended is not terribly large, and the revenue requirement impact would be
21 even smaller, ORA has concluded that reflecting these project costs in this GRC
22 would set a bad precedent.

23 When utilities file for a GRC, they always carry the burden of justifying their
24 capital forecasts. It is not a trivial endeavor to put together the testimony necessary
25 to meet that burden. Utilities must explain why a particular project is necessary,
26 show how the costs were derived, and discuss what other options were considered.
27 In short, utilities must provide sufficient information to enable ORA, and other
28 intervenors, to judge whether or not a capital project is justified. SDG&E has not
29 provided any of the information necessary to determine the reasonableness of these
30 new projects. SDG&E's RO computer model does not even include these 45
31 projects. If ORA was to recognize these new projects in this GRC, it could send a

1 signal that utilities need not justify their capital requests. Therefore, ORA has
2 excluded these 45 unsubstantiated projects from its 2014 capital expenditure
3 forecast in this GRC.

4 **V. DISCUSSION AND ANALYSIS OF CAPACITY / EXPANSION**
5 **PROJECTS**

6 SDG&E must construct its electrical distribution system so as to meet its peak
7 load. SDG&E's daily load profile on an average circuit can swing 30% to 40% when
8 comparing peak to average loads.² The capacity / expansion category of capital
9 projects includes projects that are required for capacity and substation upgrades and
10 additions necessary to accommodate system growth. Typical projects consist of
11 load transfers, re-conductor jobs, circuit extensions, new circuits, expanding existing
12 substations, and the construction of new substations.³

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

14 Line 2 of Table 6-1 shows the total recorded and forecast expenditures for
15 this project category. However, that table does not show the individual capital
16 projects that constitute the Capacity / Expansion category. Table 6-2 (shown
17 below), provides a much more detailed look at this category.

18 Several things are immediately apparent on this table. First, as indicated by
19 the highlighted numbers in Column G, ORA was able to obtain adjusted-recorded
20 2014 data at the individual project level. Of the 27 projects that make up this
21 category, SDG&E spent more than it had forecast in only three instances. Also
22 noticeable are the numerous projects that are shaded green. As will be discussed in
23 the following portions of ORA's testimony, those projects have been flagged by
24 SDG&E as having revisions to their completion dates.

² Ex. SDG&E-09-R, p. JDJ-13, lines 5 and 6.

³ Ex. SDG&E-09-R, p. JDJ-13, lines 16 through 21.

TABLE 6-2
ELECTRIC DISTRIBUTION CAPITAL EXPENDITURES FOR SDG&E
Recorded and Forecast Expenditures For Capacity / Expansion Capital Projects

Line #	Budget Code	Capacity / Expansion Capital Projects	Recorded -- 000s of Constant 2013 \$					Forecast -- 000s of Constant 2013 \$								
			2009	2010	2011	2012	2013	2014			2015			2016		
								SDG&E	ORA - Recorded	SDG&E > ORA	SDG&E	ORA	SDG&E > ORA	SDG&E	ORA	SDG&E > ORA
A.	B.	C.	D.	E.	F.	G.	H.	I.	J.	K.	L.	M.	N.			
1	209	Field Shunt Capacitors	\$535	\$451	\$786	\$701	\$502	\$594	\$441	\$153	\$594	\$594	\$0	\$594	\$594	\$0
2	228	Reactive Small Capital Projects	\$915	\$2,001	\$1,387	\$1,415	\$1,527	\$1,448	\$2,671	(\$1,223)	\$1,448	\$1,448	\$0	\$1,448	\$1,448	\$0
3	2252	Mira Sorrento 138/12kV Substation	\$129	\$257	\$247	\$751	\$945	\$12,218	\$6,747	\$5,471	\$0	\$0	\$0	\$0	\$0	\$0
4	2258	Salt Creek Substation & New Circuits	\$0	\$0	\$6,619	\$586	\$484	\$1,008	\$1,229	(\$221)	\$5,065	\$1,229	\$3,836	\$1,816	\$5,065	(\$3,249)
5	7245	Telegraph Canyon - 138/12kV Bank & C1226	\$0	\$0	\$799	\$159	\$3	\$3,080	(\$1)	\$3,081	\$0	\$3,080	(\$3,080)	\$0	\$0	\$0
6	7249	San Ysidro - New 12kV Circuit 1202	\$141	\$200	\$103	\$415	\$2	\$748	(\$3)	\$751	\$0	\$748	(\$748)	\$0	\$0	\$0
7	7253	C1161 BD - New 12kV Circuit	\$23	\$13	\$93	\$175	\$2	\$1,315	\$0	\$1,315	\$0	\$1,315	(\$1,315)	\$0	\$0	\$0
8	8253	Substation 12kV Capacitor Upgrades	\$775	\$1,932	\$3,694	\$3,587	\$1,404	\$3,278	(\$2,169)	\$5,447	\$3,278	\$3,278	\$0	\$3,278	\$3,278	\$0
9	8259	C917, CC: New 12kV Circuit	\$0	\$0	\$0	\$0	\$0	\$1,450	\$0	\$1,450	\$0	\$0	\$0	\$0	\$1,450	(\$1,450)
10	9271	C1259, MAR: New 12kV Circuit	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$961	\$0	\$961	\$0	\$961	\$0	(\$961)
11	9274	C1282 LC - New Circuit	\$0	\$0	\$1	\$2	\$4	\$4,031	\$23	\$4,008	\$0	\$0	\$0	\$0	\$4,008	(\$4,008)
12	9276	Poseidon - Canyon Substation Modification	\$0	\$3	\$0	\$0	\$956	\$9,402	\$10,461	(\$1,059)	\$808	\$0	\$808	\$0	\$0	\$0
13	10266	C350, LI: Reconductor & Voltage Regulation	\$0	\$0	\$0	\$0	\$0	\$933	\$529	\$404	\$0	\$0	\$0	\$0	\$0	\$0
14	10270	C1049, CSW: New 12kV Circuit	\$0	\$0	\$0	\$0	\$0	\$2,506	\$2,359	\$147	\$0	\$0	\$0	\$0	\$0	\$0
15	10272	Middletown 4kV Substation RFS	\$0	\$0	\$0	\$0	\$0	\$734	\$230	\$504	\$0	\$504	(\$504)	\$0	\$0	\$0
16	11244	C928, POM: New 12kV Circuit	\$0	\$0	\$0	\$0	\$0	\$734	\$0	\$734	\$0	\$0	\$0	\$0	\$734	(\$734)
17	11257	Camp Pendleton 12kV Service	\$0	\$0	\$0	\$2,850	\$3,179	\$612	\$170	\$442	\$0	\$0	\$0	\$0	\$0	\$0
18	11259	C100, OT: 12kV Circuit Extension	\$0	\$0	\$0	\$0	\$0	\$1,858	\$0	\$1,858	\$0	\$0	\$0	\$0	\$1,858	(\$1,858)
19	13250	C108, B: 12kV Circuit Reconfiguration	\$0	\$0	\$0	\$0	\$0	\$619	\$378	\$241	\$0	\$0	\$0	\$0	\$0	\$0
20	13251	PO: Reconductor	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$657	\$657	\$0	\$0	\$0	\$0
21	13259	C1243, RMV: Reconductor	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,341	\$1,341	\$0	\$0	\$0	\$0
22	13260	C1288, MSH: New 12kV Circuit	\$0	\$0	\$0	\$0	\$0	\$980	\$928	\$52	\$0	\$0	\$0	\$0	\$0	\$0
23	13263	C982: OL - Voltage Regulation	\$0	\$0	\$0	\$0	\$0	\$551	\$0	\$551	\$0	\$0	\$0	\$0	\$551	(\$551)
24	13285	C1090, JM: New 12kV Circuit	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$14,574	\$14,574	\$0	\$0	\$0	\$0
25	13286	C1120, BQ: New 12kV Circuit	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,965	\$2,965	\$0
26	13288	GH New 12kV Circuit	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,584	\$1,584	\$0
27	97248	Distribution System Capacity Improvement	\$3,318	\$1,494	\$3,780	\$2,477	\$1,709	\$2,556	\$919	\$1,637	\$2,556	\$2,556	\$0	\$2,556	\$2,556	\$0
28		Recorded Projects Completed Prior to 2014	\$9,190	\$12,049	\$7,513	\$12,175	\$7,079	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
29		TOTAL	\$15,026	\$18,400	\$25,022	\$25,293	\$17,796	\$50,655	\$24,912	\$25,743	\$31,282	\$31,324	(\$42)	\$14,241	\$27,052	(\$12,811)

= 2014 adjusted-recorded capital from March 6, 2015 and March 27, 2015 emails to ORA.
= completion dates changed by SDG&E in response to DR ORA-026-GAW.

1 **B. Changes to Completion Dates**

2 In a data request, ORA asked SDG&E to provide ORA with any changes to
3 the proposed operational dates of the 27 projects that constitute this capital
4 category.⁴ In its response, SDG&E provided a table that showed the most recent
5 estimates for the completion dates of each of the 27 projects. (A copy of this table is
6 included in Appendix A of this testimony.) After comparing the original dates with
7 the new ones, ORA determined that 20 projects had revised dates (which are
8 shaded in green in Table 6-2).

9 Most of these changed dates resulted in the projects being completed later
10 (sometimes several years later) than had originally been estimated; one project was
11 revised to show an earlier completion date. With one exception (discussed below),
12 ORA has accepted and used the new completion dates provided by SDG&E. ORA
13 updated the completion dates in the RO model to match the new information. The
14 following discussions briefly outline the changes that were made by ORA to each of
15 the 20 projects for which the completion dates have been changed.

