Subject: Electric Distribution O&M Expenses

Please provide the following: Electric Distribution Operations

1. Please confirm that the supplemental workpapers for Electric Regional Operations are located on WP pages 28-31 (contrary to WP Page 15's instruction and the index of workpapers).

SDG&E Response:

Yes, that is correct. The supplemental workpapers for Electric Regional Operations are located on WP pages 28-31.

2. Please explain in detail why labor costs have decreased continually from \$26.341 million in 2009 to \$22.172 million in 2013. Provide all supporting documentation and calculations.

SDG&E Response:

The primary reason for the decrease in labor costs was decreased headcount. FTEs decreased from 211.2 in 2009 to 175.2 in 2013.

Please see the workpapers for supporting documentation; Exh No:SDG&E-10-WP/Witness: J. Woldemariam.

3. In ORA-SDG&E-DR-002-EJ1 Q.5a., ORA asked SDG&E to "provide 5 years (2009-2013) of the historical number of FTEs for this work activity alongside SDG&E's forecast." In its response, SDG&E's column titled "TY 2016 Incremental" contains \$0.200 million in labor costs. This information indicates that SDG&E's *total* TY 2016 forecast for Behavior Based Safety Training is \$0.472 million (2013 base year plus incremental costs of \$0.200 million). Please confirm if this is correct. If not, please explain and provide the correct numbers.

SDG&E Response:

Yes, that is correct. SDG&E's total TY 2016 forecast for Behavior Based Safety Training is \$0.472 million (2013 base year plus incremental costs of \$0.200 million).

4. In ORA-SDG&E-DR-002-EJ1 Q.5b, ORA asked SDG&E "to show precisely how SDG&E derived the exact forecasted cost and exact forecasted number of FTEs for this work activity." In its response, SDG&E stated: "SDG&E did not perform a work-study analysis as this training has been in place for a number of year and this is part of the standard curriculum." If this work activity is "part of the standard curriculum," please explain why embedded funding is no longer sufficient to address expenses in the test year and why SDG&E is requesting an incremental increase of \$0.200 million. In addition, show in detail how SDG&E derived its incremental increase of \$0.200 million.

SDG&E Response:

The incremental increase of \$0.200 million is needed to cover the cost associated with meeting the Behavioral Science Technology (BST) recommendation as well as SDG&E's organizational goal of a monthly contact rate of 1.0, meaning that every observable employee should be observed at least once a month.

- SDG&E has approximately 300 observable employees;
- There are currently 25 active observers;
- The average number of employees observed per observer is 5;
- SDG&E will need an additional 35 observations performed monthly to reach a Contact Rate of 1.0.

Below is a chart of the detailed costs associated with implementing the desired program. Estimated expenses for In-House Training, BST Workshops, & BST SIA Conference vary from year to year, but are based on the following (dollars in thousands):

Total	\$2	200
per employee for conference fees, man hours, & travel	Ś	25
BST Annual SIA Conference (5 employees at approx \$5K		
BST Workshops (2 per year at approx \$3,500 each)	\$	7
\$51.71 per hour)	\$	13
In-House Training (8 employees , 4 trainings per year at		
months, less training and workshop hours	\$2	155
35 Additional Observations at \$51.71 per hour for 12		

Labor costs are approximations based on a lineman hourly rate of \$51.71 per hour. This does not take in to account that some Steering Team Leads and Observers may be Working Foreman, Electric Trouble Shooters, Fault Van Specialists, or reliefs and may be compensated at a high rate during BBS functions.

- 5. SDG&E forecasts an incremental increase of \$0.350 million over its base year forecast for Workforce Development (WP page 30).
 - a. Please provide 5 years (2009-2013) of historical labor and non-labor expenses for this work activity alongside SDG&E's total (not incremental) TY 2016 forecast for the work activity (however, incremental costs should correspond with the data provided in SDG&E's workpapers). If this information cannot be provided, please explain how SDG&E is able to forecast TY 2016 costs without knowing current or historical costs for this work activity.
 Pease note that In response to ORA-SDG&E-DR-002-EJ1 Q.7, SDG&E states: "On page 12 of Exh.No: SDG&E-10-WP/Witness:J.Woldemariam, SDG&E has provided a breakdown of the historical data for these work activities." The historical information provided on this page is not broken down by the work activities for which SDG&E is requesting incremental increases in funding (e.g. red flag warning operations, traffic control expenses, etc.).
 - b. Please clarify if this is a routine and ongoing work activity. If yes, please explain in detail why current funding is no longer sufficient to address the test year work load. Provide all work-load analyses conducted by SDG&E that justify an increase over current levels of funding. If SDG&E did not conduct a work-load analysis, please explain why not.
 - c. Please show precisely how SDG&E derived the <u>exact</u> forecasted cost for this work activity. Provide all supporting calculations, documentations, explanations, and analyses used to derive the forecast. If there is no precise basis for an individual estimate or if the basis is subjective, please state so and explain SDG&E's reasoning for its estimate.

a.															
	Electric Regional Operations														
	Workforce Development														
	Dollars in thousands														
				Rec	orde	d Histo	rica	l			Fo	orecast			
Years		2009	2	2010	2	2011		2012	2	2013		2016			
Labor	\$	1,102	\$	803	\$	475	\$	607	\$	736	\$	1,796			
Non-Labor	\$	170	\$	119	\$	82	\$	147	\$	138	\$	138			
Total	\$	1,272	\$	922	\$	557	\$	754	\$	874	\$	1,934			

SDG&E Response:

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Response to Question 5 (Continued)

- b. Workforce Development is held on an as needed basis for the Apprentice Lineman Class. We anticipate the need for two Apprentice Classes per year as a result of attrition from an aging workforce.
- c. The forecasted amount is based upon adding an additional apprentice class as well as borrowing instructors from the Districts. The cost value for each type of training is primarily labor-based and is an estimate based on our experience from conducting prior classes of this type.

