Company: San Diego Gas & Electric Company (U 902 M)
Proceeding: 2019 General Rate Case
Application: A.17-10-007/-008 (cons.)
Exhibit: SDG&E-215

SDG&E

REBUTTAL TESTIMONY OF WILLIAM H. SPEER

ELECTRIC DISTRIBUTION O&M

JUNE 18, 2018

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

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SDG&E REBUTTAL TESTIMONY OF WILLAM H. SPEER

ELECTRIC DISTRIBUTION O&M

I. SUMMARY OF DIFFERENCES

TOTAL O&M - Constant 2016 ($000)			
	Base Year 2016	**Test Year 2019**	**Change**
SDG&E	**122,467**	**168,626***	**46,159**
ORA	**122,467**	**133,019**	**10,552**
FEA	**122,467**	**134,915**	**12,448**

* This is the figure shown in testimony[1]. A reduced figure of $168,184 is requested as a result of errata corrections addressed in the "Correction of Errata" section near the end of this rebuttal.

II. INTRODUCTION

The following rebuttal testimony regarding San Diego Gas & Electric Company's (SDG&E) request for electric distribution operations and maintenance (O&M) expenses addresses the following testimony:

- The Office of Ratepayer Advocates (ORA) April 13, 2018, Report on Electric Distribution Expenses (Exhibit ORA-5, witness Tamara Godfrey);[2]
- The Federal Executive Agencies (FEA);[3]
- The Coalition of California Utility Employees (CUE);[4]

[1] May 7, 2018, Second Revised Direct Testimony of William H. Speer, Exhibit SDG&E-15-2R (Ex. SDG&E-15-2R (Speer)).

[2] April 13, 2018, Prepared Direct Testimony of Tamera Godfrey, Report on the Results of Operations for San Diego Gas & Electric Company Southern California Gas Company Test Year 2019 General Rate Case, SDG&E – Electric Distribution Expenses, Exhibit ORA-05 (Ex. ORA-05 (Godfrey)).

[3] May 14, 2018, Direct Testimony of Ralph C. Smith, CPA, on Behalf of The Federal Executive Agencies, Exhibit FEA-1 (Ex. FEA-1 (Smith)).

[4] May 14, 2018, Prepared Testimony of David Marcus on Behalf of the Coalition of California Utility Employees (CUE (Marcus)).

- San Diego Consumers' Action Network (SDCAN);[5] and
- Small Business Utility Advocates (SBUA)[6]

In this rebuttal testimony, SDG&E will also address the correction of some errata in Mr. Speer's testimony that was identified in the course of discovery or other research. These items represent a total of $0.442 million to be reduced from the requested funding for Test Year (TY) 2019 for Electric Distribution O&M.

SDG&E's Risk Assessment Mitigation Phase (RAMP) report proposed mitigation activities that are expected to reduce identified safety risk levels. Consistent with this RAMP analysis, SDG&E included RAMP mitigation activities into the GRC. Given the California Public Utilities Commission's (Commission or CPUC) direction to complete the RAMP phase and to assess risk reduction effectiveness, SDG&E expected other parties to discuss and evaluate these programs and provide explanation as to why they should or should not funded in whole or in part. It appears to SDG&E that in many cases other parties seemed not to address the RAMP risk-mitigation aspect of proposed programs and instead relied most heavily on historical expense averages as their preferred forecast methodologies. ORA, for example, appears to have derived its recommendations by calculating averages without considering the RAMP attributes or other merits of a particular program. ORA sums up its analytical method as follows:

> ORA analyzed the adjusted recorded expenses and the forecast estimates for each individual cost category to calculate its TY estimates for SDG&E's Electric Distribution Non-Shared O&M expenses.[7]

And,

> ORA reviewed SDG&E's testimony, workpapers, data request responses, and historical expense levels for these cost categories and the forecasts are reasonable and comparable to historical expense levels.[8]

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[5] May 14, 2018, Prepared testimony of Michael Shames, SDCAN Evaluation of San Diego Gas and Electric Company's Customer Service and External Affairs Activities (SDCAN (Shames)); May 14, 2018, Prepared testimony of Lawrence Conery on behalf of SDCAN (SDCAN (Conery)).

[6] May 14, 2018, Opening Testimony of Lillian Rafii, on behalf of Small Business Utility Advocates (SBUA (Rafii)).

[7] Ex. ORA-05 (Godfrey) at 5.

[8] Ex. ORA-05 (Godfrey) at 7.

These illustrate ORA's general approach to analysis as a straightforward comparison of historical spend, without consideration of the incremental needs of changing activities or increased focus on efforts at risk mitigation. SDG&E does not agree with this approach, as explained herein and from a risk management perspective in the rebuttal testimony of Diana Day, Gregory Flores, and Jamie York.[9]

As a general matter, it should not be assumed that failure to address any individual issue in this rebuttal implies agreement by SDG&E with the proposal made by other parties. SDG&E believes that the forecasts contained in its direct testimony, performed at the program level, are based on sound estimates of its revenue requirements at the time of testimony preparation.

A summary of the recommendations of the parties follows.

A. ORA

ORA issued its report on Electric Distribution Expenses on April 13, 2018.[10] The following is a summary of ORA's forecast for SDG&E's Electric Distribution O&M expenditures compared to SDG&E's TY 2016 forecast:[11]

- ORA's estimate is $8.531 million for Construction Services, which is $10.636 million lower than SDG&E's forecast of $19.167 million.
- ORA's estimate is $17.517 million for Electric Distribution Operations, which is $5.029 million lower than SDG&E's forecast of $22.546 million.
- ORA's estimate is $1.721 million for Kearny Operations Services, which is $.412 million lower than SDG&E's forecast of $2.133 million.
- ORA's estimate is $0.822 million for Project Management, which is $0.525 million lower than SDG&E's forecast of $1.347 million.
- ORA's estimate is $37.823 million for the Electric Regional Operations, which is $8.866 million lower than SDG&E's revised forecast of $46.689 million.[12]

[9] June 18, 2018, Rebuttal Risk Management Testimony of Diana Day, Gregory Flores, and Jamie York, Exhibit SCG-202/SDG&E-202 at II.A.2.

[10] Ex. ORA-5 (Godfrey).

[11] Ex. ORA-5 (Godfrey) at 1-3.

[12] This amount was reflected in my second revised direct testimony. Ex. SDG&E-15-2R (Speer) at WHS-18. The amount shown in my original direct testimony was $42.792 million.

- ORA's estimate is $4.759 million for Substation Construction and Operations, which is $0.563 million lower than SDG&E's forecast of $5.322 million.
- ORA's estimate is $2.867 million for Distribution and Engineering, which is $1.432 million lower than SDG&E's forecast of $4.299 million.
- ORA's estimate is $0 for Asset Management, which is $4.610 million lower than SDG&E's forecast of $4.610 million.[13]
- ORA's estimate is $2.751 million for Technology Solutions and Reliability, which is $0.509 million lower than SDG&E's forecast of $3.260 million.
- ORA's estimate is $3.079 million for Emergency Management, which is $2.265 million lower than SDG&E's forecast of $5.344 million.
- ORA's estimate is $1.630 million for Strategic Planning and Business Optimization, which is $0.760 million lower than SDG&E's forecast of $2.390 million.
- ORA opposes SDG&E's proposal for the two-way balancing account treatment of Vegetation Management expenses, and recommends continuing the one-way balancing account.
- ORA does not dispute SDG&E's TY expense forecasts for the following items: Compliance Management, Distribution Operations Enterprise Geographic Information System Standards, Distributed Energy Resources, Grid Operations, Major Projects, Officer, Regional Public Affairs, Reliability and Capacity, Service Order Team, Skills and Compliance Training, System Protection, Technology Utilization, Troubleshooting, Vegetation Management.

ORA does not take issue with SDG&E's proposal to not adopt a Performance Based Ratemaking (PBR) mechanism in this GRC.

B. FEA

FEA submitted testimony on May 14, 2018. The following is a summary of FEA's position(s):

[13] Rebuttal testimony in support of my direct testimony proposal for a comprehensive Asset Management program is Mr. Kenneth J. Deremer, Exhibit SDG&E-251 (Asset Management). Mr. Deremer also adopts my direct testimony and workpapers supporting SDG&E's Asset Management proposal.

- FEA's estimate is $34.329 million for Electrical Regional Operations, which is $8.463 million lower than SDG&E's forecast of $46.689[14] million.[15]
- FEA's estimate is $15.130 million for Electric Distribution Operations, which is $7.416 million lower than SDG&E's forecast of $22.546 million.[16]
- FEA's estimate is $5.659 million for Construction Services, which is $13.508 million lower than SDG&E's forecast of $19.167 million.[17]
- FEA's estimate is $3.368 million for Vegetation Management (Pole Brush), which is $0.373 million lower than SDG&E's forecast of $3.741 million.[18]
- FEA's estimate is $22.620 million for Vegetation Management (Tree Trimming), which is $0.054 million lower than SDG&E's forecast of $22.674 million.[19]

FEA opposes SDG&E's request for two-way balancing accounts for Vegetation Management.[20]

C. CUE

CUE submitted testimony on May 14, 2018. The following is a summary of CUE's position(s):

- CUE recommends additional O&M expenses corresponding with its recommended increases in SDG&E capital programs.[21]

CUE opposes SDG&E's proposal for the removal of the PBR mechanism.[22]

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[14] This amount was reflected in my second revised direct testimony. Ex. SDG&E-15-2R (Speer) at WHS-18. The amount shown in my original direct testimony was $42.792 million.

[15] Ex. FEA-1 (Smith) at 76:5-16, 77:1-2.

[16] Ex. FEA-1 (Smith) at 79:11-14, 80:1-3.

[17] Ex. FEA-1 (Smith) at 83:15-18, 84:1-3.

[18] Ex. FEA-1 (Smith) at 87:7-14.

[19] Ex. FEA-1 (Smith) at 91:10-13, 92:1-4.

[20] Ex. FEA-1 (Smith) at 88:17-23.

[21] CUE (Marcus) at 71-73, 73-76, 81-82.

[22] CUE (Marcus) at 94-99.

D. SDCAN

SDCAN submitted testimony on May 14, 2018. The following is a summary of SDCAN's position(s):

- SDCAN's estimate is $0.683 million for Regional Public Affairs, which is $1.119 million lower than SDG&E's forecast of $1.802 million.[23]
- SDCAN states that SDG&E's proposed increase in Project Management is excessive and should be reduced.[24]
- SDCAN asserts the outage data that SDG&E has provided to the Commission may be highly inaccurate. SDCAN recommends the Commission compel SDG&E to make historical outage data available at the SDG&E website and to subject its outage data to independent and random verification.[25]
- SDCAN recommends the Commission redirect at least $5.0 million of revenues SDG&E seeks for distribution O&M or capital expenditures and obligate the utility to fund an independent distribution management analysis overseen by the Commission's Safety and Enforcement Division (SED).[26]
- SDCAN recommends the expansion of customer service guarantees to customers using third-party contractors for trenching and to add service level agreements with third-party contractors.[27]
- SDCAN recommends that SDG&E's Planning Department must be adequately funded to allow it to complete Project Work Order packages in three to five days.[28]

[23] SDCAN (Shames) at 46-49.

[24] SDCAN (Shames) at 7; 44-46.

[25] SDCAN (Shames) at 23.

[26] SDCAN (Shames) at 26-33.

[27] SDCAN (Shames) at 36-39; SDCAN (Conery) at 4.

[28] SDCAN (Conery) at 4.

E. SBUA

SBUA submitted testimony on May 14, 2018. The following is a summary of SBUA's position(s):

- SBUA recommends the Commission should require SDG&E to spend 25% of its $4.299 million Electric Distribution and Engineering request on outreach efforts targeted at small businesses.[29]
- SDG&E should offer Renewable Meter Adapters for small business customers.[30]

III. REBUTTAL TO PARTIES' O&M PROPOSALS

A. CONSTRUCTION SERVICES

NON-SHARED O&M - Constant 2016 ($000)			
	Base Year 2016	**Test Year 2019**	**Change**
SDG&E	**5,363**	**19,167**	**13,804**
ORA	**5,363**	**8,531**	**3,168**
FEA	**5,363**	**5,659**	**296**

1. ORA and FEA

ORA and FEA take issue with the test year O&M forecast for the Construction Services work group.[31] ORA's methodology for developing its TY 2019 estimate involves subtracting SDG&E's TY 2016 GRC authorized amount for Construction Services from its TY 2019 GRC request, and adding this incremental amount to the 2016 Base Year actual expenditures. FEA's methodology for its TY 2019 estimate is a two-year average. SDG&E disagrees with these approaches. SDG&E's 2016 authorized amount in the Construction Services work group has no direct bearing on future expenditures, as my testimony will demonstrate below. SDG&E has developed detailed cost estimates for its proposed programs. ORA and FEA have not taken issue with the methodology contained within SDG&E's estimates, but have simply substituted their own methodologies without describing any issues with SDG&E's chosen method.

[29] SBUA (Rafii) at 14.

[30] SBUA (Rafii) at 15.

[31] Ex. ORA-05 (Godfrey) at 7-18; Ex. FEA-1 (Smith) at 80-84.

ORA and FEA's methodologies also do not discuss the specific programs, which include RAMP-related items, that should be reduced or removed to meet the TY 2019 estimate. The RAMP Report proposed mitigation activities that would reduce identified safety risk levels. Consistent with this RAMP analysis, SDG&E included RAMP mitigation activities into the GRC. Given the Commission's direction to complete the RAMP phase and to assess risk reduction effectiveness, ORA and FEA would be expected to provide evidence and support as to how or why the proposed RAMP activity does not reduce the safety risk or does not enhance safety.[32] The following issues have been raised and will be addressed further in my testimony:

- Capital programs with O&M components;
- 2016 authorized amount underspent;
- Costs spread across multiple work groups; and
- Detailed cost estimates.

a. Capital Programs with O&M Components

ORA's approach to forecasting Construction Services expenditures does not take into consideration the recommendations ORA has made regarding capital programs with O&M components included in the Construction Services work group, and would create a shortfall for capital-related O&M, if adopted. Many of the incremental programs in Construction Services are related to capital programs that will have O&M components, including Electric Integrity RAMP, 4kV Modernization, Bridged Cutout Switch Replacement, and PRiME. Those capital programs are described in the revised direct testimony of Alan F. Colton.[33] ORA's recommendations regarding those capital programs are contained in Exhibits ORA-06 (Roberts) and ORA-07 (Wilson). This information was clarified to ORA as part of a data request response:[34]

ORA asked:

SDG&E's testimony in Ex. SDG&E-15-R includes O&M projects associated with proposed capital projects (*i.e.,* Overhead small wire and connector replacement, 4 kV

[32] *See also* Rebuttal Risk Management Testimony of Diana Day, Gregory Flores, and Jamie York, Exhibit SCG-202/SDG&E-202.

[33] December 2017, Revised Direct Testimony of Alan F. Colton, Exhibit SDG&E-14-R.

[34] ORA-SDGE-DR-095-TLG, Q1a.

Modernization, Bridged Cutout Switch Replacements, Overhead Switch Inspection and High-Risk Switch Replacement, just to name a few examples (*see* page WHS-22).

SDG&E refers ORA to the testimony of Mr. Alan Colton included in Ex. SDG&E-14 for a discussion of the scope of work.

Provide a spreadsheet that identifies all proposed O&M projects and the detailed calculation of the forecast estimate that is associated with proposed capital projects that SDG&E refers to in Ex. SDG&E-15 (includes all Categories of Management) and that is directly linked to discussions in Mr. Alan Colton's testimony in Ex. SDG&E-14. In the response include a column with the specific page, line numbers, and account numbers for each O&M related project.

If SDG&E's proposed capital projects, which are linked to O&M expense forecasts, are not adopted by the Commission as discussed in SDG&E's capital testimony, provide documentation that explains how SDG&E's O&M expense request will be impacted.

SDG&E Responded:

Please see attached spreadsheet, ORA-SDGE-095-Q1a.xlsx.[35]

If SDG&E's proposed capital projects, which are linked to O&M expense forecasts, are not adopted by the Commission, the O&M expense forecasts will be removed or adjusted to match the revised capital project scope consistent with the final decision.

Given that the O&M expenses for these activities are tied to the capital projects, it would be reasonable for SDG&E to expect that the capital and O&M testimonies for ORA would be consistent. However, the ORA testimony on these Capital Programs by Mr. Roberts (Ex. ORA-

[35] The spreadsheet is not included; the content is replicated in the table below.

06)[36] and Mr. Wilson (Ex. ORA-07)[37] are at odds with the ORA testimony provided by Ms. Godfrey (Ex. ORA-05). The table below demonstrates the O&M costs to be incurred by these proposed capital programs in TY 2019.

Capital Program	Capital Budget Code	SDG&E Capital Requested Amount (000s of $)	ORA Capital Recommended Amount (000s of $)	Percent Difference	SDG&E O&M Requested Amount (000s of $)	Calculated O&M Required (000s of $)
Electric Integrity RAMP[38]	16252	52,406	44,421[39]	84.8%	3,470	2,943
4kV Modernization	62600	11,393	5,670[40]	49.8%	456	227
Bridged Cutout Switch Replacements	93240	4,949	2,46341	49.8%	898	447
PRiME	17254	40,430	34,26942	84.8%	9,153	7,762
					TOTAL	**11,379**

Using the ORA recommended funding amounts for these capital programs yields $11.379 million in associated O&M, as opposed to the $3.168 million recommended by Ms. Godfrey. This represents a serious shortfall in the link between the proposed capital programs and the related O&M funding necessary to see them to completion. SDG&E believes these programs should be funded in full. However, by way of comparison and incorporating ORA's recommended incremental capital costs, the additional associated O&M of $11.379 million

[36] April 13, 2018, Prepared Direct Testimony of Thomas Roberts, Report on the Results of Operations for San Diego Gas & Electric Company Southern California Gas Company Test Year 2019 General Rate Case, SDG&E – Electric Distribution Capital Expenditures Part 1 of 2, Exhibit ORA-06 (Ex. ORA-06 (Roberts)).

[37] April 13, 2018, Prepared Direct Testimony of Gregory A. Wilson, Report on the Results of Operations for San Diego Gas & Electric Company Southern California Gas Company Test Year 2019 General Rate Case, SDG&E – Electric Distribution Capital Expenditures Part 2 of 2, Exhibit ORA-06 (Ex. ORA-06 (Wilson)).