16 **1. Salt Creek Substation**

17 This project originally had a 3/31/16 completion date. SDG&E subsequently
18 revised this to the third quarter of 2016. As mentioned previously, there was one
19 project for which ORA did not use the revised date provided by SDG&E; this is that
20 project. ORA's reason for deviating from the revised date has to do with the fact that
21 this project requires a Permit To Construct (PTC) before the project can begin. The
22 Commission's California Environmental Quality Act (CEQA) team has informed ORA
23 that the draft Environmental Impact Report (EIR) will not be published until late
24 summer of this year, followed by 24 months of construction that would be completed
25 in 2017. Therefore, for this single project, ORA is using a different completion date,
26 namely July of 2017. As shown on Line 4 on Table 6-2, ORA has assumed that
27 expenditures in 2015 will be the same as 2014, since the PTC will not be issued,

⁴ ORA-SDG&E-026-GAW, Q. 7.

1 and construction will not begin, until late in 2015. For 2016, ORA is assuming that
2 SDG&E will spend what it had budgeted for 2015. All remaining costs will be
3 completed in 2017.

4 **2. Telegraph Canyon 138/12kV Bank**

5 This project originally had a 6/30/14 completion date, which was updated to
6 the fourth quarter of 2015. As shown on Line 5 of Table 6-2, nothing was spent on
7 this project in 2014. Therefore, ORA has assumed that the costs for this project
8 should be moved into 2015.

9 **3. San Ysidro 12kV Circuit**

10 The San Ysidro 12kV Circuit project originally had a 5/31/14 completion date,
11 which was updated to the third quarter of 2015. As shown on Line 6 of Table 6-2,
12 nothing was spent on this project in 2014. Therefore, ORA has assumed that the
13 costs for this project should be moved into 2015.

14 **4. C1161 12kV Circuit**

15 This project originally had a 5/31/14 completion date, which was updated to
16 the third quarter of 2015. As shown on Line 7 of Table 6-2, nothing was spent on
17 this project in 2014. Therefore, ORA has assumed that the costs for this project
18 should be moved into 2015.

19 **5. C917 12kV Circuit**

20 The original 6/30/14 completion date has been revised to the third quarter of
21 2016. As shown on Line 9 of Table 6-2, nothing was spent on this project in 2014.
22 Since the completion date has been moved to 2016, ORA is assuming that nothing
23 will be spent in 2015 either. Therefore, ORA has pushed all of the costs for this
24 project out to 2016.

25 **6. C1259 12kV Circuit**

26 The original completion date of 5/31/15 has been revised to the third quarter
27 of 2016. As shown on Line 10 of Table 6-2, SDG&E was proposing to spend the

1 entire cost for this project in 2015. ORA has moved this expenditure into 2016 to
2 conform to the new date.

3 **7. C1282 New Circuit**

4 The original completion date of 8/31/14 has been moved to the third quarter
5 of 2016. As shown on Line 11 of Table 6-2, very little money was spent on this
6 project in 2014. Due to the new 2016 completion date, ORA has moved the
7 remaining costs for this project into 2016.

8 **8. Poseidon – Canyon Substation Modification**

9 This is the only project that has a new completion date that is earlier than the
10 original. The initial completion date was 1/31/15, which was revised to the fourth
11 quarter of 2014. Since the completion date is in 2014, ORA has assumed that the
12 project was completed by the end of that year. Therefore, as shown on Line 12 of
13 Table 6-2, any proposed expenditures after 2014 were eliminated by ORA.

14 **9. C350 Reconductor & Voltage Regulation**

15 The original completion date for this project was 5/31/14. The revised date is
16 now the fourth quarter of 2014. ORA assumes that this project was completed by
17 the end of 2014. As shown on Line 13 of Table 6-2, there are no expenditures in
18 either 2015 or 2016.

19 **10. C1049 12kV Circuit**

20 The original completion date of 8/31/14 was extended to the fourth quarter of
21 2014. ORA assumes that this project was completed by the end of 2014. As shown
22 on Line 14 of Table 6-2, there are no expenditures in either 2015 or 2016.

23 **11. Middleton 4kV Substation**

24 The original 5/31/14 completion date has been revised to the second quarter
25 of 2015. Therefore, ORA assumes that the remaining expenditures for this project
26 should be moved into 2015, as shown on Line 15 of Table 6-2.

1 **12. C928 12kV Circuit**

2 The original 6/30/14 completion date has been modified to the third quarter of
3 2016. As shown on Line 16 of Table 6-2, SDG&E made no expenditures on the
4 project in 2014. Since the new completion date now occurs in 2016, ORA has
5 shifted the expenditures into that year.

6 **13. C100 12kV Circuit Extension**

7 The original completion date for this project was 11/30/14. It has
8 subsequently been modified to the third quarter of 2016. As shown on Line 18 of
9 Table 6-2, SDG&E made no expenditures for this project in 2014. Since the new
10 completion date now occurs in 2016, ORA has shifted all of the expenditures into
11 that year.

12 **14. C108 12kV Circuit Reconfiguration**

13 SDG&E has revised the original 5/31/14 completion date to the third quarter
14 of 2014. ORA assumes that this project was completed by the end of 2014. As
15 shown on Line 19 of Table 6-2, there are no expenditures in either 2015 or 2016.

16 **15. Reconductor**

17 The original 6/30/15 completion date has been extended to the third quarter
18 of 2015. SDG&E originally forecast that all expenditures for this project would occur
19 in 2015. As shown on Line 20 of Table 6-2, ORA has concluded that no changes to
20 that expenditure pattern are needed.

21 **16. C1243 Reconductor**

22 The original 5/31/15 completion date has been extended to the third quarter
23 of 2015. SDG&E originally forecast that all expenditures for this project would occur
24 in 2015. As shown on Line 21 of Table 6-2, ORA has concluded that no changes to
25 that expenditure pattern are needed.

26 **17. C1288 12kV Circuit**

27 SDG&E has revised the original 5/31/14 completion date to the fourth quarter
28 of 2014. ORA assumes that this project was completed by the end of 2014. As
29 shown on Line 22 of Table 6-2, there are no expenditures in either 2015 or 2016.

1 **18. C982 Voltage Regulation**

2 The original 12/31/14 completion date has been revised to the third quarter of
3 2016. As shown on Line 23 of Table 6-2, nothing was spent on this project in 2014.
4 Since the completion date has been moved all the way to 2016, ORA is assuming
5 that nothing will be spent in 2015 either. Therefore, ORA has pushed all of the costs
6 for this project out to 2016.

7 **19. C1090 12kV Circuit**

8 The original 8/31/15 completion date has been extended to the fourth quarter
9 of 2015. SDG&E originally forecast that all expenditures for this project would occur
10 in 2015. As shown on Line 24 of Table 6-2, ORA has concluded that no changes to
11 that expenditure pattern are needed.

12 **20. New 12kV Circuit**

13 The original 5/31/16 completion date has been extended to the third quarter
14 of 2016. SDG&E originally forecast that all expenditures for this project would occur
15 in 2016. As shown on Line 26 of Table 6-2, ORA has concluded that no changes to
16 that expenditure pattern are needed.

17 **C. Conclusions**

18 ORA is not recommending that any of SDG&E's proposed capital projects be
19 eliminated. Instead, ORA has simply incorporated adjusted-recorded 2014 data into
20 its spreadsheet (and into the RO computer model) and revised the proposed
21 expenditure patterns to conform to the new completion dates that were provided by
22 SDG&E. (The one exception to this completion date revision was for the Salt Creek
23 project, which requires a PTC, and which ORA has concluded will delay the project
24 until 2017.) As shown in Line 29 of Table 6-2, ORA is recommending Capacity /
25 Expansion capital expenditures of \$24.912 million in 2014, \$31.324 million in 2015,
26 and \$27.052 million in 2016. ORA's expenditures are \$25.743 million less than
27 SDG&E's in 2014, \$0.042 million higher in 2015, and \$12.811 million higher in 2016.
28 ORA's forecasts are straightforward and logical and should be adopted.

1 **VI. DISCUSSION AND ANALYSIS OF FRANCHISE PROJECTS**

2 There are only three capital projects included in the Franchise category.
3 Electric Distribution Street/Highway Relocation projects cover the relocations of
4 electric distribution facilities that are in conflict with public street and highway
5 improvements.⁵ Rule 20A projects are used to convert overhead facilities to
6 underground based on the requirements of Rule 20A, a CPUC-mandated program.⁶
7 The City of San Diego Surcharge Program covers the conversion of overhead
8 facilities to underground based on requirements and a negotiated agreement with
9 the City of San Diego.⁷

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

11 Line 3 of Table 6-1 shows the total recorded and forecast expenditures for
12 this project category. However, that table does not show the individual capital
13 projects that constitute the Franchise category. Table 6-3 (shown below), provides a
14 much more detailed look at this category.

15 As shown by the highlighted numbers in Column G, ORA was able to obtain
16 adjusted-recorded 2014 expenditures for each of the projects listed on the table. In
17 every case, SDG&E spent considerably less than it had forecast. As calculated from
18 the data on Line 5 of Table 6-3, SDG&E spent 71.6% of what it had requested in its
19 testimony.⁸

⁵ Ex. SDG&E-09-R, p. JDJ-59, lines 1 and 2.

⁶ Ex. SDG&E-09-R, p. JDJ-59, lines 27 and 28.

⁷ Ex. SDG&E-09-R, p. JDJ-61, lines 5 and 6. It should be noted that all expenditures associated with The City of San Diego Surcharge Program will be reimbursed by the City. Therefore, this capital project is much like a Contribution, and any adjustments made to this program by ORA (or any intervenor) should not impact the revenue requirement.

⁸ For 2014, SDG&E requested total expenditures of \$41.764 million yet actually spent only \$29.918 million. (See Line 5, Columns F and G, in Table 6-3.) $\$29.918 \div \$41.764 = 71.6\%$.