Line Assistant Class (7 weeks)	\$ 130,000
Climbing School & Basic Secondary (6 weeks)	\$ 150,000
Advanced Secondary (4weeks)	\$ 70,000
Total	\$ 350,000

6. SDG&E forecasts an incremental increase of \$0.127 million over its base year forecast for Overhead Switch Inspection and Maintenance (WP page 31). Please refer to question #5 and address the same questions. Provide an answer for each part of the question.

SDG&E Response:

a. (From Q5 - historical expenses) Prior to 2012, SDG&E did not track this activity separately. Therefore, historical data does not exist prior to 2012.

Ele	ctric	Regiona	I O	peration	S								
OH Switch Inspections													
Dollars in thousands													
	Recorded Historical Forecast												
Years	2	2012		2013		2016							
# of Switches		50		50		185							
Labor	\$	23	\$	17	\$	170							
Non-Labor	\$	22	\$	\$ 29		-							
Total	\$ 45 \$ 46 \$ 170												

- b. (From Q5 routine activity) This is an enhancement to a routine activity. For several years, the Overhead Switch Inspection program focused on fire prone areas in order to prevent catastrophic switch failures, and possible wildfires, in those areas. There is now a renewed focus on expanding the Overhead Switch Inspection program to the coastal areas in order to inspect and repair/replace switches damaged due to corrosion.
- c. (From Q5 forecast calculation) The overhead switch inspection program provides service to our customers when a switch needs to be operated. We need to insure that all overhead switches are maintained and in good working condition. The work consists of a WF-3 crew and includes inspection and exercising of the switch blades, maintenance of the contacts and checking/adjusting the control rod for gang operated switches. 185 switches will be inspected each year within SDG&Es Service Territory. Two Hours per Switch to perform maintenance. Loaded cost for 1 WF-3 for two hours equates to \$688. \$127,280.00 per year. (see table following)

Overhead Switch Inspections												
# Switches	# Switches # of Switches WF-3 Hourly # of Hours											
to Inspect	per Year	Cost	per Switch	Cost Per Year								
555	185	344	2	127,280								

- 7. SDG&E forecasts an incremental increase of \$0.727 million over its base year forecast for the Overhead Connector Program (WP page 31). Please refer to question #5 and address the same questions. Provide an answer for each part of the question. In addition, please answer the following question.
 - a. On page 11, SDG&E states: "The Overhead Connector program will replace some of the previously approved connection methods to be more in line with current industry standards." Please explain why SDG&E has waited until now to ensure that overhead connectors are more in line with current industry standards.

- a. (From Q5 historical expenses) Historical costs for this work activity are currently not tracked separately. SDG&E is requesting these funds to establish a program similar to the General Order-165 Corrective Maintenance Program.
- b. (From Q5 routine activity) Currently, Overhead Connector activities are conducted as part of the standard maintenance practice. Due to the large number of connectors in the system, a dedicated connector program would provide for a better tracking mechanism.
- c. (From Q5 forecast calculation)

Hotline Clamp Replacement Locations (per Pole)	x	WF4 Crew Costs	x	Average Locations per 8 hour Day	=	Total Incremental Cost
1545		\$ 235.31		4		\$ 727,108

8. SDG&E forecasts an incremental increase of \$0.56 million over its base year forecast for CMP Inspection Intervals (WP page 31). Please refer to question #5 and address the same questions. Provide an answer for each part of the question.

- a. (From Q5 historical expenses) Historical costs for this work activity are imbedded in the total CMP expense and cannot be broken out separately.
- b. (From Q5 routine activity) This is a change to a routine activity. The changes to GO165 went into effect in 2012, however, SDG&E's advice letter regarding the re-pathing of this work was not approved until late 2013. This activity became routine beginning in 2014 and will be ongoing for the life of the CMP program. There is currently no funding to support this additional effort required as a result of the changes to GO165.
- c. (From Q5 forecast calculation) It is estimated that each District will be required to spend approximately 100 hours per year to re-path the inspections.

# of Districts =	8	
Time per District =	100	hours
Average Cost per Hour =	\$72.70	
Total Additional Annual Cost =	\$58,163.46	

- 9. SDG&E forecasts an incremental increase of \$0.500 million over its base year forecast for Intrusive Wood Pole Load Calculation Increases (WP page 31). Please refer to question #5 and address the same questions. Provide an answer for each part of the question. In addition, please answer the following question.
 - a. SDG&E states: "Over the next three years, additional pole loading calculations will be required for each inspected pole in order to ensure that all pole safety factors are meeting G.O.95 requirements with a particular focus on the intrusive wood pole inspections." Is conducting pole loading calculations an ongoing work activity? If yes, please explain why the current rate of conducting pole loading calculations is no longer sufficient and why additional pole loading calculations are needed over the next three years. If G.O.95 requirements changed in historical years, please identify the new requirements and the year that they were implemented.