[38] Includes Overhead Small Wire and Connector Replacement Program and Overhead/Underground Switch Inspection and High-Risk Switch Replacements.

[39] Ex. ORA-07 (Wilson) at 17.

[40] Ex. ORA-06 (Roberts) at 24.

[41] Ex. ORA-06 (Roberts) at 24.

[42] Ex. ORA-07 (Wilson) at 17.

added to the TY 2016 costs of $5.363 million would yield a minimum of $16.742 million in the Construction Services work group to complete these projects at the level ORA has recommended. The Commission should adopt capital-related O&M for these identified project categories that is consistent with the amounts that are ultimately authorized for the projects.

b. 2016 Authorized Amount Underspent

ORA's and FEA's TY 2019 reduction is based on SDG&E's Base Year (BY) 2016 actual spending compared with the TY 2016 authorized amount in its Construction Services work group. SDG&E disagrees with this line of reasoning. SDG&E used BY 2016 actual costs when developing its TY 2019 estimates, and the 2016 GRC authorized amount was not used. SDG&E explained the difference between the BY 2016 actuals and the TY 2016 authorized amounts is largely due to a reorganization and reprioritization of efforts, as SDG&E explained in the data request response provided below.[43]

ORA asked:

During a conference call held on March 9 between SDG&E witness Will Speer, members of his support staff, Pete Girard and Tamera Godfrey/ORA, SDG&E agreed to provide additional information on several topics within the SDG&E-15 Electric Distribution O&M testimony.

3. Difference between the $16M allocated by the commission and the $5M actual spend in 2016 for the Construction Services workpaper:

SDG&E Responded:

In response to the conference call held on 3/9/2018, the SDG&E Electric Distribution O&M rate case team would like to explain the difference between the $16M allocated by the commission and the $5M dollar actual spend. There were several drivers behind the lower than authorized spending in 2016. Two organizations that were part of the Construction Services Workpaper during the 2016 GRC are now included in a different workpaper. Specifically, the Aviation Services Department and the Fire Coordination & Prevention organizations are now within the Emergency Management workpaper. Together, these two groups had a combined spend of $2.225M.

[43] ORA-SDGE-Oral-DR003-TLG, Q3, memorialized to ORA on March 27, 2018.

A reprioritization of efforts related to the Fire Risk Mitigation (FiRM) program has led to a shift from O&M-intensive activities to Capital-intensive activities, which attributed to the majority of the underrun. Specifically, at the time of the TY2016 forecast, FiRM had planned to do a large-scale O&M survey and engineering analysis on the lines and structures within the HRFA. However, as the project ramped up, the primary risk reduction activity of replacing conductor with known high failure rates became the priority over the analysis, which was primarily capital activity. ORA-SDGE-073-Q1a shows how the underruns were reallocated to new workgroups or workgroups with overruns.

The table in response to ORA-SDGE-073-Q1a is presented below (all values in thousands of 2016$):

Workpaper	Description	2016 GRC Amount Requested	2016 GRC Funding	2016 Adjusted Recorded Spend	Comments
1ED001.001	Reliability & Capacity	617	618	244	
1ED002.000	Construction Services	18,865	16,000	5,363	
1ED003.000	DistOps Enterprise Geographic Information System Standards	2,647	1,996	1,379	
1ED004.000	Electric Distribution Operations	15,315	14,000	15,590	
1ED006.000	Kearny Operations Services	2,239	1,900	1,349	
1ED008.000	Grid Operations	349	148	667	
1ED009.000	Officer	476	476	772	
1ED010.000	Project Management	1,368	800	660	
1ED011.000	Electric Regional Operations	38,338	35,449	35,613	
1ED013.000	Skills & Compliance Training	5,087	4,000	4,133	
1ED014.000	Service Order Team (SOT)	883	700	161	
1ED015.000	Substation C&O	6,912	6,710	4,582	
1ED017.000	System Protection	1,711	1,711	1,460	
1ED018.000	Distribution and Engineering	1,909	1,500	2,342	
1ED019.000	Asset Management	N/A	N/A	N/A	Not a formal workpaper during 2016 GRC
1ED020.000	Troubleshooting	7,965	7,965	7,896	

1ED021.000	Vegetation Management (Pole Brushing)	4,293	4,292	3,450	
1ED021.001	Vegetation Management (Tree Trimming)	24,559	24,559	23,005	
1ED022.000	Regional Public Affairs	1,687	1,687	1,965	
1ED023.000	Major Projects	147	147	119	
1ED024.000	Technology Utilization	1,948	1,500	1,042	
1ED025.000	Compliance Management	2,702	2,702	2,694	
1ED026.000	Tech Solutions and Reliability	N/A	N/A	2,544	Not a formal workpaper during 2016 GRC
1ED027.000	Emergency Management	N/A	N/A	2,503	Not a formal workpaper during 2016 GRC
1ED028.000	Strategic Planning and Business Optimization	N/A	N/A	1,630	Not a formal workpaper during 2016 GRC
1ED030.000	Distributed Energy Resources	N/A	N/A	1,304	Not a formal workpaper during 2016 GRC
	Total	**140,017**	**128,860**	**122,467**	

SDG&E's response to ORA-SDGE-073-Q1a clearly shows 2016 GRC authorized funding of $128.860 million, and 2016 adjusted recorded expenses of $122.467 million, or a difference of just 5% from authorized. The underspent amount allocated to Construction Services was re-prioritized and distributed among the other work groups.

c. Costs Spread Amongst Multiple Work Groups

Regarding SDG&E's incremental request for expenses related to Overhead/Underground Switch Inspection and High-Risk Switch Replacement projects (addressed as Switch Replacement projects in the following data request response) and Pole Risk Mitigation and Engineering (PRiME), ORA takes issue with costs for these programs being split amongst multiple work groups. ORA states that it appears SDG&E is requesting TY funding twice for the same activities.[44] This is not the case. SDG&E described the differences in the work being performed by the two work groups and showed that these are not overlapping activities in the following data request response:[45]

ORA asked:

During a conference call held on March 9 between SDG&E witness Will Speer, members of his support staff, Pete Girard and Tamera Godfrey/ORA, SDG&E agreed to

[44] Ex. ORA-05 (Godfrey) at 12-13.

[45] ORA-SDGE-Oral-DR003-TLG, Q4, memorialized to ORA on March 27, 2018.

provide additional information on several topics within the SDG&E-15 Electric Distribution O&M testimony.

4. Functional differences and cost estimates for programs that have work components performed in multiple workpapers:

SDG&E Responded:

In response to the conference call held on 3/9/2018, the SDG&E Electric Distribution O&M rate case team would like to clarify the functional differences and cost estimates for programs that have work components performed in multiple workpapers. The following programs have work components, and thus costs, in multiple workgroups:

- Switch Replacement Projects
  - *Overhead Switch Replacement*
  - *Underground Switch Replacement*
- PRiME

Switch Replacement Projects:

Costs for the Overhead and Underground Switch Replacement projects have components in both 1ED002 – Construction Services and 1ED011 – Electric Regional Operations (ERO). These projects each have an inspection component, and a construction component.[46]

SDG&E will use internal labor from its Electric Regional Operations department to inspect all non-FMO (Field Maintenance Only) switches. The inspections will consist of the Qualified Electrical Worker performing a visual inspection of the switch, and, whenever feasible, operating the switch to ensure it operates per specification. The labor costs associated with these inspections are captured in 1ED011 – Electric Regional Operations.

Switches that fail the inspection performed by ERO will initiate a construction project to replace the switch using contract labor from Construction Services. The construction job will involve obtaining permits, procuring material, scheduling the work, the removal of the existing switch, and the installation of the new switch. These tasks are

[46] *See* SDGE-15-WP at 35.

better suited to be performed by Construction Services, as they have the necessary resources to perform this type of work. Electric Regional Operations is more focused on maintenance and compliance activities. These non-labor construction costs are captured in 1ED002 – Construction Services.

PRiME

Costs for the PRiME project have components in both 1ED002 – Construction Services and 1ED018 – Distribution and Engineering. This project has an engineering analysis component,[47] and a construction component.[48]

SDG&E will use contract labor to perform the pole-loading analysis and design work associated with pole replacements and rearrangements. An engineering firm will be chosen to perform the detailed loading analysis of the poles including PLS-CADD modeling and as-builts where required. When the loading analysis demonstrates that a pole is loaded beyond our specifications, a contract design firm will create a design package for the pole replacement. The design package will include the necessary permits and construction drawings required for construction crews to complete the project. These are the non-labor costs captured in 1ED018 – Distribution and Engineering. SDG&E will also use internal labor to perform project management functions such as tracking the progress of pole analysis, contractor oversight, and associated reporting. These are the labor costs captured in 1ED018 – Distribution and Engineering.

SDG&E will use contract labor through its Construction Services department to perform the construction projects generated from the analysis. The construction projects will consist of procuring material, scheduling the work, removing the existing pole and conductor, and installing the new pole and conductor. These tasks are better suited to Construction Services, as they have contracts with qualified electrical workers that are trained to perform and oversee this type of work. These non-labor construction costs are captured in 1ED002 – Construction Services.

[47] *See* SDGE-15-WP at 201.

[48] *See* SDGE-15-WP at 36.

It is a common practice that more than one work group may expend effort on a given program such as PRiME. The fact that not all work associated with a particular program is not performed by a single workgroup should not be the basis for recommending a disallowance of forecasted costs.

d. Detailed Cost Estimates

ORA took issue with incremental funding for PRiME and other new capital programs because they believed SDG&E to be lacking in detailed cost estimates. ORA stated:

> If the costs cannot be determined, and defined now, then SDG&E should wait until its next GRC to request funding for its PRiME project.[49] SDG&E provided brief and general explanations in its workpapers showing lump sum numbers without any verifiable documentation to substantiate the calculations.[50]

SDG&E has provided substantial detail in its cost estimates for the Construction Services work group, including supplemental workpapers. SDG&E provided detailed references to where this information can be found, as part of the following data request response:[51]

ORA asked:

In SDG&E's response to data request ORA-SDG&E-014-TLG, it shows a forecast of $19.167 million for its Construction Services expenses. SDG&E shows expenses increased by $3.634 million from $2.885 million in 2014 to $6.519 million in 2015, and then declined by $1.155 million in 2016 to $5.364 million. SDG&E's forecast for 2019 of $19.167 million is an increase of 257.33% over 2016 adjusted recorded expenses of $5.364 million. The five-year average (2012-2016) of adjusted recorded expenses for Construction Services is $4.156 million.

Provide the documentation that explains in detail and specifically and clearly compares the differences/enhancements in the maintenance projects, programs and procedures that SDG&E utilized, performed and completed during 2012-2016 and what is being proposed in TY 2019.

[49] Ex. ORA-05 (Godfrey) at 14.

[50] Ex. ORA-05 (Godfrey) at 14.

[51] ORA-SDGE-073-TLG, Q1i, memorialized to ORA on January 18, 2018.

SDG&E responded:

SDG&E provides detailed testimony regarding its baseline and incremental Construction Services programs and activities and the reasons behind them, including current and new programs and activities to address risks as presented in its RAMP Report, from pages WHS-19 through WHS-27, and in the associated supporting workpapers. SDG&E has chosen a Base Year plus incremental forecast methodology for the Construction Services workgroup. SDG&E expects the 2016 Base Year costs to continue, and incremental costs associated with new projects and programs to be added. SDG&E has prepared Supplemental Workpapers for Construction Services. SDG&E-15-WP pages 33-34 detail the additional projects and programs that SDG&E has proposed for TY 2019 that are in addition to the Base Year 2016 activities, including RAMP risk mitigation activities (as discussed further in SDG&E-15, *see e.g.*, pages 6-16). The Supplemental Workpapers also include detailed estimates for the following projects: 1) Bridged Cutout Switch Replacement (page 35), 2) OH Switch Replacement (page 35), 3) UG Switch Replacement (page 35), and 4) PRiME (page 36). These four projects account for $12.312 million (89%) of the $13.803 million incremental request for Construction Services in TY 2019. More information regarding SDG&E's baseline and incremental RAMP activities is provided in Section II of SDG&E-15, and in the corresponding chapters of SDG&E's RAMP Report (available at *https://www.sdge.com/regulatory-filing/20016/risk-assessment-and-mitigation-phase-report-sdge-socalgas*).

SDG&E believes the detailed information that is referenced in the above data request response provides sufficient support to adopt SDG&E's forecasted expenses for Construction Services, contrary to ORA's and FEA's recommendations.

2. CUE

CUE has recommended an acceleration of the 4kV Modernization capital program.[52] Mr. Alan Colton's rebuttal testimony addresses the capital program. The methodology for the

[52] CUE (Marcus) at 71-73.

calculation of associated O&M costs used by Mr. Marcus is correct,[53] but the original O&M amount used in CUE's testimony has been corrected in errata. The correct O&M costs associated with 4kV Modernization (both Distribution and Substation) for the capital expenditure recommended by CUE is $0.774 million.[54]

B. ELECTRIC DISTRIBUTION OPERATIONS

NON-SHARED O&M - Constant 2016 ($000)			
	Base Year 2016	**Test Year 2019**	**Change**
SDG&E	**15,590**	**22,546**	**6,956**
ORA	**15,590**	**17,517**	**1,927**
FEA	**15,590**	**15,130**	**-460**

1. ORA AND FEA

ORA and FEA take issue with SDGE's Electric Distribution Operations non-labor forecast, particularly the use of a three-year linear trend as SDG&E's base estimate methodology.[55] ORA referenced a data request and response, claiming that SDG&E did not adequately address the reasons for the incremental cost associated with the three-year linear trend.[56] In that response, SDG&E points back to the direct testimony of Mr. Speer, which explains that the reason for the three-year trend was the expected need for increased exempt materials. An excerpt of the testimony referenced in the data request response[57] is provided below: [58]

> Labor and non-labor costs are based on a three-year linear trend forecast. The non-labor costs associated with Electric Distribution Operations have been trending upwards over the past three years. Non-labor costs include increasing maintenance costs for hardware, software, and exempt materials. These costs increase as the company completes more projects, and additional hardware and new equipment is installed in the

[53] CUE (Marcus) at 93.

[54] $15.488 million x 5% = $0.774 million.

[55] Ex. ORA-05 (Godfrey) at 20; Ex. FEA-1 (Smith) at 77-80.

[56] Ex. ORA-05 (Godfrey) at 20-21.

[57] ORA-SDGE-073-TLG Q1-u

[58] Ex. SDG&E-15-2R (Speer) at WHS-31-WHS-32.

field. For example, Supervisory Control and Data Acquisition (SCADA) devices, which enhance security, reliability, and reduce the risk of fires, have been installed in greater numbers to assist our operators with monitoring and operating the electric distribution system. The servers that manage and collect the data for these devices will also need upgrading and/or replacing. The exempt materials are the largest portion of non-labor in this workgroup. Exempt materials are low-value material items that are replenished as "truck stock." They consist of bulk type materials that are not individually inventoried or managed by the district warehouses. These materials include items like nuts, bolts, washers, connectors, electrical tape, and brief-relief kits, and are restocked onto service trucks as needed and are not directly charged to the O&M account or Capital Budgets on which they are used. This account represents the collector pool for all of the exempt material costs that are then allocated to the appropriate gas and electric O&M accounts and Capital Budgets as indirect charges. As construction projects increase, so too do the amount of exempt materials required. We understand that linear projections are not realistic into perpetuity. However, a three-year linear trend for this period will address the expanding needs and provide for increasing costs until a steady state is achieved.

Given the anticipated increase in both Capital and O&M programs, increased expenses in hardware, software, and exempt materials is expected. While the 2017 non-labor actual did not fall on the trend line for the estimate, utilizing the 2017 non-labor actual value of $12.5 million and a four-year linear trend plus incremental requests projects to be $16.1 million, representing a $1.9 million increase over ORA's recommendation and a $4.3 million increase over FEA's recommendation.

For these reasons SDG&E believes ORA's and FEA's recommendations should be disregarded and recommends the Commission adopt SDG&E's forecasted expenses for Electric Distribution Operations.

C. KEARNY OPERATIONS SERVICES

NON-SHARED O&M - Constant 2016 ($000)			
	Base Year 2016	**Test Year 2019**	**Change**
SDG&E	**1,350**	**2,133**	**783**
ORA	**1,350**	**1,721**	**371**

1. ORA

ORA takes issue with the test year O&M forecast for the Kearny Operations Services work group.[59] While ORA and SDG&E agree that the five-year historical average is a reasonable expectation for future labor and non-labor expenses in this work group,[60] ORA asserts that SDG&E's incremental request of $0.412 million to hire three new employees to support a new training program is unreasonable. ORA states that expenses in this work group have declined,[61]but SDG&E utilized a 5-year average as the base estimate, which includes the declining years. This is not an argument or justification to disregard the $0.412 million incremental request for the training program currently in dispute. ORA's arguments against the incremental request are summarized in two parts, the first quoted from testimony below:

> SDG&E does not require incremental funding of $0.784 million in the TY for revising, enhancing or restructuring training programs that have the same or similar training programs and related costs included in rates.[62]

This statement is factually incorrect, as the training program is new, the employees required to implement the training program are new, and none of these costs have already been captured in rates. ORA also argues:

> SDG&E has not provided any supporting documentation demonstrating recorded problems due to its current expense levels for 2012-2016 which prevented SDG&E and its management staff from providing mandated and required training for its employees in the positions of journeyman, crew lead, and working foreman.[63]

SDG&E has explained the reasons why it could not accomplish this training enhancement with the current staff and funding levels in the three data request responses below. The first data request response addresses the potential variability of the core work performed by the Kearny Operations Services group, why costs can vary from year to year, and why a 5-year average was selected as the base estimate for this work group. The second response explains the development of SDG&E's cost estimate using the 5-year average plus the incremental request of an enhanced

[59] Ex. ORA-05 (Godfrey) at 23-25.

[60] Ex. ORA-05 (Godfrey) at 23.

[61] Ex. ORA-05 (Godfrey) at 23.

[62] Ex. ORA-05 (Godfrey) at 25.

[63] Ex. ORA-05 (Godfrey) at 23.

training program. The third explains that the training program is new, requiring new hires, incremental expenses, and different job skills, and that the core business activities of Kearny Operations Services must continue to be performed. If SDG&E had implemented this new training program in 2012, as opposed to TY 2019, then we would not have proposed it as incremental; however, we would have expected the current five-year average to be about $0.412 million higher than it currently is.