TABLE 6-3
ELECTRIC DISTRIBUTION CAPITAL EXPENDITURES FOR SDG&E
 Recorded and Forecast Expenditures For Franchise Capital Projects

Line #	Budget Code	Franchise Capital Projects	Recorded -- 000s of Constant 2013 \$					Forecast -- 000s of Constant 2013 \$								
								2014			2015			2016		
			2009	2010	2011	2012	2013	SDG&E	ORA - Recorded	SDG&E > ORA	SDG&E	ORA	SDG&E > ORA	SDG&E	ORA	SDG&E > ORA
A.	B.	C.	D.	E.	F.	G.	H.	I.	J.	K.	L.	M.	N.			
1	205	Electric Dist. Street/Hwy Relocations	\$4,969	\$7,846	\$5,859	\$8,042	\$3,684	\$6,079	\$4,262	\$1,817	\$6,079	\$4,262	\$1,817	\$6,079	\$4,262	\$1,817
2	210	Conversion from OH to UG Rule 20A	\$14,149	\$12,573	\$11,234	\$14,665	\$12,508	\$13,025	\$8,339	\$4,686	\$13,025	\$8,339	\$4,686	\$13,025	\$8,339	\$4,686
3	213	City of San Diego Surcharge Program	\$25,892	\$24,585	\$26,533	\$20,134	\$16,157	\$22,660	\$17,317	\$5,343	\$22,660	\$17,317	\$5,343	\$22,660	\$17,317	\$5,343
4		Recorded Projects Completed Prior to 2014	\$33	\$69	(\$2)	(\$3)	(\$153)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5		TOTAL	\$45,043	\$45,073	\$43,624	\$42,838	\$32,196	\$41,764	\$29,918	\$11,846	\$41,764	\$29,918	\$11,846	\$41,764	\$29,918	\$11,846

 = 2014 adjusted-recorded capital from March 6, 2015 email to ORA.

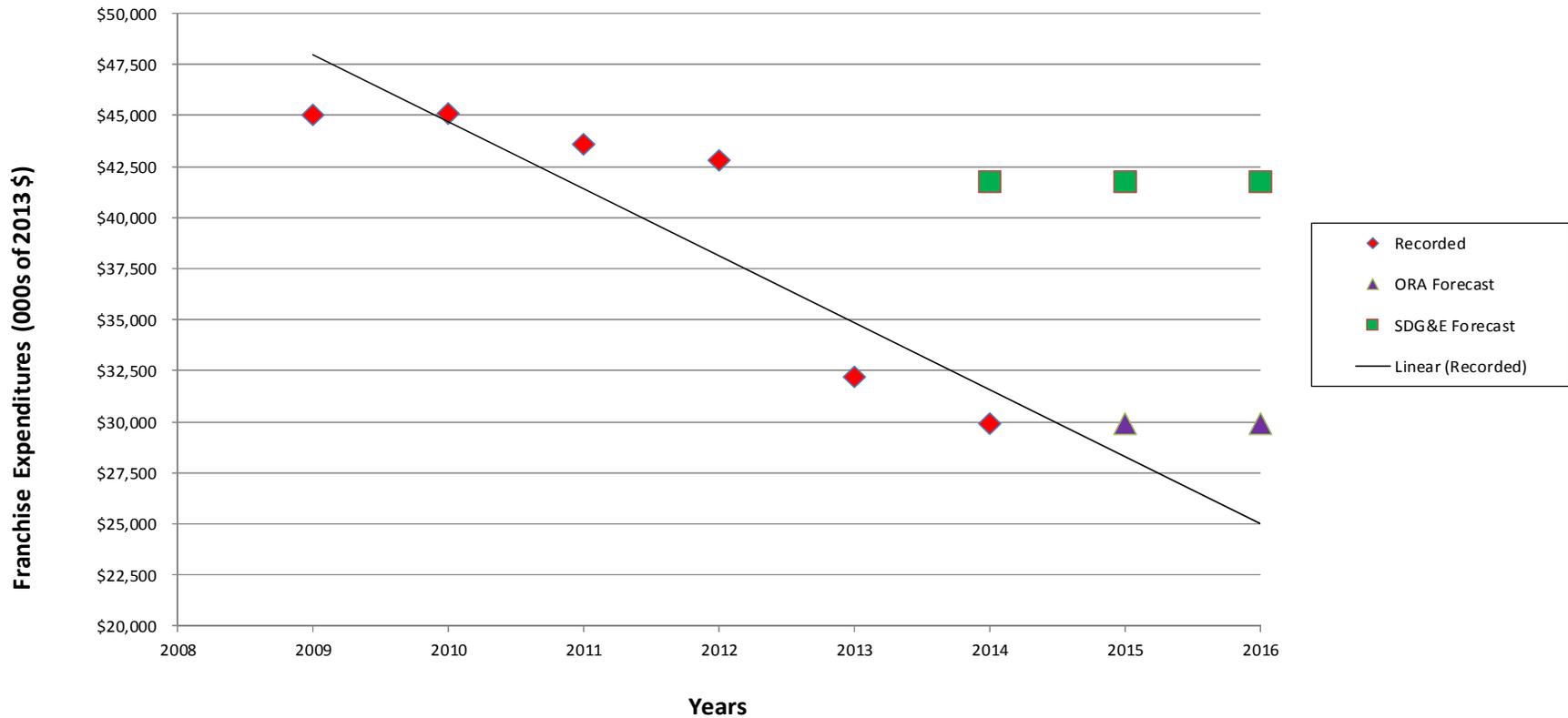
1 **B. Averaging Versus Trends**

2 SDG&E has used a 5-year average of historical data (2009 through 2013) to
3 derive its 2014 forecast for each of the projects shown on Table 6-3. Because
4 expenditures can vary from year to year, SDG&E believes that a 5-year average
5 best levels out the peaks and valleys of historical data. SDG&E has assumed that
6 the level of expenditures that it forecast for 2014 would also occur for 2015 and
7 2016.

8 ORA agrees that the use of averages is usually appropriate when recorded
9 data show that expenditures are randomly increasing and decreasing over the years.
10 However, when ORA examined the total historical expenditures for this category,
11 ORA did not observe that expenditures were fluctuating randomly. As shown on
12 Graph 6-2 (below), recorded data show that there has been a steady downward
13 trend in total expenditures for the Franchise capital category over the last five years.
14 Applying a least squares analysis to the recorded expenditures shows a declining
15 trend. ORA is not continuing this decline into its 2015 and 2016 forecasts. Instead,
16 ORA is assuming that the expenditures will stabilize at the 2014 level and has used
17 that adjusted-recorded amount for 2015 and 2016. This methodology duplicates the
18 consistent expenditure levels that SDG&E has forecast for 2014, 2015, and 2016,
19 which are identical for all three years.

20 ORA recommends that special attention be paid to the 2014 expenditures
21 shown on Graph 6-2. SDG&E's 2014 forecast (indicated by the green square) is
22 much larger than the actual adjusted-recorded expenditure for that year (indicated
23 by the red diamond). If SDG&E's averaging approach had been used, the total
24 expenditures for the Franchise category in 2014 would have been greatly
25 overstated.

Graph 6-2
HISTORICAL AND FORECAST SDG&E ELECTRIC CAPITAL EXPENDITURES
CPUC Jurisdiction -- 000s of Constant 2013 \$



1 **C. Conclusions**

2 ORA is not recommending that any of SDG&E’s proposed capital projects be
3 eliminated. Instead, ORA has simply incorporated adjusted-recorded 2014 data into
4 its spreadsheet (and into the RO computer model) and revised the proposed
5 expenditures to reflect the downward trend in total expenditures for the Franchise
6 capital category. As shown on Graph 6-2, it is clear that SDG&E’s use of averages
7 results in forecasts that are higher than are reasonable. As shown in Line 5 of Table
8 6-3, ORA is recommending Franchise capital expenditures of \$29.918 million in
9 2014, 2015, and 2016. ORA’s expenditures are \$11.846 million less than SDG&E’s
10 in all three years. ORA’s forecasts are straightforward and logical and should be
11 adopted.

12 **VII. DISCUSSION AND ANALYSIS OF NEW BUSINESS PROJECTS**

13 The majority of the expenditures associated with the New Business capital
14 category are a direct result of customer requests. Those requests encompass new
15 services, upgraded services, new distribution systems for commercial and residential
16 developments, system modifications to accommodate new customer load, customer
17 requested relocations, rearrangements, removals, and the conversion of existing
18 overhead lines to underground.⁹

19 **A. Overview of SDG&E’s Request**

20 Line 4 of Table 6-1 provides an overview of the total recorded and forecast
21 expenditures for this project category. However, that table does not show the
22 individual capital projects that constitute the New Business category. Table 6-4
23 (shown below), provides a much more detailed look at this category.

⁹ Ex. SDG&E-09-R, p. JDJ-19, lines 17 through 21.