SDG&E Response:

Electric Regional Operations													
Intrusive Wood Pole Load													
Dollars in thousands													
Recorded Historical Forecast													
Years	2	011	2	2012	2	013	2016						
Labor	\$	-	\$	-	\$	-	\$	-					
Non-Labor	\$	177	\$	644	\$	980	\$ 1,48						
Total	\$	177	\$	644	\$ 980 \$ 1,480								

a. (From Q5 - historical expenses)

- b. (From Q5 routine activity) This is a routine activity. Based on the historical data provided below, SDG&E is projecting that the same rate of increase will continue in future years.
- c. (From Q5 forecast calculation) Also addressing the additional part 'a' above: The average cost is \$160.00. Total work requests for 2012......4,195

Total work requests for 2013......6,252

It is anticipated that pole loading calculations will increase by 50% throughout the next three years (2014, 2015 and 2016).

Utilizing the total requests for 2013 and an average cost of \$160, the following would show the increased cost estimate:

= 50% x 6,252 = 3,126

Cost = \$160 x 3126 = \$500,160

10. SDG&E forecasts an incremental increase of \$1.359 million over its base year forecast for Red Flag Preparedness (WP page 31). Please refer to question #5 and address the same questions. Provide an answer for each part of the question.

SDG&E Response:

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

11. SDG&E forecasts an incremental increase of \$0.074 million over its base year forecast for elevated wind conditions (WP page 31). Please refer to question #5 and address the same questions. Provide an answer for each part of the question.

SDG&E Response:

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

12. SDG&E forecasts an incremental increase of \$0.046 million over its base year forecast for outage patrolling during high fire risk periods (WP page 31). Please refer to question #5 and address the same questions. Provide an answer for each part of the question.

SDG&E Response:

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

13. SDG&E forecasts an incremental increase of \$0.055 million over its base year forecast for badge access to military bases (WP page 31). Please refer to question #5 and address the same questions. Provide an answer for each part of the question.

- a. (From Q5 historical expenses) Historical costs associated with badge access to military bases are not tracked separately.
- b. (From Q5 routine activity) This is an enhancement to a routine activity. The RAPIDGate program has been developed to enhance access security at participating United States military and other government facilities. It also is designed to improve onsite access for eligible companies and their employees who conduct official business on such facilities on a recurring basis.
- c. (From Q5 forecast calculation) The cost is \$159 per pass per government facility. 245 employees equates to \$39,200. Metro C&O requires access to two bases at \$199 for access to both with 80 employees equates to \$16,000 per year. Totals \$55,200 per year.

14. SDG&E forecasts an incremental increase of \$0.025 million over its base year forecast for FR Shirt Replacement (WP page 31). Please refer to question #5 and address the same questions. Provide an answer for each part of the question.

- a. (From Q5 historical expenses) This is a new activity, therefore, there are no historical costs.
- b. (From Q5 routine activity) This is an enhancement to a routine activity. OSHA has updated the requirements effective April 2015 for Company to provide all Arc-rated outer wear (shirts, pants, jackets, etc.) This will require replacement of the current FR shirts to new shirts that meet the higher arc-rating.
- c. (From Q5 forecast calculation)

						Total
	v	# of shirts per	v	# of New Line		Incramental
Cost per shirt	X	line employee	X	Assitants per Year	=	Cost
\$57		11		40		\$25,080

15. SDG&E forecasts an incremental increase of \$0.100 million over its base year forecast for Phase 2 of the Performance Management Reporting System (WP page 31). Please refer to question #5 and address the same questions. Provide an answer for each part of the question.

- a. (From Q5 historical expenses) The Performance Management Reporting System was placed into service in 2013. Therefore, we have no historical labor or non-labor O&M cost data to provide.
- b. (From Q5 routine activity) This is an enhancement to a routine activity. The Performance Management Reporting system is an ongoing aspect of our business operations. Without historical O&M expenses, all future O&M expenses associated with the system, including software maintenance agreements are incremental in nature.
- c. (From Q5 forecast calculation) The \$100k estimate is based on similar contracted software support.

16. SDG&E forecasts an incremental increase of \$0.075 million over its base year for an Automated Roster Callout system. (WP page 3118). Please refer to question #5 and address the same questions. Provide an answer for each part of the question.

- a. (From Q5 historical expenses) The Automated Roster Callout system was placed into service in 2013. Therefore, we have no historical labor or non-labor O&M cost data to provide.
- b. (From Q5 routine activity) This is an enhancement to a routine activity. The Automated Roster Callout system is an ongoing aspect of our business operations. Without historical O&M expenses, all future O&M expenses associated with the system, including software maintenance agreements are incremental in nature.
- c. (From Q5 forecast calculation) To maintain the Automated Roster Callout system SDG&E are contractually obligated to pay annual software maintenance fees.

17. SDG&E forecasts an incremental increase of \$0.100 million over its base year forecast for Work Management Process and Systems Support (WP page 31). Please refer to question #5 and address the same questions. Provide an answer for each part of the question.

- a. (From Q5 historical expenses) This program was implemented in 2013. Therefore, there is no historical data for this activity.
- b. (From Q5 routine activity) This is an enhancement to a routine activity. The additional resources will be used to analyze business process and to identify process and system improvements for our inspection and maintenance programs.
- c. (From Q5 forecast calculation) This will provide for a contract labor resource (2000 hr x \$50/hr) to aid in process improvement activities and to develop related process documentation.

- 18. SDG&E forecasts an incremental increase of \$0.731 million over its base year forecast for additional C&O planners to meet future needs (WP page 31). Please refer to question #5 and address the same questions. Provide an answer for each part of the question. In addition, please answer the following question.
 - a. SDG&E states that it needs "additional C&O Planners and Supervisors to meet future needs." Please identify all future needs that are not currently being addressed by current funding levels.