ORA asked:[64]

SDG&E's response to data request ORA-SDG&E-014-TLG shows a forecast of $2.134 million for its Kearny Operations Services expenses. SDG&E's adjusted recorded expenses declined by $0.628 million between 2012 and 2016, from $1.978 million in 2012 to $1.350 million in 2016. SDG&E's adjusted recorded expenses averaged $1.721 million during the five-year period (2012-2016). SDG&E's forecast for 2019 of $2.134 million is an increase of 58% over 2016 adjusted recorded expenses of $1.350 million. SDG&E calculated its TY forecast utilizing a five-year average plus incremental costs. Provide the documentation that explains in detail the reason for the decrease in Kearny Operations Services expenses each year between 2012 and 2016 and that identifies the associated projects/programs and related expense.

SDG&E Responded:

SDG&E objects to this request on grounds that it misstates facts. As shown in workpapers SDG&E-15-WP at page 62, the expenses vary from year to year both decreasing and increasing from 2012 to 2016 of, in order and in thousands, $1978, $1959, $1603, $1717 and $1349.

Subject to and without waiving this objection, SDG&E responds as follows: As described in the testimony, the Kearny Operations Services workgroup is composed of four support groups performing different operations and maintenance functions. The testimony describes how the annual work load requirements for these different work groups are variable from year to year based on how much new equipment is being installed and must be tested as part of quality control, and how much equipment must be repaired versus replaced, and the volume of rubber goods coming in for testing on a given

[64] Ex. ORA-SDGE-075-TLG, Q1y, submitted to ORA on January 26, 2018.

month. These variables can affect the need for overtime to meet certain goals, impacting the annual costs depending on workload. As described in the testimony, this is why a five-year average was used as the base estimate, as it incorporates both high and low years to smooth out the variability in the estimate. The Kearny Operations Services testimony and workpapers describes workforce development activities that drive incremental costs for TY 2019.

ORA asked:[65]

Provide a detailed breakdown of the calculation of each individual estimate (labor and non-labor; do not provide lump sum numbers as support for the forecast) included in the calculation of the forecast of $2.134 million and the basis utilized to calculate each individual estimate for Kearny Operations Services. Note that SDG&E's workpapers included in Ex. SDG&E-15-WP, do not show any detailed calculation for the proposed TY increases.

SDG&E Responded:

As provided in the testimony (at WHS-33) and work papers (SDGE-15-WP at page 63), and as stated in question y above, "SDG&E calculated its TY forecast utilizing a five-year average plus incremental costs." The five-year average was $1,569 k in labor and $152k in nonlabor for a total of $1,721k. The Kearny Operations Services testimony and workpapers describe workforce development activities that drive incremental costs for TY 2019. As shown in the testimony and workpapers (at 63), the incremental increase is due to the need to expand the training support required for Substation Construction and Maintenance. The description and cost estimate detail below is also shown in the workpaper at page 63:

Kearny Operations Services is creating a more formalized and robust Substation Electrician training program which includes the following areas:

1. Journeyman required and elective training
2. Crew Lead elective training
3. Working Foreman required training

[65] ORA-SDGE-075-TLG, Q1z, memorialized to ORA on January 26, 2018.

4. Annual EPZ required training

The purpose of the program is to increase the knowledge base, skill level, and confidence of our union employees when performing their daily tasks. By doing so, we will create a safer work environment with more engaged employees. The program also offers career development guidance for those interested in progressing through the ranks of the union or who want to seek opportunities in management/administration. In order to accomplish the development, administration and tracking of a program of this magnitude, resources are required. We are asking for 3 FTE's calculated at $412K annually; broken down as follows: one Training & Development Supervisor ($150k), two Performance Support Analysts ($125k each), and annual training/development for the three FTE's (who are all instructors) is $12k.

The incremental calculation is

1 Supervisor = $150k,

2 Analysts ($125k each) = 2* 125k = $250k

Annual Training for instructors 4k * 3 = $12k

Total = $412k

The total for the estimate is the average ($1,721k) plus the incremental training program requirements ($412k) = $2.133

ORA asked:[66]

Provide documentation that explains in detail and demonstrates specifically why SDG&E is not able to complete its proposed TY maintenance activities and reorganize, reallocate and staff its Kearny Operations Services group with existing staff, especially since its adjusted recorded expenses have declined between 2012 and 2016. In the response identify all maintenance projects, programs, required and formalized training, and related maintenance activities that this group routinely performs that SDG&E deferred or eliminated due to declining adjusted recorded expenses between 2012 and 2016.

[66] ORA-SDGE-075-TLG, Q1aa, memorialized to ORA on January 26, 2018.

SDG&E Responded:

SDG&E objects to the premise of this question regarding the presumption that there exist "maintenance projects, programs, required and formalized training, and related maintenance activities that this group routinely performs that SDG&E deferred or eliminated due to declining adjusted recorded expenses between 2012 and 2016." SDG&E also objects to this request on grounds that it misstates facts. As shown in workpapers SDG&E-15-WP at page 62, the expenses vary from year to year both decreasing and increasing from 2012 to 2016 of, in order and in thousands, $1978, $1959, $1603, $1717 and $1349. Subject to and without waiving these objections, SDG&E responds as follows:

As described in the testimony and workpapers regarding Kearny Operations Services, workforce development activities drive incremental costs for TY 2019. The TY forecast incremental training program is intended to provide instructors and training to journeymen electricians working in the Substation Construction and Maintenance Group in an enhanced and more structured manner. Work such as the testing of live line tools and rubber gloves and the testing of transformers and other equipment remains necessary for the existing workforce, there is no work being eliminated or deferred to reallocate resources, and the job skills required of a journeyman electrician instructor are different than journeyman electrician responsible for testing equipment.

SDG&E believes the discussion and data responses provided above provide the necessary background to adopt SDG&E's forecast for Kearny Operations Services over ORA's recommendations, which are derived from arithmetic means rather than an evaluation of the necessary training programs.

D. PROJECT MANAGEMENT

NON-SHARED O&M - Constant 2016 ($000)			
	Base Year 2016	**Test Year 2019**	**Change**
SDG&E	**660**	**1,347**	**687**
ORA	**660**	**822**	**162**

1. ORA

ORA takes issue with SDG&E's request to increase funding for increased staffing and training-related costs for the area of Project Management. Specifically, ORA does not acknowledge the need for necessary training classes and increased support staffing to address both continuing attrition and increased capital project support. The need for the training classes to address staffing issues is described in the following data request response:

ORA asked:[67]

Referring to SDG&E's testimony, Ex. SDG&E-15, page WHS-37, SDG&E states on lines 19-21 that "Additions to the workforce will cause additional upward pressure on O&M at a 2% O&M to capital split. Project Management will also incur additional O&M expenses as a result of maintaining these positions." The five-year average (2012-2016) of adjusted recorded expenses for Project Management is $0.512 million. Provide a detailed breakdown of the calculation of each individual estimate (labor and non-labor); do not provide lump sum numbers as support for the forecast) included in the calculation of the forecast of $1.346 million for Project Management expenses and the basis utilized to calculate each individual estimate. Note that SDG&E's workpapers included in Ex. SDG&E-15-WP, do not show any detailed calculation for the proposed TY increases that is being requested in this question. In the response state if SDG&E deferred or eliminated maintenance programs and projects during 2012-2016 due to recent retirements in its Project Management group. If SDG&E did not defer or eliminate maintenance programs or projects during 2012-2016 due to recent retirements in its Project Management, state so, and provide documentation that explains in detail how SDG&E "sustained output", achieved its operational goals, and trained its project planners and service planners during 2012-2017 while managing retirements.

SDG&E Responded:

SDG&E utilized the base year 2016 actuals as the base calculation, plus incremental adjustments. The 2016 actuals were $660k ($589k labor, $70k non-labor). There are seven incremental adjustments that added (and subtracted) to this value.

- Fueling our future implementation costs= $110k

[67] ORA-SDGE-095-TLG, Q1f, memorialized to ORA on February 9, 2018.

- Customer project planner class. Costs are for 23 weeks of in-class training for 14 customer project planners (100% O&M), productive hours at 2% O&M, and 224 non-productive hours per planner. $11k in non-labor class costs. Total costs= $613k
- One C&T service planner. 2% O&M plus 224 non-productive hours= $8k
- Two C&T staff assistants at 2% O&M and 224 non-productive hours= $10k
- A total of 10 C&T project management assistants at 2% O&M and 224 non-productive hours= $70k
- Contract labor to address increased activity in Capital-heavy projects= $60k
- Fueling our future savings= $-184k

The total estimate for this work group equals base year plus incremental adjustments which equals: $660 + $110 + $613 + $8 + $10 + $70 + $60 - $184 = $1.347M.

The Project Management group is not involved in maintenance programs or projects, thus the staffing issues within this workpaper have not led to deferred or eliminated maintenance programs. The 'sustained output' from this work group regarding retirements is managed through a variety of means, including short-term resource reallocations, managing new project assignments based on complexity and expected schedule requirements, and process improvements such as the adoption of new project management technologies. As might be expected, these short-term management tools are useful for short periods and cannot be sustained in the long term. This request is not solely regarding retirements, but also for additional staff to address increased capital project support. Note, too, that retirements do not necessarily all occur at the start of the year and remain unfilled the entire year, and therefore a given position may be vacant for only a few months, while this may occur for several positions throughout the year.

In 2017, Project Management utilized significant contract labor to address the shortfall in staffing levels. This is evidenced in the increased non-labor spend in 2017. ORA's recommendation would fund Project Management at a lower level than its 2017 spend.

For these reasons, SDG&E believes ORA's recommendations should not be adopted, and recommends the Commission adopt SDG&E's forecasted expenses for Project Management.

2. SDCAN[68]

Related to trench inspections and gas line installations, SDCAN recommends a bill credit or direct payment to developers where SDG&E has either failed to reschedule an appointment at least 24 hours in advance for either inspection or installation services or has taken more than 24 hours for a rescheduled appointment for either inspection or installation services.[69]

At SDG&E, all trench inspection requests received prior to 2:00 p.m. are scheduled for the following day. The Inspectors are assigned to geographic areas and receive route sheets with the list of jobs, route sheets are ready by 3:00 p.m. daily for the following day. Typically, inspectors plan their route in the morning and are available for customer calls until 8:00 a.m., when they leave for their first inspection.

Inspectors are expected to be in the field by 8:00 a.m. to be able to complete all requests, but can work late if required. SDG&E does not typically give customers specific times because the nature of the work makes the on-site length very difficult to predict. Inspection time depends on trench length, width, depth, structure(s) and most importantly, customer experience. We have Inspectors assigned to the Service Order Team (one team for each District) to specifically handle the residential customers and smaller projects; this moves these customers out of the category for Developers Various conditions will necessitate rescheduling, such as unplanned availability of inspectors (*e.g.,* sick), schedule changes on the part of the developer or other developers for a given day, immediate high-priority or emergency crew needs drawing experienced personnel to those incidents. To address this issue and improve appointment scheduling, SDG&E implemented a process change during the 4th quarter of 2017, whereby dedicated contract crews are now available for all service work in new subdivisions and tie-ins for applicant installations.

[68] SDCAN's testimony and requested relief discussed here is unusual, in part because the Commission does not typically micromanage utilities' relationships with their contractors, and doing so is not the focus of the GRC proceeding. SDG&E's rebuttal testimony here provides factual information that responds to SDCAN's claims. SDG&E reserves its response to any legal issues arising from SDCAN's testimony until briefing.

[69] SDCAN (Shames) at 7; SDCAN (Conery) at 4.

SDCAN also recommends that SDG&E should be ordered to pay customers or developers where SDG&E's installation of gas or electric lines exceeds five days after the project has been released to the Construction Department by the SDG&E inspectors.[70]

Requirements related to posting of safety notices and the coordination of any required permits and/or traffic control make this proposal unrealistic. SDG&E does not have control over the developer's completion schedule. Upon completion, SDG&E must obtain any necessary permits and provide G.O. 112-F notifications to nearby customers. Until the developer is held responsible for providing the utilities with a completion date with sufficient lead times, SDG&E cannot be held to an installation date given these requirements placed upon the utilities. Notwithstanding this, the aforementioned process change implemented in the 4th quarter of 2017 to direct all service work in new subdivisions and tie-ins for applicant installations to dedicated contract crews, has significantly improved the turnaround times. As can be seen below concerning services in new subdivisions, the duration between "Duration: Project Coordinator (PC) Release to Construction Complete" (the last column) has decreased significantly since the new process was implemented:

Gas Master Service Tracking- Dec 2017 through May 2018

Month	Duration: PC Release to Job Ready (Contractor Notification)	Duration: Job Ready to contractor start	Total Duration: PC Release Contractor start	Duration: Start to Finish	Duration: PC Release to Const. Complete
Dec	5	14	19	2	21
Jan	3	8	12	2	14
Feb	4	9	13	2	15
Mar	2	2	4	1	5
Apr	2	3	5	1	6
May	2	3	4	1	5

Similarly, in respect to tie-ins for applicant installations, the time between "Duration: Project Coordinator (PC) Release to Construction Complete" (the last column) has also decreased significantly:

[70] SDCAN (Shames) at 7; SDCAN (Conery) at 4.

Tie-Ins for Applicant Installations- Dec 2017 through Mar 2018				
Month	Duration: PC Release to Job Ready (Contractor Notification)	Duration PC Release to Constr. Start	Duration: Job Ready to Constr. Start	Duration: PC Release to Constr. Complete
Dec	7	15	9	15
Jan	5	12	7	12
Feb	1	7	7	7
Mar	1	4	4	4
Apr	4	6	4	7
May	2	4	3	4

Collectively, the two issues presented above regarding appointments and installations arise as a result of a rapid increase in customer construction activity. It is SDG&E's experience that the development industry does little to provide accurate scheduling information for the work the developers are required to perform. As a result, the requests for SDG&E inspectors becomes more reactive than planned on the part of the developers. SDG&E must optimize the scheduling of the available work force, both in-house and contracted. As we work to accommodate the needs of all customers, the sudden completion of a particular customer's trench work among that of many other customers presents very volatile scheduling challenges.

SDCAN also argues that SDG&E's proposed increase in Project Management is excessive and should be reduced,[71] while simultaneously maintaining that the Department must be adequately funded and staffed to better interface with third party contractors.[72] This includes funding to allow for the completion of Project Work Order packages in three to five days.[73]

SDG&E agrees that additional funding will allow Project Management to expand resources to better service customers. The additional class to bring on board and train Customer Project Planners, as well as adding additional service planners and assistants, will provide for timelier customer interaction and quicker turnaround times. However, a three to five-day turnaround for Project Work Order packages is simply not feasible. Orders can vary from simple service connections for individual customers to large, complex distribution systems that serve

[71] SDCAN (Shames) at 7.

[72] SDCAN (Conery) at 4.

[73] SDCAN (Conery) at 4.

subdivisions, commercial centers, and high-rise towers. Those orders also include conversion of electric overhead lines to underground, and relocating existing facilities to accommodate both private party requests and governmental agencies. Considering that the development process includes meeting with customers, governmental agencies, and other utilities in planning and coordinating additions and modifications to the electric distribution system, it is not realistic to mandate completion of Project Work Order packages within three to five days.

E. ELECTRIC REGIONAL OPERATIONS

NON-SHARED O&M - Constant 2016 ($000)			
	Base Year 2016	**Test Year 2019**	**Change**
SDG&E	**35,613**	**46,689**[74]	**11,706**
ORA	**35,613**	**37,823**	**2,210**
FEA	**35,613**	**34,329**	**-1,284**

1. ORA

ORA seeks to eliminate all incremental labor funding requests for Electric Regional Operations. Regarding SDG&E's incremental request for expenses related to Overhead/Underground Switch Inspection and High-Risk Switch Replacement projects (addressed as Switch Replacement projects in the following data request response), ORA takes issue with costs for these programs being split amongst multiple workgroups. ORA states that it appears SDG&E is requesting TY funding twice for the same activities.[75]

Electric Regional Operations is the largest workgroup, by staffing, of Electric Distribution Operations, and consists of personnel in the six regional districts and their satellite operations. SDG&E clearly described the differences in the work being performed by the two workgroups and showed that these are not overlapping activities in the data request response:[76]

ORA asked:

During a conference call held on March 9 between SDG&E witness Will Speer, members of his support staff, Pete Girard and Tamera Godfrey/ORA, SDG&E agreed to

[74] Ex. SDGE-15-2R (Speer) at WHS-18.

[75] Ex. ORA-05 (Godfrey) at 31.

[76] ORA-SDGE-Oral-DR003, Q4, memorialized to ORA on March 27, 2018.

provide additional information on several topics within the SDG&E-15 Electric Distribution O&M testimony.

4. Functional differences and cost estimates for programs that have work components performed in multiple workpapers:

SDG&E Responded:

In response to the conference call held on 3/9/2018, the SDG&E Electric Distribution O&M rate case team would like to clarify the functional differences and cost estimates for programs that have work components performed in multiple workpapers. The following programs have work components, and thus costs, in multiple workgroups:

- Switch Replacement Projects
  - *Overhead Switch Replacement*
  - *Underground Switch Replacement*
- PRiME

Switch Replacement Projects:

Costs for the Overhead and Underground Switch Replacement projects have components in both 1ED002 – Construction Services and 1ED011 – Electric Regional Operations (ERO). These projects each have an inspection component, and a construction component (see SDGE-15-WP p.35).

SDG&E will use internal labor from its Electric Regional Operations department to inspect all non-FMO (Field Maintenance Only) switches. The inspections will consist of the Qualified Electrical Worker performing a visual inspection of the switch, and whenever feasible, operating the switch to ensure it operates per specification. The labor costs associated with these inspections are captured in 1ED011 – Electric Regional Operations.

Switches that fail the inspection performed by ERO will initiate a construction project to replace the switch using contract labor from Construction Services. The construction job will involve obtaining permits, procuring material, scheduling the work, the removal of the existing switch, and the installation of the new switch. These tasks are better suited to be performed by Construction Services, as they have the necessary resources to perform this type of work. Electric Regional Operations is more focused on

maintenance and compliance activities. These non-labor construction costs are captured in 1ED002 – Construction Services.

a. Labor Funding for Long-Span Inspection and Repair

ORA takes issue with SDG&E's labor funding request for the proposed Long Span Inspection and Repair program, indicating that costs related to long span inspections are embedded in historical costs. There were no long span inspection and repair costs embedded into the 2016 base year to which SDG&E is basing its forecast; accordingly, there are no costs embedded in the request. These long span projects represent an integral part of reducing wildfire risk and are an important component of SDG&E's strategy in addressing our most important RAMP risk. Given the greater level of impact from high wind events and the need to ensure proper clearances, funding for these projects is a necessity.