TABLE 6-4
ELECTRIC DISTRIBUTION CAPITAL EXPENDITURES FOR SDG&E
Recorded and Forecast Expenditures For New Business Capital Projects

Line #	Budget Code	New Business Capital Projects	Recorded -- 000s of Constant 2013 \$					Forecast -- 000s of Constant 2013 \$								
								2014			2015			2016		
			2009	2010	2011	2012	2013	SDG&E	ORA - Recorded	SDG&E > ORA	SDG&E	ORA	SDG&E > ORA	SDG&E	ORA	SDG&E > ORA
A.	B.	C.	D.	E.	F.	G.	H.	I.	J.	K.	L.	M.	N.			
1	202	Electric Meters and Regulators	\$2,105	\$5,036	\$5,463	\$2,613	\$1,204	\$4,036	\$1,491	\$2,545	\$4,488	\$2,219	\$2,269	\$4,769	\$2,681	\$2,088
2	204	Electric Distribution Easements	\$1,352	\$3,573	\$1,736	\$1,343	\$1,144	\$3,968	\$1,450	\$2,518	\$4,857	\$2,158	\$2,699	\$5,084	\$2,607	\$2,477
3	211	Conversion From OH-UG Rule 20B and 20C	\$4,697	\$1,415	\$3,755	\$1,291	\$757	\$1,806	\$1,870	(\$64)	\$1,985	\$2,784	(\$799)	\$2,184	\$3,362	(\$1,178)
4	215	OH Residential NB	\$569	\$258	\$436	\$369	\$359	\$588	\$457	\$131	\$775	\$680	\$95	\$937	\$822	\$115
5	216	OH Non-Residential NB	\$1,145	\$447	\$758	\$723	\$740	\$1,129	\$439	\$690	\$1,490	\$653	\$837	\$1,802	\$789	\$1,013
6	217	UG Residential NB	\$2,329	\$2,140	\$2,570	\$3,243	\$3,527	\$9,084	\$3,827	\$5,257	\$11,988	\$5,697	\$6,291	\$14,503	\$6,881	\$7,622
7	218	UG Non-Residential NB	\$3,693	\$1,891	\$2,356	\$2,634	\$2,390	\$6,858	\$2,986	\$3,872	\$9,051	\$4,445	\$4,606	\$10,950	\$5,369	\$5,581
8	219	New Business Infrastructure	\$4,040	\$2,930	\$4,038	\$3,889	\$4,263	\$11,117	\$3,904	\$7,213	\$14,670	\$5,811	\$8,859	\$17,749	\$7,019	\$10,730
9	224	New Service Installations	\$4,858	\$3,874	\$3,530	\$3,427	\$3,595	\$5,184	\$3,784	\$1,400	\$6,840	\$5,633	\$1,207	\$8,274	\$6,803	\$1,471
10	225	Customer Requested Upgrades And Services	\$9,538	\$6,929	\$7,205	\$7,118	\$7,923	\$8,001	\$9,157	(\$1,156)	\$8,800	\$13,631	(\$4,831)	\$9,678	\$16,464	(\$6,786)
11	235	Transformer & Meter Installations	\$8,045	\$6,259	\$4,979	\$5,100	\$3,857	\$5,256	\$4,006	\$1,250	\$5,709	\$5,963	(\$254)	\$6,032	\$7,203	(\$1,171)
12	2264	Sustainable Community Energy Systems	\$6,036	\$7,387	\$7,971	\$4,478	\$2,247	\$1,565	\$267	\$1,298	\$0	\$397	(\$397)	\$0	\$480	(\$480)
13		Recorded Projects Completed Prior to 2014	\$24	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
14		TOTAL	\$48,431	\$42,139	\$44,797	\$36,228	\$32,006	\$58,592	\$33,638	\$24,954	\$70,653	\$50,071	\$20,582	\$81,962	\$60,480	\$21,482

= 2014 adjusted-recorded capital from March 6, 2015 email to ORA.

1 As shown by the highlighted numbers in Column G, ORA was able to obtain
2 adjusted-recorded 2014 expenditures for each of the projects listed on the table. In
3 all but two instances, SDG&E spent considerably less than it had forecast. As
4 calculated from the data on Line 14 of Table 6-4, SDG&E spent 57.4% of what it had
5 requested in its testimony.¹⁰

6 **B. SDG&E Forecasts Based on Construction Units**

7 SDG&E states that the New Business budgeting process relies heavily on the
8 Construction Unit Forecast, an in-depth assessment that combines data on permit
9 activity and the most current outlook on housing and land development presented by
10 a variety of economic forecasting entities. The Construction Unit Forecast is
11 produced by SDG&E and typically updated twice a year. Construction units (CUs)
12 are a concept unique to SDG&E.¹¹

13 According to SDG&E's testimony, forecasting residential electric construction
14 units is the primary forecasting effort for SDG&E. Gas units are derived by applying
15 a set of historical ratios of completed gas units to completed electric units, to a
16 forecast of residential electric units. The forecast of residential electric units is
17 driven by a forecast of San Diego county residential building permits. The forecast
18 of residential permits is usually permit information gathered locally, combined with
19 permit information provided by a nationally recognized data service provider, such
20 as Global Insight, Inc. The information gathered locally is used to develop a current-
21 year and one-year-out forecast of permits. The permit series provided by the
22 national data service provider is merged with the front end of the permit forecast to
23 create a five-year set of residential permits to use as a model driver.¹²

¹⁰ For 2014, SDG&E requested total expenditures of \$58.592 million yet actually spent only \$33.638 million. (See Line 14, Columns F and G, in Table 6-4.) $\$33.638 \div \$58.592 = 57.4\%$.

¹¹ Ex. SDG&E-09-R, p. JDJ-19 and 20, lines 28 through 1.

¹² Ex. SDG&E-09-R, p. JDJ-20, lines 16 through 25.

1 ORA investigated SDG&E's forecasts for this capital area and tried to
2 understand the derivation of the CUs that form the basis of those forecasts. ORA
3 expected that there would be a strong correlation between the increase in active
4 meters and the number of CUs that had been derived. However, ORA found that
5 the ratio of new meters installed in a given year to the number of CUs derived for
6 that same year ranged from a low of 0.910 in 2014 to a high of 2.319 in 2010.
7 Similarly, ORA observed large variability in the year-to-year percentage change in
8 the number of CUs, a variability that did not seem to track with customer growth.
9 For example SDG&E calculated that there were 10,035 CUs used in 2014, a 76.52%
10 increase over the 5,685 CUs used in 2013. However, for the same two years, the
11 change in the number of active meters that were installed went up only 21% (from
12 7,540 new meters in 2013 to 9,128 new meters in 2014).

13 Further compounding ORA's concerns with the use of CUs was the fact that
14 ORA was not able to match SDG&E's forecast for the growth in building permits,
15 which form the basis for calculating the CUs. According to SDG&E, since reaching a
16 low in 2010/2011, construction activity has slowly increased. The most recent
17 forecasts suggest that there will be a marked increase in coming years, starting in
18 2014. SDG&E's forecasts in this GRC reflect those anticipated increases.¹³ If that
19 expected increase actually occurs, ORA would expect to see a large increase in
20 building permits, which would in turn lead to a large increase in CUs. However,
21 ORA could not find a large increase in building permits. In fact, using data from the
22 US Census, annual 2014 building permits in San Diego County decreased 17% as
23 compared to 2013.¹⁴

24 In ORA's view, there is a problem in using CUs to derive forecasts for New
25 Business capital forecasts. There appears to be a problem in gathering accurate
26 data on building permits, or a problem in translating that data into CUs that
27 accurately reflect the building activity that will take place in SDG&E's service

¹³ Ex. SDG&E-09-R, p. JDJ-21, lines 1 through 5.

¹⁴ 2014 US Census data compiled by the National Association of Home Builders. See Appendix B.

1 territory. As described previously, SDG&E's 2014 adjusted-recorded expenditures
2 for this capital category only amounted to 57.4% of what it had forecast. Given
3 these concerns, ORA does not base its forecasts on CUs.

4 In its experience with other energy utilities, ORA usually encounters forecasts
5 for this type of customer-driven capital category that are largely based on gross
6 meter sets. In the most recent Southern California Edison (SCE) GRC, SCE
7 analyzed historical gross meter sets and found that there were strong correlations
8 between those meter sets and the various units of work that made up the capital
9 areas. This strong correlation would be expected, since common sense dictates that
10 forecasts for customer-driven capital projects should be related to the number of
11 new customers being hooked up in a given year. Just as important, ORA has the
12 expertise and the raw data to derive its own independent forecasts for gross meter
13 sets. Conversely, ORA does not have access to the Global Insight or building permit
14 data that SDG&E used to develop its CUs. As a last resort, ORA requested that
15 SDG&E provide some sort of quantitative mechanism whereby forecasts for electric
16 customer growth could be translated into forecasts for CUs. Unfortunately, SDG&E
17 was not able to accommodate ORA's request.¹⁵

18 As discussed above, the evidence uncovered by ORA, coupled with how
19 poorly adjusted-recorded 2014 expenditures tracked SDG&E's CU-developed 2014
20 forecasts, led ORA to conclude that it would have to develop its own forecasting
21 methodology, one that did not utilize CUs. Lacking the time and the raw data to
22 develop the detailed correlations that SCE used to link gross meter sets to
23 customer-driven capital forecasts, ORA had to rely on simpler relationships. Using
24 the previously discussed premise that gross meter set additions should track capital
25 forecasts, ORA investigated the simple (but logical) principle that SDG&E's 2014
26 adjusted-recorded expenditures could be linked to the number of new meters that
27 were installed in that year. For subsequent years, ORA has assumed that the
28 percentage increase in new meters (as compared to 2014) would also cause a

¹⁵ SDG&E response to ORA-SDG&E-DR-042-GAW, Q. 7.

1 similar increase to the forecast for capital expenditures. To develop these
2 calculations, ORA developed Table 6-5, (shown below).

3 ORA has developed its own estimates for gross meter sets, which it
4 incorporated into Table 6-5. As shown on that table, ORA has calculated that gross
5 meter set increases for 2015 will be 48.85% higher than meter set increases for
6 2014. Similarly, meter set increases for 2016 will be 20.79% higher than 2015.
7 Using adjusted-recorded 2014 capital expenditures as a base, ORA increased each
8 of the capital forecasts by 48.85% to derive its 2015 forecast; 2015 forecasts were
9 then increased by 20.79% to derive its 2016 forecast.

10 ORA's concludes that its percentage-based methodology is more accurate
11 than the CU-based methodology used by SDG&E. ORA recommends that the
12 Commission use the logical methodology developed by ORA rather than SDG&E's
13 methodology that has been shown to provided unreliable forecasts.

14 **C. Conclusions**

15 ORA is not recommending that any of SDG&E's proposed capital projects be
16 eliminated. Instead, ORA has simply incorporated adjusted-recorded 2014 data into
17 its spreadsheet (and into the RO computer model) and revised the proposed
18 expenditures to reflect the link between gross meter sets and forecasts for customer-
19 driven capital projects. Such a linkage is utilized by other energy utilities, and makes
20 logical sense. Forecasts for the New Business capital category should not be based
21 on SDG&E's demonstrably unreliable CU-based methodology.