SDG&E Response:

- a. (From Q5 historical expenses) Historical costs for this work activity are embedded in operating costs and cannot be broken out separately.
- b. (From Q5 routine activity and part 'a' above) This is an enhancement to a routine activity. The incremental increase is to allow for additional C&O Planners. The work the new C&O Planners will be doing is writing and fielding a high volume of CMP jobs with a goal of alleviating the Construction Supervisor's workload. This will allow the Construction Supervisors to field more jobs and observe crews while working.

Positions	OI	s Assist	C8	to Planner	F	orecaster	C	Service oordinator	Service Planne r	ustome r roj Plnr	N	Project Aanagement Assistant	
Annual Salary (Est.)	\$	51,480	\$	85,000	\$	110,500	\$	57,500	\$ 77,500	\$ 75,000	\$	60,000	
# of Positions		5		9		1		2	6	2		1	
Total Salary Cost	\$	257,400	\$	765,000	\$	110,500	\$	115,000	\$ 465,000	\$ 150,000	\$	60,000	
Total O&M	\$	84,427	\$	250,920	\$	36,244	\$	1,886	\$ 7,626	\$ 2,460	\$	984	
V&S	\$	46,332	\$	137,700	\$	19,890	\$	20,700	\$ 83,700	\$ 27,000	\$ 10,800		
Total	\$	130,759	\$	388,620	\$	56,134	\$	22,586	\$ 91,326	\$ 29,460	\$	11,784	\$ 730,669.20

c. (From Q5 - forecast calculation)

19. SDG&E forecasts an incremental increase of \$0.032 million over its base year forecast for resource needs for ARSO and Forecaster (WP page 31). Please refer to question #5 and address the same questions. Provide an answer for each part of the question.

SDG&E Response:

a. (From Q5 - historical expenses) The scheduling and dispatch organization (ARSO) was established in 2010. There is no historical O&M expense in 2009. Costs began in May 2010.

		Ele	ctri	c Regior	al C	peratio	ns								
	Area Resource Scheduling Organization (ARSO)														
	Dollars in thousands														
	Recorded Historical Forecast														
Years		2010		2011		2012		2013	2016						
Labor	\$	137	\$	895	\$	1,085	\$	1,310	\$ 1,406						
Non-Labor	\$	51	\$	21	\$	31	\$	60	\$	60					
Total	\$	188	\$	916	\$	1,116	\$	1,370	\$	1,466					

b. (From Q5 - routine activity) This is an enhancement to a routine activity. The current mix of schedulers and dispatchers has been evaluated and it has been determined that the ARSO will require one additional scheduling resource and one additional dispatching resource. These resources are required in order to fully support the efficient scheduling and dispatching requirements for the C&O Districts. The scheduler and dispatcher will be trained on the job in order to ensure maximum efficiencies are obtained.

Positions	Sc	heduler	Di	ispatcher	
Annual Salary (Est.)	\$	96,100	\$	66,612	
# of Positions		1		1	
Total Salary Cost	\$	96,100	\$	66,612	
Total O&M	\$	1,576	\$	1,092	
V&S	\$	17,298	\$	11,990	
Total	\$	18,874	\$	13,083	\$ 31,957

c. (From Q5 - forecast calculation)

20. SDG&E forecasts an incremental increase of \$0.534 million over its base year forecast for Jurisdictional Permitting and OT Drivers (WP page 31). Please refer to question #5 and address the same questions. Provide an answer for each part of the question.

SDG&E Response:

a. (From Q5 - historical expenses)

Municipality Permits	2010	2011	2012	2013
O&M - Non-Labor	\$ 229,441	\$ 252,590	\$ 379,567	\$ 290,716

- b. (From Q5 routine activity) This is an enhancement to a routine activity. Certain jurisdictions require inspection work to occur during overtime hours due to city traffic congestions and moratoriums. Below are the costs projected for Metro, Beach Cities, North Coast and Orange County, which have these restrictions. It is also estimated that one additional permitting specialist will be needed to meet the increasing permitting requirements.
- c. (From Q5 forecast calculation)

Permitting Specialist Total Labor	\$52,000 \$146,552
Total OT	\$94,552
OC	\$23,638
NC	\$23,638
BC	\$23,638
Metro	\$23,638

- 21. In response to ORA-SDG&E-DR-002-EJ1 Q.6, SDG&E stated: "An analysis of recent permit activities shows an increase in costs of approximately 10% per year, which is projected to continue over the next several years, as the jurisdictions continue to increase permit requirements."
 - a. Please provide a copy and explanation of SDG&E's analysis of recent permit activities. Explain in detail how the analysis "shows an increase in costs of approximately 10% per year."
 - b. SDG&E states that traffic control "expenses are based on 2013 actual expenditures with a 10% increase estimated each year" (WP page 31). Given that SDG&E "does not have the traffic control expenses broken out by plan category," please identify and show how SDG&E derived 2013 actual expenditures. Provide exact calculations.
 - c. Please provide the <u>exact</u> calculations used to derive the forecasted increase of \$1.489 million for traffic control expenses.

SDG&E Response:

a. The table below represents the costs for permits SDG&E has paid for years 2010 through 2013. The future years see a 10% increase each year (which is what the approximate increase between 2010 and 2011 represents). The year 2012 shows a higher increase, which was due to the Sunrise Power Link Project.

These amounts represent any type of permit (excavation, encroachment and TCP approvals) from all of our 26 municipalities, Caltrans, and 2 Rail Agencies (29 agencies total).