ORA also objects to labor funding requests for a new EDO Project Management Organization. Regarding the Project Management Organization,[77]

ORA asked:

Referring to SDG&E's testimony, Ex. SDG&E-15, page WHS-46, lines 7-9, regarding SDG&E's Electric Regional Operations group, it "proposes the establishment of a project management office. In addition to repurposing existing personnel, this organization will add a Manager, Project Manager, and Business Analyst."

Provide documentation that demonstrates specifically how SDG&E managed its project management activities during 2012-2016 and the related costs. In the response include documentation that clearly demonstrates the reason SDG&E is not able to utilize its repurposed existing personnel and funding already included in rates to support its "Fueling our Future" (FOF) efforts and "business process evaluations and improvements." Provide the adjusted recorded expenses for 2012-2017 for repurposed existing personnel.

SDG&E Responded:

Historically, SDG&E has managed ERO efforts in a more decentralized fashion. As a result, there are no costs compiled to quantify the associated costs. The establishment of a formal project management office represents a new organizational

[77] ORA-SDGE-095-TLG, Q1m, memorialized to ORA on February 9, 2018.

structure. This new initiative requires additional resources to effectively execute. The position of manager of this initiative will be filled from existing staff, this change will reduce the requested funding from three FTEs to two.

b. Request for New Permitting Group

ORA also objects to labor funding requests for a new 'permitting' group. This group would be responsible for the management of requesting, filing and managing the many jurisdictional construction permits that are required for SDG&E's work throughout the service territory. Without proper permitting, SDG&E cannot perform certain new construction or maintenance activities. Over time, many cities and counties have sought to increase the number and complexity of the types of permits required for work in their jurisdictions, such that permitting has become a major resource and schedule constraint. Proper management and acquisition and expedition of the permitting process is fundamental to successful management of the maintenance and construction operations of SDG&E. ORA's argument against the incremental request is quoted from testimony below:

> SDG&E also requests incremental labor funding for of $0.168 million for reorganization and establishment of a permitting group and a Project Management group. The proposed activities are not new and have costs incurred for these same activities already included in rates.[78]

The Project Management group represents a new organization that will focus on establishing processes and oversight to provide for more efficient and cost-effective implementation of programs and projects. Similarly, the additional resources for a new permitting group will help to address the consistently changing and expanding requirements imposed by the government entities. For example, conformance with the April 27, 2018, City of San Diego Permit Submittal Update, quoted below, will require additional SDG&E resources:

> **City of San Diego Permit Submittal Update 4/27/18**
>
> **Monument Preservation:**
>
> The City of San Diego is actively enforcing California Business and Professions Code, Section 8771 which addresses the preservation of all survey monuments. SDG&E

[78] Ex. ORA-05 (Godfrey) at 32.

is currently involved in ongoing discussions with the City to establish a preservation process which is acceptable to both parties with minimum impact on permit acquisition.

For all existing and new permit submittals to the City of San Diego the following criteria applies for Monument Preservation requirements on the DS-3179 form:

The City is responsible for Monument Preservation for all city-initiated projects and will not require SDG&E monument preservation certification.

The City will accept letters signed by the SDG&E Licensed Surveyor indicating that monuments will not be affected or that SDG&E will perpetuate the location of those monuments.

- However, no letter is necessary if the pre-construction corner record is submitted with the permit application.

The City's main concern areas are sidewalks and property corners.

SDG&E will create a list of "exempted" construction types for the City's review i.e., non-ground disturbing activity, work in the street with clearly no visible monuments, work in the street that is nowhere near street centerlines or intersections, boring under sidewalks that won't disturb monuments etc.

- The checkbox on the permit application indicating that the type of construction will not affect survey monuments does not have to be signed by the Licensed Surveyor.

SDG&E has offered to have its Licensed Surveyor review all jobs currently pending permit submittal and provide letters or Corner Records.

- Concurrently, SDG&E and the City will continue to discuss the requirements and ramifications of this process.

Permit submittals requiring review by our Licensed Surveyor should be submitted through SharePoint and the Permit Administrator will route to the Licensed Surveyor for review and returned to the Permit Administrator for submission to the City.

New requirements and changes to permitting processes such as that which is referenced above require additional resources to best serve SDG&E customers. ORA's recommendation simply does not take into account the increasing permit requirements imposed upon SDG&E in, not only new construction, but also in routine work.

c. Request for Additional Linemen

ORA also objects to SDG&E's request for additional linemen. The request for additional lineman resources is intended to address outage response times and reliability which was clarified in the following data request response:[79]

ORA asked:

Provide documentation that explains in detail why SDG&E is not able to reallocate embedded funding (costs already included in rates) from eliminated projects, maintenance costs from eliminated projects/programs, costs incurred for eliminated procedures and processes, and overtime costs to fund proposed activities and additional FTEs in TY 2019.

SDG&E Responded:

SDG&E objects to this question to the extent that it assumes eliminated projects, programs, procedures, processes and overtime costs. Subject to and without waiving this objection, SDG&E responds as follows:

The proposed additions to headcount are for activities and programs that are incremental to the baseline estimate of existing costs. Each justification is different and is evaluated based on the circumstance, but generally the head count additions are to support new projects and programs, or provide the necessary resources to meet increased performance requirements of existing activities, or to provide necessary labor where attrition has exceeded average or baseline FTE forecasts. For example, FTE counts in Electric Regional Operations were 200.6 in 2012, 194.6 in 2013 and 181.2 in 2016. Since the 2016 value of 181.2 was used for the FTE forecast, an incremental add was needed to meet historical staffing levels required to perform these functions. To start a significant new program like PRiME, additional headcount will be needed to implement and execute the program. Efficiencies have been captured and forecasts adjusted down through the Fueling our Future efficiencies initiative. Some of these requests have been funded in part through those savings.

[79] ORA-SDGE-064-TLG, Q7, memorialized to ORA on January 11, 2018.

As seen in the response, ORA's recommendation rests upon an erroneous presumption that there are somehow sufficient "eliminated projects, maintenance costs from eliminated projects/programs, costs incurred for eliminated procedures and processes, and overtime costs" to absorb the necessary incremental funds for additional linemen. That is not the case, and SDG&E restates its request for the Commission to approve funding for the requested additional linemen.

d. Customer Communication Safety Program

ORA also opposes SDG&E's request for incremental non-labor funding of $6.0 million for its Customer Communication Safety program. During the RAMP development as directed by the Commission, SDG&E identified the Customer Communication Safety program as a risk mitigant.[80] This program is a proposed mitigation activity that would reduce safety risk levels. ORA agrees that outreach and education geared toward wire-down awareness and other electric safety issues are important,[81] yet ORA rejects funding the entire program. ORA claims that SDG&E has cost included in rates for the same or similar communications projects that are ongoing. SDG&E disagrees with this assertion. While SDG&E has undertaken many activities to reduce the public safety risks associated with the electric system, such as fire risk mitigation programs, our inspection and maintenance programs, advances in system protection, design and engineering standards and work methods, SDG&E has not had an outreach program like the one proposed through the RAMP filing and included in this rate case. The Customer Communication Safety program is new and specifically designed to provide customers with the education and tools to respond to electric emergencies, and will also provide information on how to proactively avoid dangerous situations. ORA states SDG&E did not provide documentation demonstrating how it incorporated costs already in rates for its customer communications campaign into its TY forecast. The reason for this is because the program is new and not already included in rates, which is addressed in the following data request.[82]

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[80] I.16-10-015/-016, Risk Assessment and Mitigation Phase Report of [SDG&E and SoCalGas], Chapters SDG&E-3 (Employee, Contractor and Public Safety) and SDG&E-15 (Public Safety Events – Electric) (November 30, 2016), *available at https://www.sdge.com/regulatory-filing/20016/risk-assessment-and-mitigation-phase-report-sdge-socalgas*).

[81] Ex. ORA-05 (Godfrey) at 33.

[82] ORA-SDGE-075-TLG, Q1o, memorialized to ORA on January 26, 2018.

ORA asked:

Referring to SDG&E's workpapers, Ex. SDG&E-15-WP, page 146, regarding SDG&E's proposed TY activities and forecast of $6.0 million for its Public Safety Campaign included as a line item for Electric Regional Operations, SDG&E states it has "relied on low-cost and no-cost channels to communicate safety messaging." Provide all documentation that explains in detail and demonstrates the incurred historical expenses related specifically to public safety for 2012-2016 and 2017 for each line item included under the following headings as shown in Ex. SDG&E-15- WP, page 146: videos, TV spots, Billboards, Advertising, Direct Communication, Collateral, and Website (sdge.com).

SDG&E Responded:

SDG&E objects to the request for "all documentation" related to public safety messaging for 2012-2016 as vague, overbroad, and unduly burdensome. With respect to detail regarding the line items shown in SDG&E-15-WP, page 146, SDG&E spent $30K on billboards and $20K on radio public service announcements in 2016 please see document "ORA-SDGE-075-O.pdf." No other dedicated efforts to public safety campaigning was performed from 2012-2015.

ORA states that communication campaigns utilizing advertisement for television, radio and newspaper, billboards, videos, etc. have been used to educate SDG&E's customers and therefore are not new activities for SDG&E's Electric Distribution Organization. SDG&E plans to continue its current communication campaigns. However, the additional funding requested for TY 2019 is to implement a new and specific program for customer safety. For the Customer Communication Safety Program, a mass media effort will provide broader awareness and sustain customer education. While the cost estimates were based on similar historical projects, this program is new and is a dedicated effort to target communication to inform, raise awareness and educate the public.

ORA declares that SDG&E provided unsubstantiated TY estimates and lump sum numbers. However, as part of Mr. Speer's workpapers[83] and data request responses,[84] SDG&E provided detailed cost estimates (*see* below) for the program.

Public Safety Campaign				
	2017	**2018**	**2019**	
Videos				The individual estimates are based on previous videos produced and created. Costs include: concepting, scriptwriting, filming or animation, editing, and post production. Videos will be similar in style so there is consistency in look and feel.
Safety around downed power lines	$0	$0	$50,000	
Tree trimming	$0	$0	$50,000	
Electric Safety	$0	$0	$50,000	
Furnace/Carbon Monoxide Safety	$0	$0	$50,000	
Dig Alert, call 8-1-1	$0	$0	$50,000	
Dangers of Reverse Power Flow	$0	$0	$50,000	
Safety for kids	$0	$0	$50,000	
Total	$0	$0	$350,000	
TV spots				This estimate is for TV spots is based on cut downs of seven videos that will need to be cut down into :30 spots. Costs include: script revisions, voice over, editing and post production.
Cut downs from videos (5-7 spots)	$0	$0	$105,000	
Total	$0	$0	$105,000	
Billboards				
Creative/Production (5-7 boards)	$0	$0	$100,000	Seven billboards would cost roughly $14,285 to produce. This includes concepting, revisions and execution (producing final art files).
Placement (avg $50K/board x 3 boards per month)	$0	$0	$1,800,000	The $50K/board costs are based on historical costs charged by outdoor vendor. Three boards = $150K/month x 12 months = $1,800,000
Total	$0	$0	$1,900,000	
Advertising				
Planning	$0	$0	$40,000	Media and agency time to develop and monitor campaign. Includes both traditional and digital agencies.

[83] October 2017, Workpapers To Prepared Direct Testimony of William H. Speer On Behalf of San Diego Gas & Electric Company, Ex. SDG&E-15-WP (Ex. SDG&E-15-WP (Speer)) at 146.

[84] ORA-SDGE-075-TLG, Q1o, memorialized to ORA on January 26, 2018.

Public Safety Campaign				
	2017	2018	2019	
				Recommendations are based on campaign objective and target audiences.
TV media (four, six-week flights)	$0	$0	$2,000,000	$500K spend per flight. Spend at 180-200 GRPs (Gross Ratings Points) per flight. Four flights in a year = $2,000,000.
Radio production and media (four, six-week flights)	$0	$0	$800,000	$70K for development or seven spots, $30K for radio ID development. $175K spend per flight. Four flights in a year = $700,000.
Newspaper production and media includes U-T + ethnic & community pubs (four, six-week flights)	$0	$0	$600,000	$100K in print ad development & creation of multiple ads (in various languages). $125K spend per flight. Four flights in a year = $500,000.
Digital production and media (four, six-week flights)	$0	$0	$430,000	$80K in digital ad development & creation of multiple ads. $87,500 spend per flight. Four flights in a year = $350,000.
Total	$0	$0	$3,870,000	
Direct Communication				
Email/Direct Mail (2xs per year)	$0	$0	$100,000	$5K/email to 500,000 customers. 2xs = $10K. $90K to mail one time.
Total	$0	$0	$100,000	
Collateral				
Brochures/fact sheets/pocket cards	$0	$0	$30,000	Creation and development of multiple pieces by topic. Six pieces @ $5K/piece. This includes: copyrighting, design and printing. Pieces could be in multiple languages.
Total	$0	$0	$30,000	
Website (sdge.com)				
Content development	$0	$0	$75,000	Agency costs for microsite concepting, creation and development. URL used in advertising.
Paid Social Media	$0	$0	$25,000	Run paid posts four times a year, same time advertising runs. $6,250 per flight.
Total	$0	$0	$100,000	
GRAND TOTAL	$0	$0	$6,000,000	

ORA rejects the funding of $6.0 million for the Customer Communication Safety Program and opposes the level of incremental funding of $0.5 million for Distribution Energy Resources Outreach Program that is being requested under Distribution and Engineering. This is inconsistent with ORA's recommendation that SDG&E coordinate and schedule its Electric

Distribution communication campaigns with other work groups within its Electric Distribution organization.[85] The non-labor request for both campaigns would total a request of $6.5 million.

2. FEA

FEA takes issue with the test year O&M forecast for the Electric Regional Operations work group.[86] FEA disagrees with SDG&E's use of a 2016 Base Year estimate for its underlying forecast, and instead recommends a four-year average. The 2016 Base Year was chosen by SDG&E because changes in 2016 included staffing levels for Apprentice Linemen, C&O Planners and Supervisors not reflected in previous years. The 2016 Base Year costs are $35.6 million, and the four-year average used by FEA is $34.3 million, or a reduction of $1.3 million. FEA does not address or take issue with any of the $7.2 million of incremental activities that SDG&E is proposing for the 2019 test year, only the underlying base forecast. These incremental activities include RAMP-related items, and FEA does not address which activities should be reduced or removed to meet the TY 2019 estimate. The RAMP Report proposed mitigation activities that would reduce identified safety risk levels. Consistent with this RAMP analysis, SDG&E included RAMP mitigation activities into the GRC. Given the Commission's direction to complete RAMP and to assess risk reduction effectiveness, FEA would be expected to demonstrate a more need-based critique for proposed RAMP-related reductions that impact safety than an arithmetic approach. Therefore, these items should be included and SDG&E's proposed funding should be adopted.

F. SUBSTATION CONSTRUCTION AND OPERATIONS

NON-SHARED O&M - Constant 2016 ($000)			
	Base Year 2016	**Test Year 2019**	**Change**
SDG&E	**4,582**	**5,322**	**740**
ORA	**4,582**	**4,759**	**177**

[85] Ex. ORA-05 (Godfrey) at 44.

[86] Ex. FEA-1 (Smith) at 72-77.

1. ORA

ORA takes issue with the Test Year O&M forecast for the Substation Construction and Operations work group.[87] While ORA does not oppose SDG&E's estimate for non-labor, which is based on a five-year average with adjustments for incremental programs, ORA finds SDG&E's five-year average forecast for labor unjustified.[88] ORA argues that because SDG&E has shown decreasing recorded labor expenses, and is not proposing to add headcount, and also has not reported problems maintaining the distribution substation at the current expense levels, that the base year would be a better estimate.[89] SDG&E disagrees with this conclusion, as a base year estimate assumes some fundamental change has occurred that makes it different from previous years. SDG&E still has the same number of substations to maintain (a number that continues to grow) along with all the associated transformers, circuit breakers, regulators, capacitors, reactors, disconnects, fences, etc., as it did in 2012 when the maintenance costs were higher. ORA claims that the following data request response was insufficient, but SDG&E believes this response exactly describes the situation for substation construction and maintenance warranting use of SDG&E's five-year average methodology:[90]

ORA asked:

Provide the documentation that explains in detail the reason for the decrease in Substation Construction and Operations expenses between *2012 and 2016 and that identifies the associated projects/programs and* related expense. In the response provide the adjusted recorded expenses for 2017 for Substation Construction and Operations.

SDG&E responded:

The cost to maintain substations are variable, with required maintenance activities that are time-based and cyclical. Both visual inspections and preventative diagnostic testing can lead to variable amounts of follow up repair, which themselves vary in scope and magnitude. This is why a five- year average was utilized as the base estimate for this

[87] Ex. ORA-05 (Godfrey) at 38-41.

[88] Ex. ORA-05 (Godfrey) at 39.

[89] Ex. ORA-05 (Godfrey) at 39-40.

[90] ORA-SDGE-095-TLG, Q1p, memorialized to ORA on February 9, 2018.

forecast, as it includes the potential for high and low maintenance years, and provides a reasonable estimate for future years. The 2017 data is not currently available.

The costs of substation maintenance activities are variable. In the course of routine visual inspections, the amount of follow up work generated from those inspections varies. Significant preventative maintenance activities such as circuit breaker overhauls and Load Tap Changer (LTC) maintenance are dependent on time-based maintenance cycles that are not constant from year to year. SDG&E does not dispute that there is a downward trend from 2012 through 2017, but SDG&E does dispute the presumption that the trend will continue for substation construction and operation. In SDG&E's experience, substation maintenance is cyclical, and a return to a period of increased expenses is expected. SDG&E's use of a five-year average considers the recent low years as well as the previous high years, providing a reasonable estimate that accounts for the variability of the maintenance requirements. There have been no significant reductions to substation maintenance requirements; rather, there have been increased reporting requirements. General Order (GO) 174 has required additional accountability to substation inspection and maintenance programs through the addition of annual substation audits.[91]

Regarding not adding employees, SDG&E's construction and maintenance crews presently perform all the required distribution maintenance as well as capital construction. The driver for the lower expenses is not reduced head count within the Substation Construction and Maintenance workgroup, but the amount of maintenance required from year to year. This impacts the maintenance-to-capital split of the jobs to which employees charge their time. Given the variability of the maintenance required, SDG&E recommends adopting the five-year average methodology for labor and non-labor expenses, as there is no inherent driver for substation maintenance that warrants the use of a trend.