22 Adjusted-recorded 2014 data clearly shows that SDG&E's use of this
23 methodology results in forecasts that are higher than are reasonable. As shown in
24 Line 14 of Table 6-4, ORA is recommending New Business capital expenditures of
25 \$33.638 million in 2014, \$50.071 million in 2015, and \$60.480 million 2016. ORA's
26 expenditures are \$24.954 million less that SDG&E's in 2014, \$20.582 million less in
27 2015, and \$21.482 million less in 2016. ORA is also recommending that in future
28 rate cases, the Commission direct SDG&E to use meter increases as the basis of its
29 capital forecasts for customer-driven projects. ORA's forecasts are straightforward
30 and logical and should be adopted.

TABLE 6-5
ELECTRIC DISTRIBUTION CAPITAL EXPENDITURES FOR SDG&E
Recorded and Forecast Average Annual Electric Customers

Line #	Customer Classifications	Recorded -- Average Annual Electric Customers					Forecast -- Average Annual Electric Customers										
							2014			2015			2016				
		2009	2010	2011	2012	2013	SDG&E	ORA	Increase Over Prior Year	SDG&E	ORA	Increase Over Prior Year	Prior Year %	SDG&E	ORA	Increase Over Prior Year	Prior Year %
A.	B.	C.	D.	E.	F.	G.		I.	J.		K.	L.	M.		N.		
1	Residential	--	--	--	--	1,249,227	1,257,698	1,258,223		1,270,654	1,271,680			1,286,981	1,288,091		
2	Small Commercial	--	--	--	--	122,602	123,111	123,142		123,754	123,717			124,362	124,278		
3	Medium / Large Commercial / Industrial	--	--	--	--	24,042	24,262	24,086		24,576	24,262			24,875	24,436		
4	Agriculture	--	--	--	--	3,372	3,379	3,379		3,379	3,379			3,379	3,379		
5	Lighting	--	--	--	--	5,975	5,896	5,896		5,841	5,841			5,790	5,790		
6	TOTAL	1,375,326	1,382,924	1,390,704	1,397,678	1,405,218	1,414,346	1,414,726	9,508	1,428,204	1,428,879	14,153	48.85%	1,445,387	1,445,974	17,095	20.79%

1 **VIII. DISCUSSION AND ANALYSIS OF RELIABILITY /**
2 **IMPROVEMENTS PROJECTS**

3 SDG&E claims that maintaining the same level of reliability will be a
4 challenge, particularly with increased new demands to the system, such as the influx
5 of rooftop solar installations and electric vehicles. SDG&E states that for over 20
6 years, it has done a substantial amount of work to improve reliability. SDG&E has
7 replaced cable, installed sectionalizing devices to reduce the impacts of outages,
8 has installed Supervisory Control and Data Acquisition (SCADA) devices for better
9 operational control, has replaced poor performing vintages of equipment, has
10 monitored trends, and has made other operational improvements to provide reliable
11 electric service. In addition to work that still needs to be done in the core areas of
12 reliability, SDG&E is now faced with the need to do more to mitigate the impacts
13 associated with customer-owned photovoltaic systems and plug-in electric
14 vehicles.¹⁶ As the name suggests, the capital projects that make up the Reliability /
15 Improvements capital category are intended to maintain the reliability of SDG&E's
16 electric distribution system.

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

18 Line 5 of Table 6-1 shows the total recorded and forecast expenditures for
19 this project category. However, that table does not show the individual capital
20 projects that constitute the Reliability / Improvements category. Table 6-6 (shown
21 below) provides a much more detailed look at this category.

¹⁶ Ex. SDG&E-09-R, p. JDJ-22, lines 19 through 28.

TABLE 6-6
ELECTRIC DISTRIBUTION CAPITAL EXPENDITURES FOR SDG&E
Recorded and Forecast Expenditures For Reliability / Improvements Capital Projects

Line #	Budget Code	Reliability / Improvements Capital Projects	Recorded -- 000s of Constant 2013 \$					Forecast -- 000s of Constant 2013 \$								
								2014			2015			2016		
			2009	2010	2011	2012	2013	SDG&E	ORA - Recorded	SDG&E > ORA	SDG&E	ORA	SDG&E > ORA	SDG&E	ORA	SDG&E > ORA
A.	B.	C.	D.	E.	F.	G.	H.	I.	J.	K.	L.	M.	N.			
1	203	Distribution Substation Reliability	\$2,017	\$418	\$616	\$460	\$1,627	\$1,526	\$675	\$851	\$1,538	\$1,538	\$0	\$1,634	\$1,634	\$0
2	226	Management of OH Distribution Service	\$12,962	\$7,822	\$10,825	\$8,338	\$6,414	\$9,273	\$4,651	\$4,622	\$9,273	\$9,273	\$0	\$9,273	\$9,273	\$0
3	227	Management of UG Distribution Service	\$3,628	\$3,572	\$3,484	\$4,091	\$3,765	\$3,708	\$2,729	\$979	\$3,708	\$3,708	\$0	\$3,708	\$3,708	\$0
4	230	Replacement of Underground Cables	\$10,847	\$11,967	\$17,057	\$12,797	\$9,692	\$13,005	\$7,898	\$5,107	\$13,339	\$13,339	\$0	\$13,049	\$13,049	\$0
5	236	Capital Restoration of Service	(\$716)	\$7,728	\$4,279	\$3,412	\$4,521	\$3,844	\$4,722	(\$878)	\$3,844	\$3,844	\$0	\$3,844	\$3,844	\$0
6	1269	Rebuild Pt. Loma 69/12kV Substation	\$0	\$0	\$0	\$0	\$429	\$234	\$1,314	(\$1,080)	\$11,042	\$9,962	\$1,080	\$0	\$0	\$0
7	6254	Emergency Transformer & Switchgear	\$11	\$465	\$1,348	\$20	\$87	\$386	\$22	\$364	\$386	\$386	\$0	\$386	\$386	\$0
8	6260	Remove 4kV Substations from Service	\$1,398	\$653	\$59	\$50	\$5	\$3,096	\$0	\$3,096	\$3,032	\$3,032	\$0	\$2,965	\$2,965	\$0
9	8162	Substation Security	\$8	\$111	\$475	\$511	\$834	\$834	\$400	\$434	\$834	\$834	\$0	\$834	\$834	\$0
10	8261	Vista 4kV Substation RFS	\$13	\$0	\$0	\$0	\$0	\$884	\$4	\$880	\$0	\$0	\$0	\$0	\$880	(\$880)
11	10261	Advanced Technology	\$0	\$0	\$0	\$0	\$0	\$12,264	\$0	\$12,264	\$12,360	\$12,264	\$96	\$12,324	\$12,360	(\$36)
12	11247	Advanced Energy Storage	\$0	\$0	\$687	\$10,123	\$5,843	\$2,562	\$0	\$2,562	\$0	\$2,562	(\$2,562)	\$0	\$0	\$0
13	11261	Sewage Pump Station Rebuilds	\$0	\$0	\$0	\$3,242	\$26	\$2,228	\$15	\$2,213	\$1,616	\$0	\$1,616	\$0	\$3,829	(\$3,829)
14	12125	Sunnyside 69/12kV Rebuild	\$0	\$0	\$0	\$368	\$1,476	\$1,414	\$712	\$702	\$450	\$1,152	(\$702)	\$0	\$0	\$0
15	12266	Condition Based Maintenance Program	\$0	\$0	\$0	\$1,171	\$3,779	\$3,852	\$1,809	\$2,043	\$3,876	\$2,043	\$1,833	\$3,780	\$7,656	(\$3,876)
16	13242	Rebuild Kearny 69/12kV Substation	\$0	\$0	\$0	\$0	\$79	\$857	\$39	\$818	\$15,255	\$818	\$14,437	\$650	\$15,905	(\$15,255)
17	14243	Microgrid Systems for Reliability	\$0	\$0	\$0	\$0	\$0	\$5,628	\$1,075	\$4,553	\$5,796	\$4,553	\$1,243	\$5,676	\$11,472	(\$5,796)
18	93240	Distribution Circuit Reliability Construction	\$11,971	\$6,735	\$5,178	\$4,920	\$1,541	\$10,218	\$2,335	\$7,883	\$10,611	\$10,611	\$0	\$10,380	\$10,380	\$0
19	94241	Power Quality Program	\$29	\$70	\$32	\$130	\$27	\$140	\$1	\$139	\$187	\$187	\$0	\$233	\$233	\$0
20	99282	Replace Obsolete Substation Equipment	\$5,707	\$3,928	\$5,979	\$4,845	\$376	\$5,895	\$277	\$5,618	\$5,787	\$5,787	\$0	\$5,691	\$5,691	\$0
21		Recorded Projects Completed Prior to 2014	\$18,977	\$14,082	\$15,977	\$29,566	\$21,393	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
22		TOTAL	\$66,852	\$57,551	\$65,996	\$84,044	\$61,914	\$81,848	\$28,678	\$53,170	\$102,934	\$85,893	\$17,041	\$74,427	\$104,099	(\$29,672)

= 2014 adjusted-recorded capital from March 6, 2015 and March 27, 2015 emails to ORA.
 = completion dates changed by SDG&E in response to DR ORA-054-GAW.

1 Several things are immediately apparent on this table. First, as indicated by
2 the highlighted numbers in Column G, ORA was able to obtain adjusted-recorded
3 2014 data at the individual project level. Of the 20 projects comprising this category,
4 SDG&E spent more than it had forecast in only two instances. Also noticeable are
5 the numerous projects that are shaded green. As will be discussed later in this
6 portion of ORA’s testimony, those projects have been flagged by SDG&E as having
7 revisions to their completion dates.