On average, we are granted approximately 700-800 permits per year from all the municipalities and public agencies from whom we request permission.

Municipality Permits	2010	2011	2012	2013
O&M - Non-Labor	\$ 229,441	\$ 252,590	\$ 379,567	\$ 290,716

Response to Question 21 (Continued)

b.

District	Cost Center	Vendor Name		Total	
Metro	2100-0077	CO'S TRAFFIC CONTROL INC		\$ 53,001	
		PRO TRAFFIC SERVICES INC		\$ 7,103	
	2100-0077 Total			\$ 60,104	
North Coast	2100-0086	PRO TRAFFIC SERVICES INC		\$ 148,632	
	2100-0086 Total			\$ 148,632	
Northeast	2100-0091	PRO TRAFFIC SERVICES INC		\$ 241,290	
	2100-0091 Total			\$ 241,290	
Beach Cities	2100-0101	CO'S TRAFFIC CONTROL INC		\$ 537,558	
		PRO TRAFFIC SERVICES INC		\$ 177	
	2100-0101 Total			\$ 537,735	
Eastern	2100-0106	CO'S TRAFFIC CONTROL INC		\$ 591,286	
		PRO TRAFFIC SERVICES INC		\$ 2,437	
	2100-0106 Total			\$ 593,723	
Mtn Empire	2100-0108	CO'S TRAFFIC CONTROL INC		\$ 4,563	
	2100-0108 Total			\$ 4,563	
Orange Cty	2100-0114	PRO TRAFFIC SERVICES INC		\$ 2,641	
	2100-0114 Total			\$ 2,641	
Eastern -SOT	2100-0721	CO'S TRAFFIC CONTROL INC		\$ 1.074	
		PRO TRAFFIC SERVICES INC		\$ 143	
	2100-0721 Total			\$ 1,216	
Norht Coast - SOT	2100-3404	CO'S TRAFFIC CONTROL INC		\$ 1,526	
		PRO TRAFFIC SERVICES INC		\$ 738,490	
	2100-3404 Total			\$740,016	
	Grand Total			\$ 2,329,919	\$ 2,795,903
	Capital		60%	\$ 1,397,951	\$1,677,542
	O&M		40%	\$ 931,968	\$ 1,118,361

Similar to permitting costs, it is estimated that traffic control costs will be increasing on a 10% annual basis. Therefore, the following are the estimated costs going forward:

2013 Total Costs	\$ 2,795,903			
Year	2013	2014	2015	2016
Capital	\$ 1,677,542	\$1,845,296	\$2,029,826	\$2,232,808
O&M	\$ 1,118,361	\$1,230,197	\$1,353,217	\$1,488,539
Total	\$ 2,795,903	\$3,075,493	\$3,383,043	\$3,721,347

c. Please see the table provided in the response to question b above.

Skills and Compliance Training:

22. Please explain in detail why costs decreased from \$3.564 million in 2009 to \$2.812 million in 2010. Provide all supporting documentation and calculations.

SDG&E Response:

The decrease in labor from 2009 - 2010 was attributable to less C&O Overhead Center Training and Equipment Training. Specifically, there was less apprentice lineman training, line assistant and electrical worker training as well as a reduction in Equipment Training. Due to a reorganization, Gas Training was moved out of Skills to Southern California Gas Company. There were also several performance support analysts that retired during that time.

Please see the workpapers for supporting documentation; Exh No:SDG&E-10-WP/Witness: J. Woldemariam.

23. Please explain in details while costs continually increased from \$2.812 million in 2010 to \$3.660 million in 2013. Provide all supporting documentation and calculations.

SDG&E Response:

The increase in expenses between 2010 and 2013 was a combination of labor and non-labor expenses. From a labor standpoint, C&O training increased during this period. From a non-labor standpoint, there was an increase attributable to purchased labor to supplement the existing workforce in addition to temporary backfill for employees on leave.

Please see the workpapers for supporting documentation; Exh No:SDG&E-10-WP/Witness: J. Woldemariam.

24. Does SDG&E routinely update and revise its training programs and training devices? If no, please explain why not.

SDG&E Response:

SDG&E revises its training programs and training devices as resources are available, technology or procedures require and other circumstances warrant, there is not a fixed schedule for revisions.

- 25. SDG&E forecasts an incremental increase of \$0.080 million over 2013 recorded expenses for a Tool Technician (WP page 99). The "technician will be in charge of maintaining and operating [the] storeroom... Responsibilities will include keeping an up to date current inventory of all tools and materials, monitor equipment, provide maintenance support, tracking tools and material utilization."
 - a. Who is currently in charge of maintaining and operating the storeroom? Has this work been performed in the past? If yes, please provide the historical costs and explain in detail why current funding is no longer sufficient to address test year expenses. If no, please explain why not and why SDG&E has waited until now to address this need.
 - b. Please show precisely how SDG&E derived the <u>exact</u> forecasted cost for the Tool Technician. Provide all supporting calculations, documentations, explanations, and work-load analyses used to derive the forecast. If there is no precise basis for an individual estimate or if the basis is subjective, please state so and explain SDG&E's reasoning for its estimate.

SDG&E Response:

a. This position has not been funded in the past. Instructors have been managing tools and equipment as class requirements dictate. This ad hoc approach has led to material ordering and inventory control challenges, issues with maintaining equipment calibration, and other issues that will be addressed by a dedicated Tool Technician.