For these reasons, SDG&E believes ORA's recommendations should be disregarded and recommends the Commission adopt SDG&E's forecasted expenses for Substation Construction and Operations.

[91] California Public Utilities Commission, General Order 174, *Rules for Electric Utility Substations* (October 25, 2012).

G. TECHNOLOGY SOLUTIONS AND RELIABILITY

NON-SHARED O&M - Constant 2016 ($000)			
	Base Year 2016	**Test Year 2019**	**Change**
SDG&E	**2,544**	**3,260**	**716**
ORA	**2,544**	**2,751**	**207**

1. ORA

ORA takes issue with the funding requests for system enhancements and added functionality, as well as increased labor support, indicating that these costs represent "…routine and ongoing activities."[92] SDG&E has stated that additional funding addresses needs related to both increased scope and an expanding volume of work.[93]

ORA asked:

Referring to SDG&E's testimony, Ex. SDG&E-15, page WHS-78, lines 1-2, regarding SDG&E's Technology Solutions and Reliability workgroup, SDG&E's TY request of $3.259 million includes incremental funding for additional positions "to address resource gaps." SDG&E utilized a five-year average to calculate its TY forecast plus incremental funding. SDG&E's adjusted recorded expenses were relatively stable between 2014-2016 averaging $2.471 million over the three-year period (2014-2016). Provide documentation that explains in detail and demonstrates specifically how SDG&E addressed each of the proposed activities discussed on pages WHS-78 and WHS-79 due to its "resource gaps" (*i.e.*, deferring maintenance work, eliminating projects). If SDG&E never performed any of these activities during 2012-2016, state so, and explain why these activities are now necessary and required in the TY, and why its current expense levels and staffing (expenses averaged $2.612 million over the five-year period) is insufficient.

SDG&E Responded:

The incremental funding increase for the Technology Solutions and Reliability workpaper is intended to address the expansion and enhancement of systems and hardware, as well as to provide support for additional organizations. Enterprise System

[92] Ex. ORA-05 (Godfrey) at 60.

[93] ORA-SDGE-095-TLG, Q1s, memorialized to ORA on February 9, 2018.

Solutions (ESS) and ESS Production Support will utilize new system analysts to assist in the development and rollout of new projects and enhancements, as well as providing functional support for existing systems utilized by SDG&E field personnel. The Electric Business Process group will bring on new Project Managers to provide support for an expanded client area, including Clean Transportation, Generation, Distribution Operations, System Planning, and Distributed Energy Resources. As the Construction Planning and Design team expands the use of its systems and implements enhancements to improve functionality, additional analysts are needed to maintain the support level for Electric Regional Operations. Many activities at SDG&E have an increasing reliance on GIS technology and applications to support business requirements. New analysts for Geographic Business Solutions (GBS) and Operations Technology Integration (OTI) will provide support for continued implementation of new technology. The enhancements to ARCOS Mobile Functionality will provide managers, supervisors, and other field personnel additional tools to provide real-time information related to active callouts; this information can be used to better manage resources and more effectively respond to callouts. As part of SDG&E's continued efforts to reduce restoration times, an Outage Management System (OMS) Damage Assessment function, utilizing mobile devices, will allow damage information to be disseminated to appropriate decision-makers in near-real-time during an outage. Furthermore, as device or model changes occur, SDG&E intends to upgrade/enhance to the OMS. As the new technology and tools necessary for improved response and to meet customer expectations become available, the existing staffing and expense levels become insufficient to adopt and integrate those tools.

Additionally, ORA contends that SDG&E's proposed consolidation of Technology Solutions and Reliability into the new Asset Management group should result in efficiencies and cost savings "… from the elimination of costs associated with employees performing duplicate functions in separate work groups."[94] To be clear, the establishment of the Asset Management group does not influence the historical costs or incremental requests related to Technology Solutions and Reliability. The requests identified within the Technology Solutions and

[94] Ex. ORA-05 (Godfrey) at 61.

Reliability workpaper are related solely to needs within the defined scope of this group. The $4.610 million request for the Asset Management group specifically addresses the costs to establish the ISO 55000-certified program, and is independently identified and explained within the Asset Management workpaper.

ORA asked:[95]

Referring to SDG&E's testimony, page WHS-4, lines 16-18, SDG&E states its "new Asset Management organization will align the asset management functions and strategies across SDG&E, to avoid performing these functions in silos." SDG&E forecasts $4.610 million for Asset Management in TY 2019. SDG&E did not record any expenses for Asset Management during 2012-2016. Provide documentation that explains in detail and demonstrates how SDG&E performed asset management functions during 2012-2016 and 2017 and provide all associated costs incurred for these activities and the accounts/business units that addressed asset management functions.

SDG&E responded:

In the past, asset management had been performed in different workgroups throughout the company. Asset management strategies for distribution overhead and underground structures and equipment inspection and maintenance including poles, transformers, switches, insulators, capacitors, voltage regulators, cable and conductor, reclosers, and more, were primarily compliance driven and developed by the Compliance Management group (SDGE-15 WHS 74) with the responsibility of ensuring compliance GO 95, 128, 165 and 166. The Compliance Management group and the Technology Solutions and Reliability Group are being absorbed into the Asset Management group, which will provide systems support, metrics, and reporting (SDGE-15 WHS 75). The historical costs for the absorbed groups are provided in the workpapers. SDG&E also has distribution substation transformers, circuit breakers, and relays that are managed out of the Substation Operations and Maintenance group and the System Protection group (SDGE-15 WHS 51 and WHS 53). The analysis of circuits and equipment for proactive asset replacement strategies also is performed in Electric Regional Operations (SDGE-15 WHS 38, and Distribution Engineering WHS 56). Those three groups will not be

[95] ORA-SDGE-066-TLG, Q1i, memorialized to ORA on January 11, 2018.

absorbed by Asset Management, as they perform many other functions as described in the testimony. At the time of the GRC filing it was not known that these groups (Compliance Management and Technology Solutions and Reliability) were going to be absorbed into the Asset Management Organization, as the organization was in the process of being established. This reorganization has no impact on the incremental request, as the zero-based estimate for asset management included only the cost for the additional employees needed to establish the workgroup. The $4.610 million incremental request for the Asset Management Organization is to establish and operate an ISO 55000-certified asset management program that would exceed existing compliance requirements establishing asset management policies, strategies, and governance for all distribution assets. The certification to ISO 55000 is expected to strengthen SDG&E's distribution asset management program and its alignment with SDG&E's overall risk management strategy, as well as to facilitate SDG&E's Enterprise Risk Management development and compliance with the Commission's new risk, asset, and investment management expectations and requirements, as described in Exhibit SDG&E-02, Chapters 1-3 (*see also* Chapter 1, Appendix D, "Risk Maturity and Integration of Risk, Asset, and Investment Management at SDG&E, an Assessment Report").

Additional discussion regarding SDG&E's support for the creation of its comprehensive program for Asset Management and its relationship to SDG&E's Enterprise Risk Management organization, including the costs proposed by SDG&E and rejected by ORA, is shown in the rebuttal testimony of Mr. Kenneth J. Deremer, SDG&E-251.

For these reasons SDG&E believes ORA's recommendations should be disregarded and recommends the Commission adopt SDG&E's forecasted expenses for Technology Solutions and Reliability.

IV. EMERGENCY MANAGEMENT

NON-SHARED O&M - Constant 2016 ($000)			
	Base Year 2016	**Test Year 2019**	**Change**
SDG&E	**2,503**	**5,344**	**2,841**
ORA	**2,503**	**3,079**	**576**

A. ORA

ORA takes issue with the test year O&M forecast for the Emergency Management work group.[96] ORA states that the incremental requested funding is not related to new, never-before performed or implemented programs.

> SDG&E's proposed TY maintenance activities are the same or similar to activities that have costs included in rates and its non-labor expenses have been on a downward trend.[97]

ORA's statement is incorrect. Specifically regarding SDG&E's weather stations, ORA takes issue with SDG&E's labor costs because SDG&E's historical expenses should already include costs incurred to maintain, repair and upgrade equipment for its weather network and incremental funding in the TY for the same or similar activity is not necessary.[98] SDG&E did provide a breakdown of the various weather-related RAMP items, including the historical embedded costs. These costs are shown in the RAMP Item workpapers for Emergency Management.[99] RAMP programs such as Weather Stations and Santa Ana Wildfire Threat Index (SAWTI) in the workpapers clearly show that there are no historical costs incurred in the 2016 Base Year.

ORA also took exception because SDG&E did not provide a breakdown of the O&M costs incurred during 2012-2016 and included in its rates for its weather stations for review and comparison to its TY 2019 request.[100] However, SDG&E provided this information in the RAMP Item workpapers,[101] including the maintenance costs related to weather stations, which was given as $0.121 million in 2016, shown as continuing to be in this range, and was not included for any incremental funding. The incremental costs are to fund a program to replace all weather stations over a three-year period as they reach end-of-life. These costs were detailed as

[96] Ex. ORA-05 (Godfrey) at 63-69.

[97] Ex. ORA-05 (Godfrey) at 69.

[98] Ex. ORA-05 (Godfrey) at 64-65.

[99] Ex. SDG&E-15-WP (Speer) at 278-296.

[100] Ex. ORA-05 (Godfrey) at 64.

[101] Ex. SDG&E-15-WP (Speer) at 292.

part of a supplemental workpaper.[102] It should be noted that SDG&E's weather stations are not a long-standing equipment type in SDG&E's portfolio, those installations having begun only during this decade, increasing rapidly over a few years. This is a relatively new activity at SDG&E, and to SDG&E's knowledge it is also relatively new for other utilities in the state.

ORA also took exception to incremental labor funding requests of $100,000 each for two additional positions for training enhancements and implementation.[103] ORA believes these costs are similar to existing activities. SDG&E has stated that these positions are due to increased regulatory requirements as described in CPUC G.O. 112-F.[104] The new regulations and additional reporting were issued June 25, 2015, and ordered to be implemented by January 1, 2017. Therefore, SDG&E does not have historical costs for these specific activities during BY 2016. A more thorough explanation of the training is provided in my second revised direct testimony.[105]

ORA took a similar exception to SDG&E's non-labor forecast by stating that SDG&E did not provide documentation for review and analysis that demonstrated the historical non-labor costs included in rates[106] for several activities. SDG&E did provide historical costs for items related to weather network equipment as part of its RAMP Item workpapers. Due to the recent nature of the other projects, there are no historical non-labor costs to provide for analysis. SDG&E estimated those costs using vendor estimates and experience from similar activities.

SDG&E contests the derivation of the non-labor 2019 Test Year funding performed by ORA. SDG&E utilized a base-year plus incremental forecasting methodology. This allowed SDG&E to clearly show the incremental items and their associated costs. ORA's methodology was to divide the incremental request by four and add that to base year expenses to obtain the recommended test year funding. ORA provided no explanation why only 25% of the incremental request was recommended. ORA did not take issue with SDG&E's methodologies

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[102] Ex. SDG&E-15-WP (Speer) at 300.

[103] Ex. ORA-05 (Godfrey) at 65.

[104] California Public Utilities Commission, General Order 112-F, *State of California Rules Governing Design, Construction, Testing, Operation, and Maintenance of Gas Gathering, Transmission, and Distribution Piping Systems* (June 25, 2015).

[105] Ex. SDG&E-15-2R (Speer) at WHS-90.

[106] Ex. ORA-05 (Godfrey) at 66.

for estimating new programs. Additionally, ORA's methodology does not describe which of any programs, including RAMP-related items, should specifically be reduced or removed to meet ORA's TY 2019 recommendation. SDG&E's RAMP report proposed mitigation activities that would mitigate identified safety risk levels, and based on this analysis, SDG&E included RAMP mitigation activities into the GRC. Given the Commission's direction to complete the RAMP process and assess risk reduction measures, ORA would be expected to demonstrate a more need-based critique for proposed RAMP-related reductions that impact safety than an arithmetic approach.

For these reasons, SDG&E believes ORA's recommendations should be disregarded and recommends the Commission adopt SDG&E's forecasted expenses for Emergency Management.

B. DISTRIBUTION AND ENGINEERING

NON-SHARED O&M - Constant 2016 ($000)			
	Base Year 2016	**Test Year 2019**	**Change**
SDG&E	**2,341**	**4,297**	**1,956**
ORA	**2,341**	**2,867**	**526**

Both ORA and SBUA make recommendations regarding Distribution and Engineering. ORA makes a funding recommendation, SBUA makes a recommendation regarding the encouragement of small business to engage in energy solutions.

1. ORA

ORA takes issue with the Test Year O&M forecast for the Distribution and Engineering work group.[107] ORA does not oppose SDG&E's estimate for labor, which is based on a three-year average with adjustments. ORA does contest SDG&E's estimate of non-labor, which also uses a three-year average with adjustments.[108] SDG&E's forecasting methodology of a three-year average plus incremental adjustments allows SDG&E to clearly show those incremental items and their associated costs. ORA has not taken issue with the methodology contained within those incremental estimates, but has simply substituted its own underlying base forecast without substantiating the supposed shortcomings of SDG&E's chosen method. Thus, ORA's methodology appears to be a simple means to choose a lower value.

[107] Ex. ORA-05 (Godfrey) at 41-42.

[108] Ex. ORA-05 (Godfrey) at 42-43.

SDG&E takes issue with the development of the non-labor 2019 TY funding performed by ORA. ORA chose to divide the total incremental request by four and add that to base year funding to obtain the recommended test year funding. ORA's methodology to fund 25% of the incremental does not discuss which programs, which include RAMP-related items, should be reduced or removed to meet the TY 2019 estimate. The RAMP report proposed mitigation activities that would reduce identified safety risk levels. Consistent with this RAMP analysis, SDG&E included RAMP mitigation activities into the GRC. Given the Commission's direction to complete RAMP and to assess risk reduction effectiveness, ORA would be expected to demonstrate a more need-based critique for proposed RAMP-related reductions that impact safety than an arithmetic approach.

ORA asserts that SDG&E did not provide any documentation to demonstrate that the costs increase of $0.691 million between 2015 and 2016 for maintenance activates to back-up generators will continue at the same level, and that non-recurring expenses can be reallocated for TY projects.[109] However, these maintenance expenses for emergency backup generators are part of SDG&E's Fire Prevention Plan and will be a recurring cost, not a one-time expense, therefore funds cannot be reallocated. And, this information was provided in following data request response below:[110]

ORA asked:

Provide the documentation that explains in detail the reason for the increase in Distribution and Engineering expenses between 2015 and 2016 and that identifies the associated projects/programs and related expenses.

SDG&E Responded:

The primary cost driver for the 2016 increase was increased maintenance expenses for emergency backup generators utilized as part of SDG&E's Fire Prevention Plan. SDG&E's October 31, 2016 Fire Prevention Plan is available at https://www.sdge.com/documents/firepreventionplan[111]

[109] Ex. ORA-05 (Godfrey) at 43-44.

[110] ORA-SDG&E-073-TLG, Q1r, memorialized to ORA on January 18, 2018.

[111] This page location has since changed, the new URL is https://www.sdge.com/sites/default/files/documents/SDGE_Fire_Prevention_Plan_for_2017.pdf.

a. Distribution Energy Resources Outreach Program

ORA opposes the level of incremental funding of $0.5 million for Distribution Energy Resources Outreach Program along with the funding of $6.0 million for the Customer Communications Safety Program that is being requested under Electric Regional Operations.[112] ORA agrees that outreach and education for electric safety issues are important and the public should be informed and educated about safety risks associated with its distribution system.[113] However, ORA claims that SDG&E's historical costs include activities for the same or similar advertising programs, and rejects incremental funding for both programs. SDG&E disagrees with this assertion. While SDG&E has undertaken campaigns using advertisement to educate the customers in the past, SDG&E sees an opportunity to improve public safety creating a new program to specifically address the impact DERs may have on emergency response of first responders such as police, fire departments and others. This specific advertising campaign is new and an incremental addition to the historical costs provided in this area.

SDG&E's TY 2019 proposal includes funding for advertising including radio and print, and direct communication related to Distributed Energy Resources (DER) and the 12kV distribution system. SDG&E identified the Distributed Energy Resource Outreach Program as a risk mitigant in its RAMP Report.[114] This program is a proposed mitigation activity designed to reduce public safety risk levels and should be approved.

b. PRiME

Regarding SDG&E's incremental request for expenses related for the Pole Risk Mitigation and Engineering (PRiME), ORA appears to suggest funding this program at 25% of

[112] Ex. ORA-05 (Godfrey) at 33.

[113] Ex. ORA-05 (Godfrey) at 44.

[114] I.16-10-015/-016, Risk Assessment and Mitigation Phase Report of [SDG&E and SoCalGas], Chapter SDG&E-4 (Distributed Energy Resources – Safety and Operational Concerns) (November 30, 2016), *available at* https://www.sdge.com/regulatory-filing/20016/risk-assessment-and-mitigation-phase-report-sdge-socalgas).

SDG&E's request. However, this is inconsistent with the capital ORA testimony[115] (ORA-07 at 43) that recommends 84.8% of SDG&E's capital request for the same program. It would be inconsistent to adopt ORA's 85% funding recommendation for the capital portion of the PRiME program without also adopting an equivalent amount of the related O&M expenses. SDG&E recommends that the O&M portion for PRiME should be adopted at the originally requested level of $2.142 million. Should the Commission adopt ORA's recommended capital portion, the equivalent O&M fraction would be $1.804 million.

ORA takes issue with costs for these programs being split amongst multiple work groups, stating that it appears SDG&E is requesting TY funding twice for the same activities.[116] SDG&E clearly described the differences in the work being performed by the two work groups and showed that these are not overlapping activities in a data request response.[117] The relevant excerpts from the data request can be found below:

> **ORA asked:**
>
> During a conference call held on March 9 between SDG&E witness Will Speer, members of his support staff, Pete Girard and Tamera Godfrey/ORA, SDG&E agreed to provide additional information on several topics within the SDG&E-15 Electric Distribution O&M testimony.
>
> 4. Functional differences and cost estimates for programs that have work components performed in multiple workpapers:
>
> **SDG&E Responded:**
>
> In response to the conference call held on 3/9/2018, the SDG&E Electric Distribution O&M rate case team would like to clarify the functional differences and cost estimates for programs that have work components performed in multiple workpapers.