8 **B. Changes to Completion Dates**

9 In a data request, ORA asked SDG&E to provide ORA with any changes to
10 the proposed operational dates of the 20 projects that constitute this capital
11 category.¹⁷ In its response, SDG&E provided a table that showed the most recent
12 estimates for the completion dates of each of the 20 projects. (A copy of this table is
13 included in Appendix C of this testimony.) After comparing the original dates with
14 the new ones, ORA determined that eight projects had revised dates (which are
15 shaded in green in Table 6-6).

16 All but one of these changed dates resulted in the projects being completed
17 later (sometimes several years later) than had originally been estimated. In most
18 instances, ORA has accepted and used the new completion dates provided by
19 SDG&E. However, in one instance, ORA has concluded that the completion date
20 should be extended beyond the revised date provided by SDG&E; this will be
21 discussed in the following sections. ORA updated the completion dates in the RO
22 model to match the new information. The following discussions briefly outline the
23 changes that were made by ORA to each of the eight projects for which the
24 completion dates have been changed.

25 **1. Rebuild Point Loma 69/12kV Substation**

26 This project originally had a 12/31/15 completion date, which was updated to
27 the third quarter of 2015. This is the one capital project that had a revised

¹⁷ ORA-SDG&E-054-GAW, Q. 1g.

1 completion date that was earlier than SDG&E's original estimate. ORA is assuming
2 that this project will be completed on time, so the remaining unspent costs should be
3 included in 2015, as shown on Line 6 of Table 6-6.

4 **2. Vista 4kV Substation**

5 This project originally had a 12/31/14 completion date, which was extended
6 until the third quarter of 2016. As shown on Line 10 of Table 6-6, almost nothing
7 was spent on this project in 2014. Since the completion date has been extended all
8 the way to 2016, ORA is assuming that nothing will be spent in 2015 either.
9 Therefore, ORA has pushed all of the remaining costs for this project into 2016.

10 **3. Advanced Technology**

11 Originally, this project was classified by SDG&E as being a Blanket project,
12 meaning that it was ongoing with no specific completion date, and would be booked
13 to plant on a regular basis. However, SDG&E has reclassified this project and has
14 now given it a completion date of the fourth quarter of 2016. As can be seen on Line
15 11 of Table 6-6, this is a large project, with SDG&E proposing to spend \$36.948
16 million over the period 2014 through 2016. However, as can also be seen on Line
17 11, SDG&E spent nothing on this project in 2014. ORA considers this a worthwhile
18 project, but doubts that SDG&E can complete all \$36.948 million in the remaining
19 two years. Since nothing was spent in 2014, ORA is concerned whether SDG&E will
20 even be able to complete what it has forecast for 2015 and 2016, let alone also
21 adding the unspent 2014 expenditures into those two years. In ORA's judgment, it is
22 much more reasonable to assume that this project will be completed with a one-year
23 lag. Therefore, 2014 expenditures are being pushed out until 2015, and 2015
24 expenditures are pushed out until 2016. ORA assumes that the remaining
25 expenditures will be completed sometime in 2017. This is the one project that ORA
26 has extended beyond SDG&E's revised date.

27 **4. Advanced Energy Storage**

28 This is the second example of Blanket project that has been reclassified by
29 SDG&E and given a completion date. In this instance, the new completion date is
30 the fourth quarter of 2015. As shown on Line 12 Table 6-6, nothing was spent on

1 this project in 2014. Therefore, ORA has assumed that all of the costs for this
2 project should be moved into 2015.

3 **5. Sewage Pump Station Rebuilds**

4 This is the third example of a Blanket project that has been reclassified by
5 SDG&E and given a completion date, in this case the second quarter of 2016. As
6 shown on Line 13 of Table 6-6, almost nothing was spent on this project in 2014.
7 Since the completion date has been extended all the way to 2016, ORA is assuming
8 that nothing will be spent in 2015 either. Therefore, ORA has pushed all of the
9 remaining costs for this project into 2016.

10 **6. Condition Based Maintenance Project**

11 This is the fourth example of a Blanket project that has been reclassified by
12 SDG&E and given a completion date, in this case the fourth quarter of 2016. ORA
13 considers this to be a worthwhile project, and is hopeful that it will be completed by
14 the end of 2016, even though (as shown on Line 15 of Table 6-6) SDG&E only spent
15 \$1.809 million in 2014 (out of a proposed \$3.852 million). However, ORA is
16 assuming that SDG&E will be able to complete the remainder of its 2014 forecast in
17 2015, and that the 2015 and 2016 forecasts are of a size such that that both can be
18 completed in 2016.

19 **7. Rebuild Kearney 69/12kV Substation**

20 This project originally had a 3/31/16 completion date, which was extended
21 until the fourth quarter of 2016. As shown on Line 16 of Table 6-6, almost nothing
22 was spent on this project in 2014. Since the original 2016 completion date has been
23 extended, ORA is assuming that this indicates that much of the proposed 2015
24 expenditures will be shifted into 2016. Therefore, ORA is assuming that SDG&E will
25 be able to complete the remainder of its 2014 forecast in 2015, and that the 2015
26 and 2016 forecasts are of a size such that that both can be completed in 2016.

27 **8. Microgrid Systems for Reliability**

28 This is the fifth example of a Blanket project that has been reclassified by
29 SDG&E and given a completion date, in this case the fourth quarter of 2016. ORA

1 considers this to be a worthwhile project, and is hopeful that it will be completed by
2 the end of 2016, even though (as shown on Line 17 of Table 6-6) SDG&E only spent
3 \$1.075 million in 2014 (out of a proposed \$5.628 million). However, ORA is
4 assuming that SDG&E will be able to complete the remainder of its 2014 forecast in
5 2015, and that the 2015 and 2016 forecasts are of a size such that that both can be
6 completed in 2016.

7 **C. Conclusions**

8 ORA is not recommending that any of SDG&E's proposed capital projects be
9 eliminated. Instead, ORA has simply incorporated adjusted-recorded 2014 data into
10 its spreadsheet (and into the RO computer model) and revised the proposed
11 expenditure patterns to conform to the new completion dates that were provided by
12 SDG&E. (The one exception to this completion date revision was for the Advanced
13 Technology project, which, because of its size, ORA felt could not be completed until
14 2017.) As shown in Line 22 of Table 6-6, ORA is recommending Reliability /
15 Improvement capital expenditures of \$28.678 million in 2014, \$85.893 million in
16 2015, and \$104.099 million in 2016. ORA's expenditures are \$53.170 million less
17 that SDG&E's in 2014, \$17.041 million less in 2015, and \$29.672 million higher in
18 2016. ORA's forecasts are straightforward and logical and should be adopted.

19 **IX. DISCUSSION AND ANALYSIS OF SAFETY & RISK** 20 **MANAGEMENT PROJECTS**

21 SDG&E states that a new major category of projects/budgets since the TY
22 2012 GRC is the Safety & Risk Management category. (However, ORA notes that
23 SDG&E has been expending capital dollars in this category going back at least as
24 far as 2009.) The capital investments requested in this category address the
25 mitigation of safety and physical system security risks. For example, a large
26 percentage of the capital projects in this category are focused on increasing safety,
27 by reducing wildfire risk. SDG&E further states that while wildfire risk reduction has

1 been ingrained in its core business activities, the sole purpose of several of the
2 projects in this category is to reduce risk by performing capital upgrades.¹⁸

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

4 Line 6 of Table 6-1 provides an overview of the total recorded and forecast
5 expenditures for this project category. However, that table does not show the
6 individual capital projects that constitute the Safety & Risk Management category.
7 Table 6-7 (shown below), provides a much more detailed look at this category.

8 As shown by the highlighted numbers in Column G, ORA was able to obtain
9 adjusted-recorded 2014 expenditures for each of the projects listed on the table. In
10 only two instances did SDG&E spend more than it had forecast. As calculated from
11 the data on Line 12 of Table 6-7, SDG&E spent only 69% of what it had requested in
12 its testimony.¹⁹

13 ORA is aware of the increased emphasis that the Commission is placing on
14 safety. As can be seen on Table 6-7, ORA is proposing adjustments to only two of
15 the 10 capital projects that are included in the Safety & Risk Management capital
16 category.

17 **B. Fire Risk Management Projects**

18 Lines 5 and 9 on Table 6-7 show that there are two Fire Risk Management
19 (FiRM) capital projects included in this capital category. The first project covers
20 capital expenditures for Phases 1 and 2 of FiRM, while the second project covers
21 expenditures for Phase 3.

¹⁸ Ex. SDG&E-09-R, p. JDJ-23, lines 15 through 20.

¹⁹ For 2014, SDG&E requested total expenditures of \$26.209 million yet actually spent only \$18.083 million. (See Line 12, Columns F and G, in Table 6-7.) $\$18.083 \div \$26.209 = 69\%$.