Centralizing this responsibility will lead to more efficient management of materials, will improve inventory control, improve timeliness of equipment calibration, and improve compliance with rubber glove testing, among others. This position will also coordinate environmental compliance for tools, equipment and other training resources as applicable.

b. \$80K annual salary was estimated for this position, consistent with other similar positions.

- 26. SDG&E forecasts an incremental increase of \$0.090 million over 2013 recorded expenses for an additional Trainer/Performance Support Analyst and a Certified Athletic Trainer/Safety Advisor (WP page 99).
 - a. Have these positions been filled in the past? If yes, please provide the historical costs and explain in detail why current funding is no longer sufficient to address test year expenses. If no, please explain why not and why SDG&E has waited until now to address this need.
 - b. Please show precisely how SDG&E derived the <u>exact</u> forecasted cost for these positions. Provide all supporting calculations, documentations, explanations, and work-load analyses used to derive the forecast. If there is no precise basis for an individual estimate or if the basis is subjective, please state so and explain SDG&E's reasoning for its estimate.

- a. No, these positions have not been filled in the past. Historically, SDG&E has been able to cover this important role as a secondary responsibility performed by existing staff. Skills & Compliance Training has increased its commitment to employee safety and the recognition that we need to better prepare students for the physical demands of line work, injury prevention and overall longevity of employees, having the appropriate expertise and focus in this area is critical.
- b. \$90K annual salary was estimated for this position, consistent with other similar positions.

- 27. SDG&E forecasts an incremental increase of \$0.281 million over 2013 recorded expenses for aging infrastructure (WP page 100).
 - a. Has SDG&E addressed these issues in the past? If yes, please provide the historical costs. If no, please explain why not and why SDG&E has waited until now to address issues associated with aging infrastructure and equipment.
 - b. Please provide a detailed breakdown for the forecasted expenses of \$0.281 million. Provide all supporting calculations, documentation, and explanations that show precisely how SDG&E derived each number.

SDG&E Response:

a. Periodic maintenance and repairs have been performed in the past to maximize the useful life of the school's training equipment. SDG&E has reached and in some cases exceeded the useful life of this equipment and need to update and replace accordingly. For example, currently, fault finding classes are using the same cable and old style hand-holes that do not have lids that are used in the field today.

Response to Question 27 (Continued)

b. Detailed breakdown provided below:

Various high-voltage equipment, underground cables,	and	the overh	ead	wiring
6-3316 Handhole Lids Replaced	\$	5,500		
6-3313 Spring Assist Lids	\$	5,200		
1500' 3-Phase 2/0 AL Cable	\$	15,000		
2000' #2 AL, 1 phase	\$	8,200		
6-25 KVA Single Phase Transformers	\$	11,000		
Subtotal			\$	44,900
Classroom Video Projectors				
Sharp PN-802B 80' Aquos Board (qty of 4 at \$13,795 each)		55,180		
Dedicated Laptop and software		8,000		
Subtotal			\$	63,180
Additional Tolls and Current Training Syste	em l	Jøgrades		
3 Chainsaws	\$	2,400		
40 Jelco Fall Restraints	\$	16,000		
3 A Frames for Wire Reels	\$	4,500		
Subtotal			\$	22,900
Flex Center Equipment (qty of 4 at \$2,000 each)	\$	8,000		
Mobile Data Terminals (qty of 8 at \$5,200 each)	\$	41,600		
Power Dolly (for training UG cable pulling)	\$	100,000		
Subtotal			\$	149,600
Total Aging Infrastructure			\$	280,580

Project Management:

28. In response to ORA-SDG&E-DR-002-EJ1 Q.2, SDG&E states: "Non-labor increases in later years were due to continued staff reduction via attrition and the growing need to outsource design work to contractors." SDG&E forecasts 13.1 FTEs for the test year, which is 9.4 FTEs greater than the 2013 recorded amount of 3.7 FTEs. Does SDG&E anticipate a reduction in contract work during the test year as a result of increased staff? If yes, please explain why non-labor costs are forecasted to increase in the test year. If no, please explain why not.

SDG&E Response:

No, SDG&E does not anticipate a reduction in contract work. Project Management has been historically responsible for the cost of contracted design services, regardless of which part of the Company solicited those services. To better align design contracting costs with those departments requiring design contracting services, responsibility for contracting costs were shifted to those respective departments. It is that shift of cost responsibility that reduces Project Management's contracting costs, not the additional FTEs. The additional FTEs are forecasted to address increases in workload.

- 29. In response to ORA-SDG&E-DR-002-EJ1 Q.3, SDG&E states: "With the exception of 2011 when Planners were acquired and a training class conducted, attrition and a growing restriction on back-filling positions resulted in a reduction of FTEs in each of the other four years."
 - a. Please elaborate on the "growing restriction on back-filling positions" and explain why SDG&E has waited until now to fill empty positions.
 - b. Does SDG&E conduct Planner training classes on a set schedule and how often are they conducted?
 - c. The number of FTEs and project management expenses returned to pre-2011 levels in 2012. Please explain why the additional planners acquired and the training class conducted in 2012 did not have a lasting effect on the number of staff positions filled and on resolving workforce attrition problems.

- a. SDG&E has the practice of deferring new hires until the need for them is urgent. SDG&E is in the process of rolling out a new Work Management and Design system for its Planners. Not wanting to train Planners on both the new and existing systems, SDG&E has tried to defer hiring (and training) within Project Management to the greatest extent possible until the new systems have been deployed and are functioning.
- b. Planner training classes are not conducted on a set schedule, but staffing levels are evaluated periodically as the business environment changes.
- c. Project Management lost personnel to Retirements, Resignations, and Promotions/Transfers to other departments. In 2011 there were 13 Planner departures, and in 2012 there were 6 Planner departures. There was no Planner training class conducted in 2012.