[115] Ex. ORA-07 (Wilson) at 43, Table 7-10. The values at line 11 for Budget Code 17254-PRiME for SDG&E for years 2019 are $40,430 the ORA recommended value is $34,269 for 2019, or 84.76% of SDG&E's request.

[116] Ex. ORA-05 (Godfrey) at 45-46.

[117] ORA-SDGE-Oral-DR003-TLG, Q4, memorialized to ORA on March 27, 2018.

PRiME

Costs for the PRiME project have components in both 1ED002 – Construction Services and 1ED018 – Distribution and Engineering. This project has an engineering analysis component[118] and a construction component.[119]

SDG&E will use contract labor to perform the pole-loading analysis and design work associated with pole replacements and rearrangements. An engineering firm will be chosen to perform the detailed loading analysis of the poles including PLS-CADD modeling and as-builts where required. When the loading analysis demonstrates that a pole is loaded beyond our specifications, a contract design firm will create a design package for the pole replacement. The design package will include the necessary permits and construction drawings required for construction crews to complete the project. These are the non-labor costs captured in 1ED018 – Distribution and Engineering. SDG&E will also use internal labor to perform project management functions such as tracking the progress of pole analysis, contractor oversight, and associated reporting. These are the labor costs captured in 1ED018 – Distribution and Engineering.

SDG&E will use contract labor through its Construction Services department to perform the construction projects generated from the analysis. The construction projects will consist of procuring material, scheduling the work, removing the existing pole and conductor, and installing the new pole and conductor. These tasks are better suited to Construction Services, as they have contracts with qualified electrical workers that are trained to perform and oversee this type of work. These non-labor construction costs are captured in 1ED002 – Construction Services.

ORA also took issue with incremental funding for PRiME because they believed SDG&E to be lacking in detailed cost estimates.[120] SDG&E has provided substantial detail in its cost

[118] *See* SDGE-15-WP at 201.

[119] *See* SDGE-15-WP at 36.

[120] Ex. ORA-05 (Godfrey) at 46.

estimates for the Distribution Engineering work group, including supplemental workpapers.[121] This concern was addressed as part of the following data request responses:

ORA asked:[122]

SDG&E's response to data request ORA-SDG&E-014-TLG, it shows a forecast of $4.297 million for its Distribution and Engineering expenses. SDG&E's adjusted recorded expenses were relatively flat between 2012 and 2015 averaging $1.635 million during the four- year period (2012-2015). SDG&E shows adjusted recorded expenses increased between 2015 and 2016 by $0.705 million, from $1.636 million to $2.341 million. SDG&E's forecast for 2019 of $4.297 million is an increase of 84% over 2016 adjusted recorded expenses of $2.341 million.

Provide the documentation that explains in detail and specifically and clearly compares the differences/enhancements in the maintenance projects, programs and procedures that SDG&E utilized, performed and completed during 2012-2016 and what is being proposed in TY 2019.

SDG&E responded:

SDG&E-15, page WHS-56 – WHS-58 describes in detail the Distribution and Engineering maintenance projects, programs and procedures that SDG&E utilized, performed and completed during 2012-2016. The new proposed maintenance programs and activities are discussed as cost drivers in SDG&E-15 pages WHS-58 – WHS-60. More information regarding SDG&E's baseline and incremental RAMP activities is provided in Section II of SDG&E-15, and in the corresponding chapters of SDG&E's RAMP Report (available at https://www.sdge.com/regulatory-filing/20016/risk-assessment-and-mitigation-phase-report-sdge-socalgas).

[121] Ex. SDG&E-15-WP at 186-203.

[122] ORA-SDGE-073-TLG, Q1q, memorialized to ORA on January 18, 2018.

ORA asked:[123]

Provide a detailed breakdown of the calculation of each individual estimate (labor and non-labor) included in the calculation of the forecast of $4.297 million and the basis utilized to calculate each individual estimate for Distribution and Engineering.

Note that SDG&E's workpapers included in Ex. SDG&E-15-WP, pages 200-202 show lump sum numbers with brief and general explanations for an increase of 84%. These pages lack the detailed breakdown of the calculation of each individual estimate included in the forecast.

SDG&E responded:

As can be seen at workpaper page 188, the forecast is derived from a 3-year average and not entirely from individual estimates. SDG&E-15-WP pages 200-202 detail the additional projects and programs that SDG&E has proposed for TY 2019 that are in addition to the 3-year average forecast. The Supplemental Workpapers also include detailed estimates for PRiME (page 201) and the Increased Outreach Program (page 202).

The detailed estimate for the PRiME program (page 201) shows the non-labor engineering support for analysis and assessment will cost $200 per pole, as-built true up construction work on 10% of all poles at $250 per pole and PLS CADD model of 5% of all poles at $350 per pole. For Contractor Staffing, SDG&E lists by line item the positions needed and cost, with 27% O&M. For Internal adds, SDG&E lists detail for three FTEs and cost at 10% O&M.

The detailed estimate for the Increased Outreach Program (page 202) shows each line item for the program and frequency of the item. For example, Radio Ads will be done quarterly for a total cost of $20,000 or $5,000 per quarter.

To conclude, SDG&E believes ORA's suggested methodology to fund only 25% of non-labor expenses is unreasonable and does not provide detail on how to fund each individual program being requested. In addition, recurring expenses such as maintenance on generators cannot be reallocated, as these costs are included in base year and will be a continued expense.

[123] ORA-SDGE-073-TLG, Q1s, memorialized to ORA on January 18, 2018.

For new projects, such as the DER outreach program the incremental funding is an addition to base year since this specific type of campaign has not been done historically. While SDG&E agrees with ORA that both the DER Outreach Program and the Customer Communications Safety Program are important and there is value in coordinating efforts, we find that ORA's recommended funding amount would not be sufficient to adequately launch either of the campaigns, let alone both. Regarding the PRiME program we find inconsistent recommendations between the ORA capital and ORA O&M. SDG&E has clearly explained the divide of work between groups for the PRiME program and has detailed the cost estimates for review. The non-labor incremental request has been justified through testimony, workpapers and data requests, and is necessary to complete proposed activities.

2. SBUA

SBUA recommends that SDG&E encourage small business customers to engage in energy solutions. SDG&E agrees with the importance of engaging every customer in energy solutions. SDG&E has established a budget to assist all customers with interconnecting to the electric distribution grid safely and reliably. For energy solutions, SDG&E has personnel assigned to teams who work with associations, chambers and other business groups to publicize our messaging on distributed resources such as solar power. SBUA asserts that no small commercial customers have participated in SDG&E's "Fast Track" process to install private solar. Because the Fast Track process is designed for systems under 30 kW and not requiring any additional equipment such as an additional electrical disconnect or metering, no small commercial customer has yet qualified for the Fast Track process. Additionally, SBUA recommends SDG&E offer the equivalent of renewable meter adaptors for small commercial customers. However, the Renewable Meter Adaptor is only approved for residential use on electric service panels below 200 amps and generation systems less than 12kW. Due to loading levels of small commercial customer we are unable to offer an equivalent renewable meter adaptor. Regrettably, small commercial customers do not meet the qualification criteria for these specific programs. SDG&E has a trained staff that is available during the workday to assist and answer questions from small business owners regarding engagement in energy solutions.

SBUA recommends that SDG&E use 25% of the total forecast of $4.299 million for Electric Distribution and Engineering for outreach to small businesses. The $4.299 million funding request is based on a three-year average of recorded costs plus incremental funding for

proposed activates. These costs include work historically done by the group plus incremental funding for projects and programs associated with SDG&E proposed RAMP activities for training $0.140 million, Distributed Energy Resources Outreach Program (communication campaign) $0.500 million, Pole Risk Mitigation and Engineering (PRIME) $2.175 million, and additional positions $0.090 million. This forecast also includes efficiency savings from the Fueling our Future initiative of $0.485 million. The funding request has been justified through detailed cost estimates described in testimony, workpapers, and data requests and is necessary to complete proposed activities. It is infeasible to reallocate 25% of this request as SBUA has requested without yet additional incremental funding.

SBUA recommends that SDG&E conduct studies on the challenges faced by small commercial customers in adopting energy solutions. SBUA also recommends SDG&E evaluate small commercial customers in its customer service tracking. SDG&E has provided SBUA with information regarding SDG&E's efforts to specifically target small businesses in DR SBUA-SEU-DR-003 Q11 and Q12:

SBUA asked:[124]

Please provide any studies, reports or other data that show SDG&E's outreach, marketing, and education efforts that are uniquely and specifically targeted to small businesses.

SDG&E responded:

For the purpose of this response, SDG&E defines its universe of customers by electric demand: small (<20kW), medium (20-199kW), and large (>200kW).

SDG&E has performed a number of surveys funded through various CPUC proceedings that provide insights on messaging and programs that may benefit small business customers. As referenced in response to SBUA-SEU-DR-003, Question 17e, SDG&E conducted research with small business customers in support of the time of use (TOU) pricing rollout to determine customer awareness and attitudes regarding their company's transition to a TOU rate plan. This full report is included in the attachment to the Question 17e response, see "Small Business Pricing Rollout 2016 Report". In addition, SDG&E conducted a market assessment of the business sector to develop

[124] SBUA-SEU-003, Q11, memorialized to SBUA on May 4, 2018.

proposals in its Energy Efficiency Business Plan, which was filed in A.17-01-013. A link to the Energy Efficiency Business Plan is also provided in response to SBUA-SEU-DR-003, Question 17.

Other representative survey examples are shown in the SBUA-SEU-DR-03 Q11 Attachment.

SBUA asked:[125]

Does SDG&E engage any outside advertising or marketing firms to assist in its outreach, marketing, or education efforts that are uniquely and specifically targeted to small businesses?"

SDG&E responded:

SDG&E has engaged outside firms to assist in its outreach, marketing and education efforts targeted to small businesses. For example, in December 2017, SDG&E began a small business outreach campaign executed by a third-party vendor funded through a non-GRC CPUC proceeding. The project involved a door-to-door and outbound phone hybrid approach to outreach. The vendor educated our small business customers on their new TOU pricing plan, how it affects them, and how they can save on their utility bill moving forward with conservation, shifting the timing of when they use energy, and the Business Energy Solutions program. The vendor successfully educated 1,490 small business customers and of those, generated over 490 leads to the Business Energy Solutions program.

SDG&E performed surveys and targeted efforts for small business. SDG&E also provides customer support for the energy management challenges they face. Customers with greater incidence of energy management issues may be assigned Account Executive Support. This assignment includes some small business customers with complex needs. The assignment is based on several different factors, business size is but one of several considerations. In addition, our Commercial Energy Specialists are available to help small business one-on-one with specific issues they may face. Considering the resources presently available to the small

[125] SBUA-SEU-003, Q12, memorialized to SBUA on May 4, 2018.

business community, SBUA recommendations to require additional specific studies and customer service tracking would be redundant and burdensome.

For these reasons SDG&E believes ORA's and SBUA's recommendations should be disregarded and recommends the Commission adopt SDG&E's forecasted expenses for Distribution and Engineering.

C. STRATEGIC PLANNING AND BUSINESS OPTIMIZATION

NON-SHARED O&M - Constant 2016 ($000)			
	Base Year 2016	**Test Year 2019**	**Change**
SDG&E	**1,630**	**2,390**	**760**
ORA	**1,630**	**1,630**	**0**

1. ORA

ORA takes issue with the Test Year O&M forecast for the Strategic Planning and Business Optimization work group.[126] ORA disagrees with the use of a five-year historical average for future labor and non-labor expenses in this work group, due to declining expenses in recent years. However, SDG&E believes the five-year average estimating methodology is reasonable, as discussed in the following data request response:[127]

ORA asked:

SDG&E's response to data request ORA-SDG&E-014-TLG, shows a forecast of $2.390 million for its Strategic Planning and Business Optimization expenses. SDG&E's adjusted recorded expenses increased by $1.986 million between 2012 and 2014 from $1.508 million in 2012 to $3.494 million in 2014. SDG&E's adjusted recorded expenses decreased by $1.864 million between 2014 and 2016 from $3.494 million to $1.630 million in 2016. SDG&E's forecast for 2019 of $2.390 million is an increase of 46.63% over 2016 adjusted recorded expenses of $1.630 million. SDG&E utilized a five-year average to calculate its TY forecast.

Provide documentation that explains in detail the reason for the decreases and increases in Strategic Planning and Business Optimization expenses between 2012 and 2016 and that identifies the associated projects/programs and related expense. In the response provide the adjusted recorded expenses for 2017 for Strategic Planning and Business Optimization.

SDG&E Responded:

Variations in expenses from year-to-year are to be expected in the normal course of business and can be attributed to a number of factors, including but not limited to

[126] Ex. ORA-05 (Godfrey) at 70.

[127] ORA-SDGE-095-TLG, Q1u, memorialized to ORA on February 9, 2018.

changes in activity levels, weather and emergency event response, changes in organization such as the combining or separation of activities, new regulatory requirements, customer needs and the like. The range of variation in a given activity is often not significant, and not all of these causes are identifiable or tracked in an accounting fashion. For these reasons, a number of forecasts utilized an averaging technique to account for those historical variations both high and low. Similarly, as the forecast estimate is also often an average, it is to be expected that actual future expenses will vary around that average.

The main driver the for increases and decreases in non-labor between 2012 through 2016 was due to consulting fees, with the purpose of improving efficiencies in business process. The strategic planning and business optimization group contributes to the development of the company's strategic planning efforts, including supporting business improvements and efficiency initiatives. Supporting these efforts, requires the group to rely on consultants and external studies which would require non-labor funding for such activities. Relying on historical average spend in this area is reasonable for forecasting future costs, which will reflect variances in spending activity in any given year. 2017 costs are not yet available.

SDG&E contests ORA's test year O&M forecast for Strategic Planning and Business Optimization. SDG&E utilized a five-year average forecasting methodology to account for the historical variations, both high and low. In contrast, ORA's recommendation to use a base year methodology does not account for historical variances in spending and costs. SDG&E does not request additional incremental funding beyond a five-year average and finds this methodology to be the most appropriate to account for variances in costs experienced from year to year. ORA has not argued the merits of the activities in Strategic Planning and Business Optimization, but has simply substituted its own forecast, appearing to be a simple means to choose a lower value.

For these reasons, SDG&E believes ORA's recommendations should be disregarded and recommends the Commission adopt SDG&E's forecasted expenses for Strategic Planning and Business Optimization.

D. REGIONAL PUBLIC AFFAIRS

NON-SHARED O&M - Constant 2016 ($000)			
	Base Year 2016	**Test Year 2019**	**Change**
SDG&E	**1,630**	**2,390**	**760**
SDCAN	**1,630**	**683**	**-947**

1. SDCAN

Only SDCAN challenged SDG&E's forecast for Regional Public Affairs, taking issue with the Test Year 2019 forecast for the Regional Public Affairs work group.[128] SDCAN made this same argument in the TY 2016 GRC, which SDG&E has addressed and refuted. A TY 2019 GRC SDCAN data request asked the following, which appears to be copied from a similar data request from the TY 2016 GRC without updating the time period dates:[129]

SDCAN asked:

Please provide the annual budgets for all expenses relating to the operations of the SDG&E Regional Public Affairs division during the January 2010 through December 2014 time period. These expenses should include the monies available for any consulting or services provided by other Sempra affiliates, the parent company or any third-party vendors. To the extent that this information is not included in testimony or workpapers, please provide this information.

SDG&E Responded:

Regional Public Affairs expenses for the time period from January 2015 through December 2016 are available on page 228 of SDG&E's workpapers, exhibit SDGE-15-WP. Expenses for 2017 are not available at this time.

[128] SDCAN (Shames) at 46-49.

[129] SDCAN-SDGE-01, Q37, memorialized to SDCAN on January 26, 2018.

The referenced tables are shown here:[130]

In 2016$ (000) Incurred Costs								
	Adjusted-Recorded					Adjusted-Forecast		
Years	2012	2013	2014	2015	2016	2017	2018	2019
Labor	673	1,000	1,085	968	974	850	740	740
Non-Labor	553	847	998	1,310	990	1,063	1,098	1,063
NSE	0	0	0	0	0	0	0	0
Total	**1,226**	**1,847**	**2,082**	**2,278**	**1,965**	**1,913**	**1,838**	**1,803**
FTE	5.7	8.3	9.2	8.0	8.5	7.0	5.9	5.9

As can be seen, SDG&E responded to the data request above with the information corresponding to the period relevant to this 2019 GRC. During the 2016 GRC proceeding, SDCAN asked the same question as part of a data request to SDG&E in 2015.[131]

SDCAN asked:

Please provide the annual budgets for all expenses relating to the operations of the SDG&E Regional Public Affairs division during the January 2010 through December 2014 time period. These expenses should include the monies available for any consulting or services provided by other Sempra affiliates, the parent company or any third-party vendors. To the extent that this information is not included in testimony or workpapers, please provide this information.

SDG&E Responded:

SDG&E does not budget to the granularity for specific expenses. No additional funding is provided by other Sempra affiliates, the parent company or any third-party vendors. 2010 budget was provided in the 2012 GRC.

SDGE Regional Public Affairs	***2010***	***2011***	***2012***	***2013***	***2014***
Total Budget	***$1,366,953***	***$ 747,073***	***$ 611,130***	***$ 686,952***	***$ 950,073***

SDCAN uses the discrepancy between the 2018 and 2015 numbers as the basis for its recommended funding of the workgroup. SDCAN states that due to this conflicting response,

[130] Ex. SDG&E-15-WP (Speer) at 228.

[131] SDCAN-SDGE-01, Q37, memorialized to SDCAN on January 26, 2018.