TABLE 6-7
ELECTRIC DISTRIBUTION CAPITAL EXPENDITURES FOR SDG&E
Recorded and Forecast Expenditures For Safety & Risk Management Capital Projects

Line #	Budget Code	Safety & Risk Management Capital Projects	Recorded -- 000s of Constant 2013 \$					Forecast -- 000s of Constant 2013 \$								
								2014			2015			2016		
			2009	2010	2011	2012	2013	SDG&E	ORA - Recorded	SDG&E > ORA	SDG&E	ORA	SDG&E > ORA	SDG&E	ORA	SDG&E > ORA
A.	B.	C.	D.	E.	F.	G.	H.	I.	J.	K.	L.	M.	N.			
1	6247	Replacement of Live-Front Equipment	\$785	\$814	\$1,470	\$890	\$253	\$843	\$383	\$460	\$843	\$843	\$0	\$843	\$843	\$0
2	11243	SDG&E Weather Instrumentation Install	\$0	\$0	\$1,041	\$1,963	\$834	\$285	\$414	(\$129)	\$0	\$0	\$0	\$0	\$0	\$0
3	12256	Powerworkz	\$0	\$0	\$0	\$3,405	\$2,836	\$468	\$596	(\$128)	\$0	\$0	\$0	\$0	\$0	\$0
4	12265	C1215-Fire Risk Mitigation Project	\$0	\$0	\$0	\$0	\$454	\$186	\$59	\$127	\$0	\$0	\$0	\$0	\$0	\$0
5	13247	Fire Risk Mitigation (FIRM) - Phases 1 and 2	\$0	\$0	\$0	\$0	\$3,225	\$13,056	\$8,368	\$4,688	\$12,780	\$12,780	\$0	\$12,496	\$17,184	(\$4,688)
6	13255	C441-Pole Loading Study/Fire Risk Mitigation	\$0	\$0	\$0	\$0	\$352	\$186	\$81	\$105	\$0	\$0	\$0	\$0	\$0	\$0
7	13266	Distribution Aerial Marking and Lighting	\$0	\$0	\$0	\$0	\$0	\$140	\$0	\$140	\$140	\$140	\$0	\$140	\$140	\$0
8	13282	Future CNF Blanket Budget	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,598	\$2,598	\$0	\$7,106	\$7,106	\$0
9	14247	Fire Risk Mitigation (FIRM) - Phase 3	\$0	\$0	\$0	\$0	\$0	\$11,045	\$8,182	\$2,863	\$24,323	\$11,045	\$13,278	\$44,950	\$24,323	\$20,627
10	14249	SF6 Switch Replacement	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$9,888	\$9,888	\$0
11		Recorded Projects Completed Prior to 2014	\$219	\$639	\$745	\$2,206	\$3,087	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
12		TOTAL	\$1,004	\$1,453	\$3,256	\$8,464	\$11,041	\$26,209	\$18,083	\$8,126	\$40,684	\$27,406	\$13,278	\$75,423	\$59,484	\$15,939

[Redacted] = 2014 adjusted-recorded capital from March 6, 2015 and March 27, 2015 emails to ORA.

1 **1. FiRM Phases 1 and 2**

2 ORA considers this to be an important capital project. However, ORA has
3 noticed that adjusted-recorded 2014 data indicate that SDG&E spent only 64.1% of
4 its 2014 forecast, and that occurred when recorded expenditures for Phase 3 were
5 much less than expected.²⁰ ORA is optimistically assuming that, even with major
6 Phase 3 expenditures occurring in 2015 and 2016, SDG&E will still be able to
7 complete Phases 1 and 2 according to its original schedule. In order for this to
8 occur, ORA is assuming that SDG&E will complete its original forecast for 2015, and
9 will then be able to complete its original forecast for 2016 in addition to the unspent
10 2014 expenditures.

11 **2. FiRM Phase 3**

12 This is the second of two Fire Risk Management (FiRM) capital projects. As
13 shown in Table 6-7, both FiRM projects were earmarked by large 2014 forecasts
14 (roughly \$13 million for the initial project, and roughly \$11 million for this one), and
15 by the fact that SDG&E failed, by a fairly large margin, to spend as much as it had
16 forecast in 2014 for each. What distinguishes these two FiRM projects from one
17 another is that for the first, forecast spending in subsequent years is lower than the
18 2014 forecast, while this second FiRM project has 2015 and 2016 forecasts that are
19 multiple times larger than 2014. For the first FiRM project, ORA has concluded that
20 the 2015 and 2016 forecasts (which are lower than 2014) are not large enough to
21 prevent SDG&E from "making up" the unspent 2014 expenditures by the end of
22 2016.

23 However, for this second FiRM project, SDG&E's 2015 forecast is over twice
24 as large as 2014, while the 2016 forecast is over four times as large. Since SDG&E
25 underspent its 2014 forecast by \$2.863 million, and since its 2014 forecast was by
26 far its lowest of the 3-year cycle, ORA does not believe that SDG&E will be able to
27 "make up" the unspent 2014 forecast in 2015 and 2016. In fact, ORA is not

²⁰ As shown on Line 5 of Table 6-7, adjusted-recorded 2014 expenditures amounted to \$8.368 million out of a forecast of \$13.056 million. $\$8.368 \text{ million} \div \$13.056 \text{ million} = 64.1\%$.

1 convinced that SDG&E's forecasts for 2015 and 2016 are achievable, since they are
2 multiple times larger than the 2014 forecast (which SDG&E failed to complete). In
3 ORA's judgment, a more realistic forecast for this FiRM project is \$11.045 million in
4 2015, which is SDG&E's initial forecast for 2014; ORA's forecast for 2016 is \$24.323
5 million, which is SDG&E's forecast for 2015. In effect, ORA is recommending that
6 SDG&E's initial forecasts be shifted by one year, with this \$80 million project
7 ultimately being completed in 2017.

8 **C. Conclusions**

9 ORA is not recommending that any of SDG&E's proposed capital projects be
10 eliminated. Instead, ORA has simply incorporated adjusted-recorded 2014 data into
11 its spreadsheet (and into the RO computer model) and revised the proposed
12 expenditures to reflect the budgetary constraints imposed by the two FiRM capital
13 projects. As shown in Line 12 of Table 6-7, ORA is recommending Safety & Risk
14 Management capital expenditures of \$18.083 million in 2014, \$27.406 million in
15 2015, and \$59.484 million in 2016. ORA's expenditures are \$8.126 million less than
16 SDG&E's in 2014, \$13.278 million less in 2015, and \$15.939 million less in 2016.
17 ORA's forecasts are straightforward and logical and should be adopted.

APPENDIX A

SDG&E Response to Data Request ORA-SDG&E-026-GAW

Below are all 27 Capacity/Expansion Budgets, as listed in Table 3 on page JDJ-27 of Exhibit SDG&E-9

<i>Budget</i>	<i>Budget Description</i>	1 Does GO 131-D apply to project?	2 If NO, explain why	3 If exempt, provide exemption	4 If YES, provide PTC/CPCN approval date & decision number	5 If no PTC/CPCN, provide approved Advice Letter	6 If no PTC/CPCN/AL, under what authority is SDGE proceeding?	7 Most Recent ISD (In-Service-Date)
209	Field Shunt Capacitors	No	Voltage below 50kV	Exempt per GO 131-D, Section III (C)			Exempt from GO 131-D	N/A - Blanket Budget
228	Reactive Small Capital Projects	No	Voltage below 50kV	Exempt per GO 131-D, Section III (C)			Exempt from GO 131-D	N/A - Blanket Budget
2252	Mira Sorrento 138/12KV Substation	Yes			PTC Decision 12-12-017, Dated 12-20-12			Q4-2014
2258	Salt Creek Substation & New Circuits	Yes			PTC Application 13-09-014 (pending), Dated 9-25-13			Q3-2016
7245	Telegraph Canyon- 138/12kV Bank & C1226	No	Substation Modification	Exempt per GO 131-D, Section III (B)			Exempt from GO 131-D	Q4-2015
7249	San Ysidro- New 12kV Circuit 1202	No	Voltage below 50kV	Exempt per GO 131-D, Section III (C)			Exempt from GO 131-D	Q3-2015
7253	C1161 BD - New 12kV Circuit	No	Voltage below 50kV	Exempt per GO 131-D, Section III (C)			Exempt from GO 131-D	Q3-2015
8253	Substation 12kV Capacitor Upgrades	No	Voltage below 50kV	Exempt per GO 131-D, Section III (B)			Exempt from GO 131-D	N/A - Blanket Budget
8259	C917, CC: New 12kV Circuit	No	Voltage below 50kV	Exempt per GO 131-D, Section III (C)			Exempt from GO 131-D	Q3-2016
9271	C1259, MAR: New 12kV Circuit	No	Voltage below 50kV	Exempt per GO 131-D, Section III (C)			Exempt from GO 131-D	Q3-2016
9274	C1282 LC - New Circuit	No	Voltage below 50kV	Exempt per GO 131-D, Section III (C)			Exempt from GO 131-D	Q3-2016
9276	Poseidon - Cannon Substation Modification	No	Substation Modification	Exempt per GO 131-D, Section III (B)			Exempt from GO 131-D	Q4-2014
10266	C350, LI: Reconductor & Voltage Regulation	No	Voltage below 50kV	Exempt per GO 131-D, Section III (C)			Exempt from GO 131-D	Q4-2014
10270	C1049, CSW: New 12kV Circuit	No	Voltage below 50kV	Exempt per GO 131-D, Section III (C)			Exempt from GO 131-D	Q4-2014
10272	Middletown 4kV Substation RFS	No	Voltage below 50kV	Exempt per GO 131-D, Section III (C)			Exempt from GO 131-D	Q2-2015
11244	C928, POM: New 12kV Circuit	No	Voltage below 50kV	Exempt per GO 131-D, Section III (C)			Exempt from GO 131-D	Q3-2016
11257	Camp Pendleton 12kV Service	No	Voltage below 50kV	Exempt per GO 131-D, Section III (C)			Exempt from GO 131-D	Q1-2014
11259	C100, OT: 12kV Circuit Extension	No	Voltage below 50kV	Exempt per GO 131-D, Section III (C)			Exempt from GO 131-D	Q3-2016
13250	C108, B: 12kV Circuit Reconfiguration	No	Voltage below 50kV	Exempt per GO 131-D, Section III (C)			Exempt from GO 131-D	Q3-2014
13251	PO: Reconductor	No	Voltage below 50kV	Exempt per GO 131-D, Section III (C)			Exempt from GO 131-D	Q3-2015
13259	C1243, RMV: Reconductor	No	Voltage below 50kV	Exempt per GO 131-D, Section III (C)			Exempt from GO 131-D	Q3-2015
13260	C1288, MSH: New 12kV Circuit	No	Voltage below 50kV	Exempt per GO 131-D, Section III (C)			Exempt from GO 131-D	Q4-2014
13263	C982: OL-Voltage Regulation	No	Voltage below 50kV	Exempt per GO 131-D, Section III (C)			Exempt from GO 131-D	Q3-2016
13285	C1090, JM: New 12kV Circuit	No	Voltage below 50kV	Exempt per GO 131-D, Section III (C)			Exempt from GO 131-D	Q4-2015
13286	C1120, BQ: New 12kV Circuit	No	Voltage below 50kV	Exempt per GO 131-D, Section III (C)			Exempt from GO 131-D	Q3-2016
13288	GH New 12kV Circuit	No	Voltage below 50kV	Exempt per GO 131-D, Section III (C)			Exempt from GO 131-D	Q3-2016
97248	Distribution System Capacity Improvement	No	Voltage below 50kV	Exempt per GO 131-D, Section III (C)			Exempt from GO 131-D	N/A - Blanket Budget