30. Explain why SDG&E does not anticipate the same problems with workforce attrition for the test year that it has experienced in historical years. Please identify all measures SDG&E has taken or will take to prevent workforce attrition.

SDG&E Response:

The Project Management Organization does not anticipate the same problems with workforce attrition for the test year that it has experienced in historical years due to the rapid increase in New Business related work that is following the improving economy. When New Business workload is lower, vacancies are not filled. Attrition may occur when planners retire, quit or take other jobs within the company elsewhere. When New Business workload picks up, there may be a lag in filling vacancies due to time needed to train and/or attract qualified planners.

31. On page 28 of SDG&E's testimony, SDG&E states: "It is Project Management's intent to acquire and train an additional 16 planners in 2016. As a result of anticipated attrition, Project Management expects to net only 3 additional planners per year from these class." Why does SDG&E expect to retain only 3 of 16 trained planners?

SDG&E Response:

SDG&E anticipates retaining all 16 Planners from the training class, but expects to lose a number of veteran Planners to attrition (retirement, promotion, etc.). The Project Management Organization has also historically provided to the training to all future Planners, regardless of where in the Company they are ultimately deployed. Not all Planners trained necessarily get assigned to Project Management. Also, please see the response for question 29c above.

32. SDG&E forecasts \$0.488 million for the project planner class. Please provide the exact calculations used to derive SDG&E's forecast of \$0.488 million.

Project Planner Class Estimated Costs		
Service Planner Training (7 students for 10 weeks at \$30/hr)	\$	89,040
Instructor (1 for 10 weeks at \$43/hr)	\$	17,200
Customer Project Planner Training (12 students for 17 weeks at \$33/hr)	\$	291,456
Instructor (1 for 7 weeks at \$43/hr)	\$	12,040
Senior Instructor (1 for 11 weeks at \$45/hr)	\$	19,800
Additional Instructor Costs (subject matter experts)	\$	11,630
Other Direct Costs (materials, mileage reimbursements, van rental, etc.)		47,095
Total	\$	488,261

33. In response to ORA-SDG&E-DR-002-EJ1 Q.14, SDG&E states: "The reassigned personnel costs are for employees returning from a previous assignment. A total of 9 employees, of which the O&M cost of total labor is 2%". Please identify under what category of management the costs for these employees were previously recorded. Show that embedded costs for these employees were removed from their previous category for SDG&E's TY 2016 forecast.

SDG&E Response:

These employees' previous assignments were under the Construction, Planning and Design (CPD) capital project. That project is completed and is not included in the electric distribution capital request for 2016, thus there are no embedded costs for these employees requested in 2016.
34. SDG&E forecasts \$0.252 million for "Personal Increase". Please provide the exact calculations used to derive SDG&E's forecast of \$0.252 million.

SDG&E Response:

The \$0.252 million should be for a "personnel increase", not a "personal increase". Calculated at average wage for each position and submitted at 19% O&M.

2 Staff Assistants	\$17,996
8 Project Management Assistants	\$69,584
12 Customer Project Planners	\$148,309
1 Service Planner	\$16,687
Total	\$252,576

Service Order Team:

35. Please explain in detail why costs decreased from \$0.373 million in 2010 to \$0.251 million in 2011. Provide all supporting documentation and calculations.

SDG&E Response:

The decrease in costs from 2010 and 2011 was primarily attributable to a decrease in non-labor expense, specifically purchased services and contracted labor. The decrease in non-labor costs was partially offset by an increase in direct labor costs. Customer work was taking a downward turn reducing expenditures. Use of materials (wire, connectors, etc.) was decreasing along with crew hours and overtime.

36. Please explain in detail why costs increased continually from \$0.251 million in 2011 to \$0.846 million in 2013. Provide all supporting documentation and calculations.

SDG&E Response:

The increase in costs from 2011 to 2013 was a combination of labor and non-labor increases. Labor costs increased between 2011 and 2013 primarily due to increased labor costs at the C&O Districts. There was an increase to work load (more crew work, materials, and overtime) along with solar jobs. This led to an increase in reconnecting of services to accommodate solar jobs. The Northeast C&O District went from using 1-standby lineman to 2-standby linemen per week to accommodate increasing underground work site checks.

Substation Construction and Maintenance:

37. Please explain why costs decreased continually from \$7.974 million in 2011 to \$5.896 million in 2013. Provide all supporting documentation and calculations.

SDG&E Response:

During the 2012 business year, the SCADA group, consisting of 19 employees, transferred from the Substation C&O group to System Protection as part of the department reorganization – see Question 38.

Additional reductions in employee overtime, meal allowances, tool and electrical equipment purchases are offset by increases in substation security measures and contract labor services.

System Protection:

38. Please explain why costs increased continually from \$0.744 million in 2011 to \$1.545 million in 2013. Provide all supporting documentation and calculations.

SDG&E Response:

During the 2012 business year, the SCADA group, consisting of 19 employees, transferred from the Substation C&O group to System Protection as part of the department reorganization.

Electric Distribution Operations:

39. Please explain in detail why costs decreased from \$10.297 million in 2009 to \$9.444 million in 2010. Provide all supporting documentation and calculations.