SDG&E should receive authorization for 2013 expenditures of $686,952.[132] This figure conflicts with SDCAN's recommended funding earlier in the testimony of $683,000,[133] but more importantly, the basis for this argument was refuted in SDG&E's rebuttal testimony during the 2016 GRC. The numbers provided during the 2015 data request included only one of three cost centers associated with Regional Public Affairs, which was compared in the 2016 rebuttal. The reason for the discrepancy is described below, and based on that result, from the 2016 GRC, this time SDG&E included the three cost centers in its response to SDCAN's data request. SDG&E's rebuttal stated:[134]

> SDCAN's recommendation of $683,000 for funding Regional Public Affairs (RPA) instead of SDG&E's requested amount of $1,687,000 inaccurately reflects the historical context for the department's operations. SDG&E's RPA request supported in my direct testimony is based on historical costs from three SDG&E cost centers: RPA, Regional Vice President (RVP) and Economic Development. In responding to SDCAN's referenced data request, SDG&E provided only the RPA cost center budget as requested. SDCAN inaccurately compares this budget information to SDG&E's request for funding. Historical costs for all three cost centers are shown in the chart below and in workpapers accompanying our original testimony:

Summary of Results:

	In 2013$ (000) Incurred Costs							
	Adjusted-Recorded					Adjusted-Forecast		
Years	2009	2010	2011	2012	2013	2014	2015	2016
Labor	824	824	753	629	935	935	935	935
Non-Labor	282	591	465	446	752	752	752	752
NSE	0	0	0	0	0	0	0	0
Total	**1,107**	**1,415**	**1,218**	**1,076**	**1,687**	**1,687**	**1,687**	**1,687**
FTE	8.1	7.6	6.8	5.7	8.4	8.4	8.4	8.4

[132] SDCAN (Shames) at 49.

[133] SDCAN (Shames) at 46.

[134] A.14-11-003/-004 (cons.), SDG&E Rebuttal Testimony of Jonathan T. Woldemariam, Electric Distribution O&M, Ex. SDG&E-210 at JW-35-JW-37 (citations omitted) (June 2015).

As indicated above, historical spending includes three cost centers RPA, Regional Vice President (RVP) and Economic Development. The forecast was developed from historical spending at $1,687,000 which was also the actual spend in 2013.

The following is additional information on the RVP and Economic Development cost centers: The RVP (supported by an executive assistant) oversees SDG&E's External Affairs operations, including Regional Public Affairs. The RVP provides oversight and greater focus for the activities performed by these groups that are targeted to Company, service territory, and community specific needs and issues.

Economic Development programs benefitting our community to recruit, grow, retain businesses and jobs with support on education and access to utility programs through local and regional EDC's.

The following addresses the incorrect assertion by SDCAN whereby the department exists "to engage in activities in support of lobbying and corporate image enhancement." In reality, RPA educates officials at the county and city levels about SDG&E issues that may have an impact on its customers. RPA further serves as the point of contact in the communities that SDG&E serves, educating stakeholders about SDG&E activities, programs and services, resolving customer complaints and working with under-represented communities. Furthermore, RPA works with local government regarding existing or proposed operations. This is RPA's primary function. We are providing an example, not indicative of all, of issues RPA works on. These activities can best be described as part of our day-to-day business where we have facilities and serve our customers.

- Franchise compliance with the City of San Diego and City of Chula Vista
- Energy Efficiency program outreach to cities and customers
- Distribution Underground Conversions – System-wide 20 A&C
- Street Light Process Improvement
- Wood to Steel Projects
- Pipeline Safety
- Substation relocation and enhancement projects
- Electric Vehicles
- Emergency planning and response

- Outreach activities for major construction projects, including providing information to community groups, service organizations and business groups
- Summer and Winter Preparedness
- Vegetation Management

RPA serves a critical role as a "liaison" between the utility and regional stakeholders, including elected officials, municipal staff, community organizations, and the general public. RPA staff maintains ongoing communications with these stakeholders, and are usually the first point of contact when stakeholders have questions or concerns on issues related to SDG&E.

SDG&E, therefore, rejects SDCAN's position and requests that its requested funding of $1,687,000 be approved as submitted.

SDCAN has not raised any new issues or arguments that were not refuted in previous GRC proceedings. The Commission did not adopt SDCAN's proposed funding levels for Regional Public Affairs in 2016, and should not approve SDCAN's proposed funding levels now.

E. VEGETATION MANAGEMENT (Tree Trimming)

NON-SHARED O&M - Constant 2016 ($000)			
	Base Year 2016	**Test Year 2019**	**Change**
SDG&E	**23,005**	**22,674**	**-331**
FEA	**23,005**	**22,620**	**-385**

1. FEA

FEA takes issue with the Test Year O&M forecast for Tree Trimming.[135] SDG&E recognizes FEA's methodology incorporating the 2017 actual expenses into its forecast. SDG&E had prepared its forecasts using the five years of historical data, 2012-2016, customarily available according to the Rate Case Plan in development of its detailed forecast estimates, and continues to support adoption of those forecasts for TY 2019. Within those historical years, SDG&E noted that for the Vegetation Tree Trim activity, 2012 represented an unusually high cost year, and for that reason, SDG&E used a four-year average omitting 2012.

[135] Ex. FEA-1 (Smith) at 89-92.

2. ORA AND FEA – Two-way balancing account for Tree Trimming

ORA and FEA take issue with SDG&E's request for two-way balancing treatment and instead propose to continue the one-way balancing account of SDG&E's tree trimming workgroup. SDG&E would like to clarify that the request for the two-way balancing account is to ensure flexibility and sufficient funding for work resulting from 2016 and 2017 winter storm events and tree mortality associated with the ongoing effects of drought and beetle infestation. Trees that have been overly stressed and now have structural weaknesses will require specialized measures to mitigate. SDG&E has begun to utilize specialized equipment such as cranes, extended lifts, construction loaders and other equipment types to help manage the work in a safe manner. Utility vegetation management involves some of the most hazardous work and requires a very high skill level when working in proximity to powerlines. Dead and structurally compromised trees greatly increase this danger. This has resulted in a more focused approach to support contractor training, increase field observations, and auditing. Over the last several years, SDG&E contractors have experienced a greater need for additional tree crews to perform the work. SDG&E's vegetation management team will be requesting contractors to add additional safety mitigation this year in the form of dedicated fire safety personnel when working in the highest fire threat zones, and additional fire equipment such as water tenders for hazard jobs. Lastly, SDG&E has continued to explore the use of even more advanced technology and use of Light Detection and Ranging (LiDAR) to help develop tools for inspections, patrols, and quality assurance. The added measures mentioned above will require additional funding, the extent of which is not precisely known at this time. The application of a two-way balancing account will both permit the adoption of these measures and serve to protect customers: SDG&E can employ the newer tools and techniques to improve safety and wildfire risk, and any unspent funds are returned to ratepayers.

For these reasons, SDG&E believes FEA's and ORA's recommendations should be disregarded and recommends the Commission adopt SDG&E's proposal for two-way balancing treatment of Tree Trimming Vegetation Management.

F. VEGETATION MANAGEMENT (Pole Brushing)

NON-SHARED O&M - Constant 2016 ($000)			
	Base Year 2016	**Test Year 2019**	**Change**
SDG&E	**3,450**	**3,741**	**291**

FEA	**3,450**	**3,368**	**-82**

1. FEA

FEA takes issue with the Test Year O&M forecast for Pole Brushing using the same argument for Pole Brushing as for Tree Trimming.[136] They disagree with SDG&E's use of a five-year average for pole brushing and instead propose a four-year average that includes the 2017 data. Specifically, FEA states: "As can be seen, historical costs were higher in 2012 and 2013 and have remained fairly constant in a four-year period from 2014-2017."[137]

FEA disregarded two years of historical costs, 2012 and 2013, because they are the highest and second highest expense years, respectively. Other than this visual observation, FEA did not provide any support that these two years could be considered outliers. SDG&E tested those values, finding that only 2012 was a true outlier. FEA's recommendation is therefore based on a misrepresentation of the historical data and should not be adopted.

G. RELIABILITY

1. SDCAN

SDCAN's testimony claims that SDG&E's reliability data is unreliable and misreported[138] and requests that $5 million of SDG&E's O&M or capital revenues be redirected to fund an independent analysis.[139] SDG&E refutes the claim of unreliable data and disagrees with SDCAN's proposal. SDG&E's response is documented in "Reply to Protest of Advice Letter 3217-E: Distribution PBR Reliability Performance Incentives for 2017" filed with the CPUC on May 29, 2018 and copied below.[140]

After careful review of 13 random outages selected by SDCAN in their expert analysis of SDG&E's outage data provided as document "Appendix D," SDG&E asserts that its data is accurate and a truthful representation of the reliability impacts for the outage events listed. The outages are also in accordance with SDG&E's internal practice and with the reporting

[136] Ex. FEA-1 (Smith) at 84-87.

[137] Ex. FEA-1 (Smith) at 85.

[138] SDCAN (Shames) at 23-25.

[139] SDCAN (Shames) at 33.

[140] Reply to Protest of Advice Letter 3217-E: Distribution PBR Reliability Performance Incentives for 2017.

requirements governed by the CPUC in D.16-01-008. Additionally, SDG&E has several levels of internal controls to ensure records accurately represent electric outages, which are discussed below.

SDG&E has a rigorous quality control process in its outage recording. SDG&E has verified through benchmarking that its data integrity process exceeds the standard set by most utilities within North America. The following steps were in-place during the 2015-2016 timeframe:

- Outages are generated in the control center and documented by a combination of system operators and automation from customer calls/automated metering outage data.
- Records of outages documented are compiled into daily outage reports.
- Two separate analysts working in the Electric Reliability team (who report to a different Director than the system operators), review the daily outage reports and validate customer count based on documented device operation through the Customer Information System. They also independently validate there are no timestamp discrepancies.
- After verification of the record from both analysts, the record is entered into SDG&E's reporting database.
- Following an end of year reliability team review, an internal audit takes place from the business controls department. The business controls department reports through separate leadership within Sempra (SDG&E's parent company). Auditors review SDG&E's business processes and take a random sample of detailed records for independent testing. An internal audit report is submitted based on the auditor's findings. This report is submitted to the CPUC with the annual PBR advice letter.

SDCAN performed their analysis using the results of a prior GRC data request, which include SDG&E's internal weekly reliability performance reports. These reports are intended as a performance metrics summarizing each operating unit's contribution to the weekly reliability impact. The outages represented in the report are not considered final record, as they have not gone through the complete quality control process required to meet that standard.

Additionally, SDG&E has identified that SDCAN may have had errors in their analysis. SDG&E reviewed each media report and verified that SDG&E's audited outage record matches the outage details reported in each of the media articles. SDCAN appears to make the following mistakes in their analysis, which led to their inability to accurately depict the outage records:

- Not all outages are represented in local media
- Media reports often aggregate several individual outage records to create customer impact totals.
- A single outage event may sometimes be split into separate outage records because each designed feeding circuit impacted by the single outage event must be documented separately. These records may have overlapping durations, making it difficult to determine the total duration of the outage event documented by the media.
- Weekly performance reports only document the results of unplanned outages. Planned outages may still end up in media reports, explaining some documentation perceived to be missing.
- Media reports may document outages based on the days they impact, not the days they originate in. SDG&E records are documented in the day they originate. For instance, if an outage starts at 10pm on January 1st, but is reported by the media on January 2nd because it is ongoing, SDG&E record will record the event on January 1st, making it difficult to compare media reports to the SDG&E record.
- Outage locations are not documented in detail in the weekly report. To accurately validate each media record, SDG&E's Geographic Information System must be used to match circuit and affected device locations to the specific communities reported by the media.

SDG&E refutes SDCAN's assertions, and recommends the Commission similarly disregard SDCAN's recommendation in its entirety.

H. PERFORMANCE BASED RATEMAKING

1. CUE

SDG&E has made no proposal for the continuance of Electric Reliability Performance rewards or penalties in this GRC from Performance Based Ratemaking (PBR). CUE proposes

the continuance of a PBR mechanism resulting from prior GRCs and negotiations with CUE between GRC decisions. SDG&E opposes CUE's recommendation as follows:

My direct testimony described and supported SDG&E's decision not to propose an electric reliability performance-based ratemaking mechanism (PBR) in the TY 2019 GRC, explaining that the PBR is outdated and neither required nor warranted under Commission rules or policy. ORA's Report on Electric Distribution Expenses took no issue with this testimony. To the contrary, ORA's Report on Electric Distribution Capital argued against funding SDG&E's reliability-related projects, claiming that "SDG&E has a very reliable electric system and it has not demonstrated a need for increased reliability."[141] Similarly, no party except for CUE took issue with SDG&E's decision not to propose a PBR.

CUE mistakenly characterizes SDG&E's decision not to propose an electric reliability PBR mechanism in this proceeding as an "ask … to drop the existing PBR mechanisms completely."[142] This is inaccurate, because SDG&E is under no Commission requirement to propose a PBR. It is true that SDG&E has, in the past, proposed PBR incentive mechanisms as part of its GRC applications. However, these proposals were made voluntarily, and they were made with the understanding that the PBR would fairly provide a balancing of incentives for the improvement of electric distribution reliability. There is no CPUC requirement for electric utilities to propose PBRs, and they are unnecessary to providing safe and reliable service, as the Commission stated in SDG&E's TY 2008 decision:

> The Commission has the authority and discretion to adopt incentive mechanisms when it finds that by providing specific, measurable targets, the utility can intentionally improve performance and thereby increase customer satisfaction or employee safety. (Pub. Util. Code § 701.) We are not required to approve incentive mechanisms because properly determined rates are sufficient to provide safe and reliable service.[143]

The Commission noted the importance that a PBR must strike a balance between goals, so that the goals provide workable incentives and are not unreachable:

> Earning an incentive requires specific improvements or changes by SDG&E and SoCalGas to try and meet the target. If SDG&E or SoCalGas

[141] Ex. ORA-06 (Roberts) at 28.

[142] CUE (Marcus) at 96.

[143] Decision (D.) 08-07-046 at 49 (emphasis added).

> so choose, they may decline any of the discretionary incentives adopted herein if they are unprepared to undertake those changes likely to achieve the targeted improvement in exchange for the offered reward (or penalty).[144]

CUE argues that SDG&E's strong reliability performance over SCE and PG&E is irrelevant to imposing a PBR mechanism over its reliability performance, while at the same time recognizing that SDG&E's superior performance is "probably true."[145] As noted in my direct testimony, neither SCE nor PG&E have a PBR mechanism governing their reliability performance, and it would be prejudicial to place a mechanism of this type upon SDG&E given its continued strong track record of performance in this category while not requiring similar mechanisms amongst the other investor-owned utilities.

CUE takes issue with my direct testimony noting that reliability incentives can conflict with safety incentives, saying this "is generally not true."[146] But this ignores the fact that, although there are overlapping projects and programs that promote both safety and reliability, my direct testimony shows that conflicts do exist. And, whenever there is clear prioritization of one value over another – here, a prioritization with financial penalties and incentives – there arises the opportunity for conflict. Although system reliability is a core value for SDG&E, it is a lesser priority than the safety of the community it serves. Since the identification of electric utility wildfire ignition risk in 2007, SDG&E has consistently sought to maintain clear priorities in its efforts to implement programs and facility improvements to minimize wildfire risk. SDG&E maintains that the PBR mechanism for system reliability will needlessly punish SDG&E for efforts to mitigate wildfire risk, and create an unnatural hierarchy prioritizing reliability over safety.

Additionally, due to the dry climate conditions over the last year (2017-2018), SDG&E has seen an increase in days that reclosing is turned off. CUE argues that the PBR mechanism should be adapted to remove reclosing policy related outages. But with the reclosing policy affecting such a large part of the service territory, the metric would fail to represent the outage performance of SDG&E's service territory, which nullifies the purpose for the metric.

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[144] D.08-07-046 at 49 (emphasis added).

[145] CUE (Marcus) at 96.

[146] CUE (Marcus) at 97

Finally, the newly adopted RAMP process supersedes the PBR mechanism and is a more adaptive solution to governing the changing risks and priorities inherent to the utility industry. Requiring SDG&E to retain an electric reliability PBR would falsely prioritize reliability over safety – which is notably inconsistent with the fact that the Commission has declined even to prioritize reliability on par with safety in recent proceedings.[147] This is just another reason that the electric reliability PBR mechanism in its current form conflicts with the RAMP prioritization framework, and should therefore be eliminated.

SDG&E recommends that the Commission disregard CUE's proposal to impose a PBR mechanism.

V. CORRECTION OF ERRATA

The following errata items in my testimony were identified as a result of responding to discovery and the research and review performed during that activity. These items collectively represent a reduction to the Electric Distribution O&M requested funding for Test Year 2016 of $0.412 million. Please see the table below describing that errata. SDG&E agrees to reduce its funding request for Electric Distribution O&M by this amount.

No.	Wkp/Description	Activity	TY2016 Change	
($000)	Comments			
1	1ED015.000 – Substation C&O	4kV modernization substation	-38	Calculated at 5% of capital. The capital forecast is $2,279 which means the O&M should be $114k. The request in workpapers and testimony was for $152k.
2	1ED002.000 – Construction Services	4kV modernization distribution	-359	Calculated at 5% of capital. The current capital estimate is $9,114, which means the O&M should be $456k, the current O&M request is testimony and workpapers is for $815k.
3	1ED002.000 – Construction Services	Overhead small wire and connector replacement	128	Calculated at 3.7% of capital. Current capital forecast is $32,657k which makes the O&M $1,208k. The current request is $1,080k.
4	1ED018.000 – Distribution and Engineering	PRiME	-123	Based on supplemental workpaper calculation methodology, non-labor should be $2,109k was requested at $2,142k.

[147] Ex. SDGE-15-2R (Speer) at WHS-97.

5	1ED011.000 – Electric Regional Operations	Customer Communications Safety Program	-50	There was one proposed advertisement related to gas safety.
Total	-442			

VI. CONCLUSION

To summarize, the parties that submitted proposals for Electric Distribution O&M were ORA, FEA, CUE, SDCAN, and SBUA. There were several activities that were unchallenged by individual parties, and several challenges on methodology. The largest proposed reductions between SDG&E's test year forecast and party forecasts were within the Construction Services and Electric Regional Operations work groups. ORA recommends a $10.6 million reduction and FEA recommends a $13.6 million reduction in the Construction Services work group, seemingly disregarding the justification for the incremental RAMP proposed programs. FEA utilizes a historical average only, disregarding the need for critical risk reduction programs such as PRiME, Overhead and Underground Switch Replacements, and 4kV modernization. ORA does discuss these programs, but ultimately recommends an inadequate level of 25% incremental funding by pointing to previous GRC underruns in this workgroup, as well as a perceived double counting presumed to exist because costs appear in multiple workgroups. SDG&E clearly addressed these issues in data request responses and rebuttal. The funding levels of previous programs should not solely dictate the approval of these new proposed risk reduction programs. It is also both customary and logical that different workgroups would perform different functions related to the same program, such as Distribution and Engineering performing engineering and design, and Construction Services performing the actual construction all under the same program. Furthermore, ORA itself recommends capital funding of significantly higher levels to some of these same programs, while separately underfunding the associated O&M components needed to complete that work.