APPENDIX B

12/31/14	Building Permits By States and Metro Areas **											
	All data in thousands											
	SINGLE-FAMILY				MULTIFAMILY				TOTAL			
	YTD	YTD	YTD	YEAR	YTD	YTD	YTD	YEAR	YTD	YTD	YTD	YEAR
	Dec-14	Dec-13	% CHG	2013	Dec-14	Dec-13	% CHG	2013	Dec-14	Dec-13	% CHG	2013
UNITED STATES	630.3	617.5	2%	620.8	408.2	358.9	14%	370.0	1,038.5	976.4	6%	990.8
PACIFIC	68.2	67.0	2%	67.1	69.1	63.6	9%	66.4	137.4	130.6	5%	133.5
ALASKA	1.11	0.89	25%	0.9	0.40	0.19	105%	0.2	1.51	1.08	40%	1.1
* Anchorage AK	0.67	0.50	34%	0.5	0.22	0.08	184%	0.1	0.89	0.58	54%	0.6
* Fairbanks AK	0.05	0.06	-4%	0.1	-	-	-	-	0.05	0.06	-4%	0.1
CALIFORNIA	38.60	36.66	5%	37.0	44.33	42.37	5%	43.7	82.93	79.03	5%	80.7
Bakersfield CA	1.79	1.60	12%	1.8	0.45	0.66	-32%	0.5	2.24	2.26	-1%	2.3
Chico CA	0.33	0.31	6%	0.3	0.20	0.16	20%	0.2	0.53	0.48	11%	0.5
EI Centro CA	0.12	0.27	-56%	0.3	0.06	-	-	0.0	0.17	0.27	-35%	0.3
Fresno CA	1.47	2.05	-28%	2.4	0.28	0.32	-12%	0.4	1.75	2.36	-26%	2.8
Hanford-Corcoran CA	0.23	0.22	3%	0.3	0.16	0.01	3100%	0.0	0.39	0.23	71%	0.3
* Los Angeles-Long Beach-Santa Ana CA	8.12	7.48	9%	7.5	18.77	16.45	14%	17.7	26.90	23.93	12%	25.2
Madera CA	0.21	0.21	-2%	0.2	0.00	0.00	0%	0.0	0.21	0.22	-2%	0.2
Merced CA	0.16	0.10	60%	0.1	0.00	0.01	-33%	0.1	0.16	0.10	54%	0.2
Modesto CA	0.30	0.22	34%	0.3	0.05	0.04	28%	0.0	0.35	0.26	33%	0.3
Napa CA	0.03	0.04	-32%	0.1	0.07	0.15	-52%	0.2	0.10	0.19	-48%	0.2
Oxnard-Thousand Oaks-Ventura CA	0.47	0.38	23%	0.4	0.74	0.53	40%	0.6	1.20	0.91	33%	1.0
Redding CA	0.20	0.17	18%	0.2	-	-	-	-	0.20	0.17	18%	0.2
* Riverside-San Bernardino-Ontario CA	7.18	6.36	13%	6.5	3.05	2.87	6%	2.9	10.24	9.23	11%	9.3
* Sacramento--Arden-Arcade--Roseville CA	3.70	3.57	4%	3.5	0.41	0.66	-38%	0.7	4.11	4.22	-3%	4.2
Salinas CA	0.21	0.18	11%	0.2	0.07	0.06	15%	0.2	0.28	0.25	12%	0.4
* San Diego-Carlsbad-San Marcos CA	2.48	2.57	-3%	2.6	4.39	5.69	-23%	5.7	6.87	8.26	-17%	8.3
* San Francisco-Oakland-Fremont CA	3.71	3.60	3%	3.7	6.28	7.38	-15%	7.3	10.00	10.98	-9%	10.9
* San Jose-Sunnyvale-Santa Clara CA	1.87	1.89	-1%	1.9	7.99	5.84	37%	5.9	9.86	7.73	28%	7.8
San Luis Obispo-Paso Robles CA	0.50	0.40	25%	0.5	0.07	0.10	-26%	0.2	0.57	0.50	15%	0.6
Santa Barbara-Santa Maria-Goleta CA	0.34	0.28	20%	0.4	0.27	0.01	1836%	0.0	0.61	0.29	106%	0.4
Santa Cruz-Watsonville CA	0.13	0.13	-2%	0.2	0.08	0.08	-2%	0.1	0.21	0.21	-2%	0.3
Santa Rosa-Petaluma CA	0.38	0.38	-1%	0.5	0.21	0.35	-39%	0.6	0.59	0.73	-19%	1.0
* Stockton CA	1.24	1.07	16%	1.1	0.02	0.07	-72%	0.1	1.26	1.14	10%	1.1
Vallejo-Fairfield CA	0.61	0.49	24%	0.5	-	0.24	-100%	0.2	0.61	0.73	-16%	0.8
Visalia-Porterville CA	0.79	0.74	7%	0.9	0.26	0.08	237%	0.1	1.05	0.81	29%	0.9
Yuba City CA	0.25	0.14	73%	0.2	0.01	0.05	-79%	0.0	0.26	0.19	35%	0.2
HAWAII	2.20	2.33	-6%	2.4	0.87	1.53	-43%	1.5	3.07	3.87	-21%	3.9
* Honolulu HI	0.88	1.14	-23%	1.1	0.70	1.50	-53%	1.5	1.58	2.64	-40%	2.6

APPENDIX C

SDG&E Response to Data Request ORA-SDG&E-054-GAW

Below are all 20 Reliability/improvements Budgets, as listed in Table 10 on page JDJ-89 of Exhibit SDG&E-9

<i>Budget</i>	<i>Budget Description</i>	1 Does GO 131-D apply to project?	2 If NO, explain why	3 If exempt, provide exemption	4 If YES, provide PTC/CPCN approval date & decision number	5 If no PTC/CPCN, provide approved Advice Letter	6 If no PTC/CPCN/AL, under what authority is SDGE proceeding?	7 Most Recent ISD (In-Service-Date)
203	Distribution Substation Reliability	No	Substation Modification	Exempt per GO 131-D, Section III (B)			Exempt from GO 131-D	N/A - Blanket Budget
226	Management Of OH Dist. Service	No	Voltage below 50kV	Exempt per GO 131-D, Section III (C)			Exempt from GO 131-D	N/A - Blanket Budget
227	Management Of UG Dist. Service	No	Voltage below 50kV	Exempt per GO 131-D, Section III (C)			Exempt from GO 131-D	N/A - Blanket Budget
230	Replacement Of Underground Cables	No	Voltage below 50kV	Exempt per GO 131-D, Section III (C)			Exempt from GO 131-D	N/A - Blanket Budget
236	Capital Restoration Of Service	No	Voltage below 50kV	Exempt per GO 131-D, Section III (C)			Exempt from GO 131-D	N/A - Blanket Budget
1269	Rebuild Pt Loma 69/12kV Substation	No	Substation Modification	Exempt per GO 131-D, Section III (B)			Exempt from GO 131-D	Q3-2015
6254	Emergency Transformer & Switchgear	No	Substation Modification	Exempt per GO 131-D, Section III (B)			Exempt from GO 131-D	N/A - Blanket Budget
6260	Remove 4kv Subs. From Service	No	Voltage below 50kV	Exempt per GO 131-D, Section III (C)			Exempt from GO 131-D	N/A - Blanket Budget
8162	Substation Security	No	Substation Modification	Exempt per GO 131-D, Section III (B)			Exempt from GO 131-D	N/A - Blanket Budget
8261	Vista 4kV Substation RFS	No	Voltage below 50kV	Exempt per GO 131-D, Section III (C)			Exempt from GO 131-D	Q3-2016
10261	Advanced Technology	No	Voltage below 50kV	Exempt per GO 131-D, Section III (C)			Exempt from GO 131-D	Q4-2016
11247	Advanced Energy Storage	No	Substation Modification	Exempt per GO 131-D, Section III (B)			Exempt from GO 131-D	Q4-2015
11261	Sewage Pump Station Rebuilds	No	Substation Modification	Exempt per GO 131-D, Section III (B)			Exempt from GO 131-D	Q2-2016
12125	Sunnyside 69/12kv Rebuild	No	Substation Modification	Exempt per GO 131-D, Section III (B)			Exempt from GO 131-D	Q2-2015
12266	Condition Based Maintenance Program	No	Substation Modification	Exempt per GO 131-D, Section III (B)			Exempt from GO 131-D	Q4-2016
13242	Rebuild Kearny 69/12kV Substation	No	Substation Modification	Exempt per GO 131-D, Section III (B)			Exempt from GO 131-D	Q4-2016
14243	Microgrid Systems for Reliability	No	Voltage below 50kV	Exempt per GO 131-D, Section III (C)			Exempt from GO 131-D	Q4-2016
93240	Distribution Circuit Reliability Construction	No	Voltage below 50kV	Exempt per GO 131-D, Section III (C)			Exempt from GO 131-D	N/A - Blanket Budget
94241	Power Quality Program	No	Voltage below 50kV	Exempt per GO 131-D, Section III (C)			Exempt from GO 131-D	N/A - Blanket Budget
99282	Replace Obsolete Substation Equipment	No	Substation Modification	Exempt per GO 131-D, Section III (B)			Exempt from GO 131-D	N/A - Blanket Budget