SDG&E Response:

For change in years 2009-2010: Labor increase of \$89k for 1.7FTE primarily due to covering shifts in the distribution operations control center. The non-labor decrease of \$943k is due to the lower spending of exempt materials, material items that are replenished as "truck stock". Exempt materials are discussed on page JTW-82, line 15-24. The allocation and distribution of this pool is located in the testimony of Mr. Jeff Stein, Exhibit SDG&E-41.

40. Please explain in detail why costs decreased from \$9.444 million in 2010 to \$8.430 million in 2011. Provide all supporting documentation and calculations.

SDG&E Response:

For change in years 2010-2011: Labor decrease of \$362k for 6FTE due to attrition of distribution control center operators. The non-labor decrease of \$651k is due to the lower spending of exempt materials.

41. Please explain in detail why costs increased from \$8.431 million in 2011 to \$11.531 million in 2012. Provide all supporting documentation and calculations.

SDG&E Response:

For change in years 2011-2012: Labor increase of \$649k for 3.3FTE due to hiring two meteorologists, training on a new GIS system, and covering shifts on overtime in the distribution operations control center. The non-labor increase of \$2.451M is due to higher spending of exempt materials.

42. Please explain in detail why costs decreased from \$11.531 million in 2012 to \$10.938 million in 2013. Provide all supporting documentation and calculations.

SDG&E Response:

For change in years 2012-2013: Labor increase of \$623k for 8.2FTE due to an apprentice class that started February 1, 2013 which is 77.5% Distribution O&M. Also, a Software Architect, a Manager of major projects, and an operations training supervisor were hired. In addition, a new group, Business Solutions and Training, was formed from employees coming off capital projects. Only the Distribution O&M part of their labor (30%) is included in the totals. The non-labor decrease of \$1.216M is due to lower spending of exempt materials.

Distribution Operations/Enterprise Geographic Information System Standards (EGISS):

43. On page 44, SDG&E states: "For non-labor, the 5-year linear method is appropriate to use, because it is the only forecast method that shows the incremental trend of the GIS software maintenance contract." Please explain and elaborate on the incremental trend of the GIS software maintenance contract.

SDG&E Response:

The incremental trend of the GIS software maintenance contract is driven by an increased amount of equipment in the field, thereby creating a need for more data points to be mapped.

Kearny Operations Services:

- 44. In response to ORA-SDG&E-DR-002-EJ1 Q.26, SDG&E states: "SDG&E's request of \$261k represents the transfer of employees into the Kearny Operations Services group during the period of 2013 and 2014. It also reflects a shift in charging allocations from Refundable to O&M due to that transfer."
 - a. From which category of management or which account were the employees transferred? Show that embedded costs for these employees were removed from their previous category or account for SDG&E's TY 2016 forecast.
 - b. Please elaborate on the statement that "it also reflects a shift in charging allocations from Refundable to O&M due to that transfer."

SDG&E Response:

- Nine (9) exempt employees with a limited emphasis on GRC-related expenses were transferred from Substation C&O into Kearny Operations Services – see Question #37.
- b. Substation and transmission line maintenance compliance monitoring support by this organization will be split between Refundable (transmission) and O&M (distribution) as appropriate.

Construction Services:

45. On page 50, SDG&E lists fire risk mitigation as a cost driver. Has SDG&E seen an increase in recorded costs in recent years due to fire risk mitigation? If yes, please show how this trend is reflected in historical expenses.

SDG&E Response:

As represented in the table below in response to question 46b, and consistent with testimony, both the number of red flag events and the number of red flag hours has increased significantly over recent years. These events carry with them a significant financial impact. During each of these extreme fire risk events, SDG&E incurs additional costs associated with patrolling lines for safety and deploying additional fire prevention/suppression crews to work alongside line crews. In particular, SDG&E's fire program has seen a steady increase in spend, from \$802k in 2010 to \$1.055M in 2013. In 2014, the fire program spent \$1.388M while providing additional firefighting helicopters, as well as ground personnel. Furthermore, as a result of the increased fire risk, in 2014 SDG&E launched a new and ongoing Fire and Risk Mitigation program (capital projects 13247 and 14247) in an effort to further strengthen SDG&E infrastructure. This work carries with it significant associated O&M costs which are expected to continue for multiple years in conjunction with the program.

- 46. In response to ORA-SDG&E-DR-002-EJ1 Q.27, SDG&E states: "The \$252k increase represents an additional two weeks of contracted services for an expanded fire season (\$122k) plus the cost of deployment for five additional red flag events at \$26k per event (\$130k)."
 - a. Provide all data used and studies conducted that support SDG&E's need for an expanded fire season and five additional red flag events.
 - b. Please provide the annual number of red flag events for historical years (2009-2013).

SDG&E Response:

a. Consistent with the direct testimony of Jonathan Woldemariam (SDG&E-10), and as illustrated in the table below, both the number and duration of red flag events has increased in recent years. In addition, these red flag events are now taking place outside of the "typical" fire season (September through November). For example, in 2014, declared red flag events took place in January, March, April, and May. This is further evidenced by the Drought State of Emergency that Governor Brown declared on January 17th, 2014 as a result of the ongoing drought conditions. SDG&E will continue to take the necessary steps to mitigate fire risk and ensure safe operation of the electric system into the future.

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	Number of RFW	Number of RFW	
Year	Events	Hours	Drought
2010	2	33.2	None
2011	4	94.8	None
2012	5	139.5	Abnormally Dry
2013	5	170	Severe
2014	8	473.2	Exceptional

In addition, there were 3 red flag events in 2009.