For Electric Regional Operations, ORA recommends an $8.7 million[148] reduction and FEA recommends a $12.3 million[149] reduction. The reduction is largely associated with one of SDG&E's significant and important risk reduction programs, the Customer Communication

[148] $5.0M before filing Ex. SDG&E-15-2R (Speer). *See* Ex. ORA-05 (Godfrey) at 3.

[149] $8.5M before filing Ex. SDG&E-15-2R (Speer). *See* Ex. FEA-1 (Smith) at 76-77.

Safety Program, for which both ORA and FEA recommend no funding. This program was proposed in SDG&E's RAMP report, and mitigates the risk of a customer safety incident by educating customers on the hazards of downed power lines, as well as tree trimming and digging near electric facilities. SDG&E considers this a very important program. While we have many programs to address wildfire and aging infrastructure risk, this is the only proposed program that reaches out directly to customers to educate them on how to be safe near and around electric facilities. ORA does recognize the importance of safety-motivated customer outreach programs, but insists these programs already exist. SDG&E has explained through direct testimony, data request responses, and rebuttal that an outreach program with this focus and of this magnitude has not existed at SDG&E, and that this program is new and not already included in rates.

ORA and FEA take issue with the Test Year O&M forecast for the Vegetation Management – Tree Trimming work group. Each party proposes that instead of a two-way balancing account, SDG&E continue the use of a one-way balancing account. A two-way balancing account will allow SDG&E to react quickly to mitigate and manage emergent safety and reliability risks that are arising due to extended drought and fire safety issues as they become known, so that safe and reliable service can be maintained at a reasonable cost.

In many cases, SDG&E developed its forecasts using discrete incremental adjustments to the underlying base year or averages and trends of historical costs. ORA's and other parties' methods that rely almost exclusively on historical averages neglect to consider the individual merits of important new and necessary programs. SDG&E recommends that the Commission disregard recommendations based solely on those methods, and instead adopt SDG&E's forecasts as the preferred method. Furthermore, SDG&E's RAMP report proposed mitigation activities that would reduce identified safety risk levels. Consistent with this RAMP analysis, SDG&E included RAMP mitigation activities into the GRC. Given the Commission's direction to complete RAMP and to assess risk reduction effectiveness, it would have been reasonable for parties to discuss and evaluate these programs and explain why they should or should not be completely or partially funded; but in most cases parties seemed to ignore the RAMP proposed programs and utilize historical expense averages as their preferred forecast methodologies.

SDG&E has provided a substantial amount of detail supporting its forecasts in testimony, workpapers, and data requests. SDG&E's priority is to ensure we are providing safe and reliable electric service for our customers. The funding of these activities will allow SDG&E to continue

to provide that safe and reliable service, as well as mitigate critical safety risks. My direct testimony and workpapers support SDG&E's needs to ensure this obligation can be upheld.

This concludes my prepared rebuttal testimony.

APPENDIX A

ORA DATA REQUEST

ORA-SDGE-Oral-DR003-TLG
SDG&E 2019 GRC – A.17-10-007
SDG&E RESPONSE
DATE RECEIVED: MARCH 09, 2018
DATE RESPONDED: MARCH 27, 2018

Exhibit Reference: SDG&E-15 Electric Distribution O&M
SDG&E Witnesses: Will Speer
Subject: Various questions during conference call

During a conference call held on March 9 between SDG&E witness Will Speer, members of his support staff, Pete Girard and Tamera Godfrey/ORA, SDG&E agreed to provide additional information on several topics within the SDG&E-15 Electric Distribution O&M testimony.

1. Asset Management:
In response to the conference call held on 3/9/2018, the SDG&E Electric Distribution O&M rate case team would like to clarify some discussion regarding Asset Management. As stated in data request response, ORA-SDG&E-66 question 1.i, only two groups are being moved over into Asset Management: the Technology Solutions & Reliability Group, and the Compliance Management Group. There is no movement from ERO, the 19 backfilled positions discussed on page 2 of the Power Point slide showing a model org chart stated the move from ERO in error.

By moving those two groups over, 61 employees are now in the Asset Management group. Only 19 of those individuals perform complementary functions with asset management functions associated with aligning with ISO 55000 conformance. As stated in our testimony, and highlighted by the model org chart sent, we have 20 incremental positions associated with Asset Management and an additional 11 associated with Records Management that are incremental to our current staffing to support ISO 55000 conformance. These incremental positions make up the entire $4.2M request in the Asset Management Group testimony and workpapers. We are still requesting funding for the Compliance Management Group and the Technology Solutions & Reliability Group as those organizations will require the same level of staffing and funding to perform their roles, they have simply moved organizations.

> **Updated proposed org chart:** Attached is an updated org chart of the one that was used for discussion purposes during the conference call, "ORA-SDGE-Oral-DR003-TLG Asset Mgmt Dept Org Chart.pptx". This version is not confidential.

2. GO 165 Overhead Inspection and Maintenance, current pole loading requirements, FiRM, and PRiME:
In response to the conference call held on 3/9/2018, the SDG&E Electric Distribution O&M rate case team would like to clarify the differences between the Programs above, and when pole loading calculations are performed.

The GO 165 Inspection and Maintenance program:
The GO 165 Inspection and Maintenance program, sometimes called the Corrective Maintenance Program (CMP) involves three different types of inspections including patrols, detailed overhead inspections, and intrusive wood pole inspections:

> **Patrols** are performed annually on every facility (pole) in SDG&E's system and are a limited visual inspection to identify conditions and hazards that could adversely impact public or employee safety. These inspections are performed quickly and identify a small subset of potential infractions, but include the most significant safety items such as a leaning or damaged pole, damaged cross arm, or obvious clearance violation. If an issue is an immediate safety concern, the inspector will call a crew to remedy the issue and will not leave the structure until it can be made safe. If an issue is found that can be remedied with a follow up maintenance order, then the item is logged and a crew will be back within one year to make the repairs per SDG&E's filed maintenance plan.
>
> **Detailed overhead inspections** are performed on every overhead structure once every five years. These inspections take longer to complete and include the same infractions identified on patrols, but also include many other such as missing ground molding or high voltage signs, either vegetation or 3rd part encroachment on facilities, climbing space issues, issues with Communication Infrastructure Providers (CIPs), and many more. As with the patrol infraction, if the inspector finds an issue that is an immediate safety concern, the inspector will call a crew to remedy the issue and will not leave the structure until it can be made safe. If the infractions found can remedied with a follow up maintenance order, then the infractions are logged and a crew will be back within one year to make the repairs per SDG&E's filed maintenance plan.
>
> **The intrusive wood pole inspection** is performed on every distribution wood pole once every 10 years. SDG&E hires a contractor to perform these inspections that include boring into the base of the pole to determine if there are substantial cavities within the structure reducing the structural integrity. If the structure is determined to be beyond a certain threshold, it is recommended for replacement. These capital pole replacements typically occur within one year of the intrusive inspection, however, if a pole is found to be substantially deteriorated, a crew will be called to replace the pole.

Response to Question 2-Continued

These three inspections and associated follow up maintenance or capital replacements are part of our filed maintenance practice, we have been performing them since the mandated programs of General Order 165 were enacted in 1998.

Pole Loading:

SDG&E performs pole loading calculations per General Order 95 Rule 44.1 and Rule 44.2, which requires pole loading calculations to be completed upon the installation of a new structure, or any existing structure modification that impacts load on a structure. This means that SDG&E is not currently required to have pole loading calculations on every pole in its system, or perform pole loading calculations on many follow up maintenance orders such as the replacement of high voltage signs and ground molding, as these do not significantly impact structure loading. Pole loading calculations are performed on a new pole replacement to ensure the new pole meets design load requirements, or when a pole undergoes modifications such as the addition or replacement of conductor with larger diameter or new line angles. This also applies with the addition of 3rd party attachments like telecommunications conductors or antennae, or the addition of equipment like an overhead transformer or switch. These calculations have typically been performed using a software application called O-CALC in the past, SDG&E has been moving towards a more advanced application called PLS-CADD that can be used models when more precise survey data is available. SDG&E does not currently have a pole loading program capable of retroactively performing pole loading calculations on existing structures, thus the need for PRiME.

Pole Risk Mitigation and Engineering (PRiME):

As described in detail in SDG&E-15, the Pole Risk Mitigation and Engineering program will be the first program to evaluate and perform pole loading calculations on existing structures, independently and without the trigger of a structure modification such as adding additional equipment or replacing conductor (for conductor replacement see the FiRM program below). As described in the testimony, this will not be based on visual inspections like the GO165 programs, but will utilize a Light Detection and Ranging (LiDAR) survey and 3-D design models using PLS-CADD to perform the structure analysis. LiDAR data gathering is accomplished with a special device attached to an airborne platform such as an airplane, helicopter or drone. Once the analysis is performed, issues found in the analysis are addressed in a number of ways, including capital pole replacements or O&M solutions such as additional guys and anchors.

Response to Question 2-Continued

Fire Risk Mitigation (FiRM):
Our Fire Risk Mitigation Program (FiRM) is a program designed to replace small conductors that lack steel supporting strands with known high failure rates, in the areas with the highest risk of causing a wildfire. Examples of such conductors are #2 copper that is found on very old circuits. Once the circuits with the small wire are identified and prioritized, the FiRM program performs a LiDAR survey and creates a PLS-CADD design model to determine the loads of the new conductor on the existing structures. This can result in pole change-outs as the existing structure may not have sufficient remaining capacity for the new loading requirements of the larger diameter conductor being installed.

3. Difference between the $16M allocated by the commission and the $5M actual spend in 2016 for the Construction Services workpaper:
In response to the conference call held on 3/9/2018, the SDG&E Electric Distribution O&M rate case team would like to explain the difference between the $16M allocated by the commission and the $5M dollar actual spend. There were several drivers behind the lower than authorized spending in 2016. Two organizations that were part of the Construction Services Workpaper during the 2016 GRC are now included in a different workpaper. Specifically, the Aviation Services Department and the Fire Coordination & Prevention organizations are now within the Emergency Management workpaper. Together, these two groups had a combined spend of $2.225M.

A reprioritization of efforts related to the Fire Risk Mitigation (FiRM) program has led to a shift from O&M-intensive activities to Capital-intensive activities, which attributed to the majority of the underrun. Specifically, at the time of the TY2016 forecast, FiRM had planned to do a large-scale O&M survey and engineering analysis on the lines and structures within the HRFA. However, as the project ramped up, the primary risk reduction activity of replacing conductor with known high failure rates became the priority over the analysis, which was primarily capital activity. ORA-SDGE-073-Q1a shows how the underruns were reallocated to new workgroups or workgroups with overruns.

4. Functional differences and cost estimates for programs that have work components performed in multiple workpapers:
In response to the conference call held on 3/9/2018, the SDG&E Electric Distribution O&M rate case team would like to clarify the functional differences and cost estimates for programs that have work components performed in multiple workpapers. The following programs have work components, and thus costs, in multiple workgroups:

- Switch Replacement Projects
    - Overhead Switch Replacement
    - Underground Switch Replacement
- PRiME

Switch Replacement Projects:
Costs for the Overhead and Underground Switch Replacement projects have components in both 1ED002 – Construction Services and 1ED011 – Electric Regional Operations (ERO). These projects each have an inspection component, and a construction component (see SDGE-15-WP p.35).
SDG&E will use internal labor from its Electric Regional Operations department to inspect all non-FMO (Field Maintenance Only) switches. The inspections will consist of the Qualified Electrical Worker performing a visual inspection of the switch, and whenever feasible, operating the switch to ensure it operates per specification. The labor costs associated with these inspections are captured in 1ED011 – Electric Regional Operations.

Switches that fail the inspection performed by ERO will initiate a construction project to replace the switch using contract labor from Construction Services. The construction job will involve obtaining permits, procuring material, scheduling the work, the removal of the existing switch, and the installation of the new switch. These tasks are better suited to be performed by Construction Services, as they have the necessary resources to perform this type of work. Electric Regional Operations is more focused on maintenance and compliance activities. These non-labor construction costs are captured in 1ED002 – Construction Services.

PRiME
Costs for the PRiME project have components in both 1ED002 – Construction Services and 1ED018 – Distribution and Engineering. This project has an engineering analysis component (see SDGE-15-WP p.201), and a construction component (see SDGE-15-WP p.36).
SDG&E will use contract labor to perform the pole-loading analysis and design work associated with pole replacements and rearrangements. An engineering firm will be chosen to perform the detailed loading analysis of the poles including PLS-CADD modeling and as-builts where required. When the loading analysis demonstrates that a pole is loaded beyond our specifications, a contract design firm will create a design package for the pole replacement. The design package will include the necessary permits and construction drawings required for construction crews to complete the project.

Response to Question 4-Continued

These are the non-labor costs captured in 1ED018 – Distribution and Engineering. SDG&E will also use internal labor to perform project management functions such as tracking the progress of pole analysis, contractor oversight, and associated reporting. These are the labor costs captured in 1ED018 – Distribution and Engineering.

SDG&E will use contract labor through its Construction Services department to perform the construction projects generated from the analysis. The construction projects will consist of procuring material, scheduling the work, removing the existing pole and conductor, and installing the new pole and conductor. These tasks are better suited to Construction Services, as they have contracts with qualified electrical workers that are trained to perform and oversee this type of work. These non-labor construction costs are captured in 1ED002 – Construction Services.

5. Related to the Electric Distribution Operations workpaper, clarification of linear forecasting and explanation of exempt materials as a driver for cost increases:

In response to the conference call held on 3/9/2018, the SDG&E Electric Distribution O&M rate case team would like to explain the cost drivers and impact of the 3 year linear forecast. The "Forecast Method" section of the testimony, which can be found on SDG&E-15 pages 30,31 provides a comprehensive description- with examples- of exempt materials, and explains why SDG&E expects this linear trend to continue

Additionally, please see attached "EDO Forecast.xlsx" for an illustration and explanation of 'linear trend' forecasting.

6. Labor/Non-Labor breakdown of $330k change in the forecast for the Emergency Services workpaper:

In response to the conference call held on 3/9/2018, the SDG&E Electric Distribution O&M rate case team would like to clarify the labor/non-labor breakdown of the $300k in changes to the Emergency Services workpaper. The discrepancy of $0.330 million is attributed to the net of the following: correcting an erroneous entry of $220k for materials for Emergency Mobile Command Trailers (EMCTs), the reduction of $20k for costs related to RAMP Weather Stations, the addition of $220k for Cloud Computing for Meteorology, the addition of $300k for Software Programming Services, and the addition of $50k for the Sprinter Van Outfit. The entirety of these costs is non-labor. This information was also provided as part of the response to ORA-SDGE-064-TLG Q1b.

7. Variation in the overall historical costs from 2012-2016:
In response to the conference call held on 3/9/2018, the SDG&E Electric Distribution O&M rate case team would like to clarify the variation in the (overall) historical costs 2012-2016. In nearly every O&M workgroup, the amount of O&M spend will change on annual basis due significant variables in the workload. Variables such as extreme weather, storms and red flag warnings will cause O&M numbers to rise and fall depending on the number of occurrences. The number of outages, types of outages, the time of the outage occurrence (on-hours versus off-hours) will drive O&M up and down depending on the types and frequencies. Maintenance, including the number of required inspections and the number and types of maintenance follow-up work required, will have variable impacts on O&M. The amount of Capital versus O&M work a workgroup performs in a year will impact the O&M output depending on the actual work ratio. For these reasons, historical cost averages were typically used as the baseline estimates, as they smooth the peaks and valleys that occur due to work variability and provide reasonable forecasts. In the instances where methodologies other than averages were used for the base estimate, such as base-year costs, linear trends, or zero-based estimates, the specific reason for the selection of that other methodology is described in the 'methodology' section of the testimony.

8. Discrepancy between the $20,690k stated in the testimony within Table WS-8 and the $19,167k stated within Table WS-6:
In response to the conference call held on 3/9/2018, the SDG&E Electric Distribution O&M rate case team would like to clarify the discrepancy between the $20,690k stated in the testimony within Table WS-8 and the $19,167k stated within Table WS-6. Table WS-8 on page WHS-19 reads $20,690k. The correct amount is the $19,167k amount shown in table WS-6 and in the workpapers. The error was caused by a late addition adjustment in fueling our future (FOF) savings of $1,523k. This information was also provided as part of the response to ORA-SDGE-064-TLG Q1c

APPENDIX B

GLOSSARY OF TERMS

BY	Base Year
Commission	California Public Utilities Commission
CPUC	California Public Utilities Commission
CUE	The Coalition of California Utility Employees
DER	Distributed Energy Resources
ERO	Electric Regional Operations
ESS	Enterprise System Solutions
ESS	Enterprise System Solutions
FEA	The Federal Executive Agencies
FiRM	Fire Risk Mitigation
FMO	Field Maintenance Only
FOF	Fueling Our Future
FTE	Full-Time Equivalent
GBS	Geographic Business Solutions
GO	General Order
GRC	General Rate Case
LTC	Load Tap Changer
LTC	Load Tap Changer
O&M	Operations and Maintenance
OMS	Outage Management System
OMS	Outage Management System
ORA	The Office of Ratepayer Advocates
OTI	Operations Technology Integration
PBR	Performance Based Mechanism
PBR	Performance Based Ratemaking
PC	Project Coordinator
PRIME	Pole Risk Mitigation and Engineering

RAMP	Risk Assessment Mitigation Phase
RPA	Regional Public Affairs
RVP	Regional Vice President
SAWTI	Santa Ana Wildfire Threat Index
SBUA	Small Business Utility Advocates
SCADA	Supervisory Control and Data Acquisition
SDCAN	San Diego Consumers' Action Network (SDCAN)
SDG&E	San Diego Gas & Electric
SED	Safety and Enforcement Division
SOT	Service order Team
TOU	Time of Use
TY	Test Year