Company: San Diego Gas & Electric Company (U902M)
Proceeding: 2016 General Rate Case
Application: A.14-11-___
Exhibit: SDG&E-13

SDG&E

DIRECT TESTIMONY OF SARA A. FRANKE

(CUSTOMER SERVICES FIELD)

November 2014

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

SDGE
A Sempra Energy utility®

TABLE OF CONTENTS

I. INTRODUCTION 1
A. Summary of Costs 1
1. Operations and Maintenance Costs 1
2. Capital Costs 1
B. Summary of Activities 2
C. Support for SDG&E's Goals of Safe, Reliable and Efficient Service 2
D. Support To/From Other Witnesses 3
II. NON-SHARED COSTS 3
A. Introduction 3
B. CSF Operations 4
1. Description of Costs and Underlying Activities 4
2. Forecast Method 5
3. Cost Drivers 12
4. Continuous Improvement Efforts 14
5. Proposed Service Enhancements 14
6. Incremental Field Technician Training 16
7. New MDT Wireless Network Access Fees 16
8. Summary of CSF Operations Costs 16
C. CSF Supervision 18
1. Description of Costs and Underlying Activities 18
2. Forecast Method 18
3. Cost Drivers 19
D. CSF Dispatch 19
1. Description of Costs and Underlying Assumptions 19
2. Forecast Method 19
3. Cost Drivers 20
E. CSF Support 20
1. Description of Costs and Underlying Activities 20
2. Forecast Method 20
3. Cost Drivers 21
4. Proposed Incremental Funding 21
5. Summary of CSF Support Costs 21
III. CAPITAL 22

IV. SDG&E RESPONSE TIMES FOR PRIORITY 1 GAS LEAK ORDERS..... 23
V. CONCLUSION 25
VI. WITNESS QUALIFICATIONS..... 26

LIST OF APPENDICIES

APPENDIX A – Glossary of Acronymns A-1

APPENDIX B – Customer Services Field Adjustments to 2013-Recorded Costs..... B-1

APPENDIX C – Illustrative Examples of Work Order Volume Forecasts by Individual Order Type..... C-1

APPENDIX D – Pest Control Operators of California Forecasted Growth In Fumigation Work..... D-1

APPENDIX E – Report Prepared by INRIX, Inc. Regarding Traffic Congestion in Southern California..... E-1

APPENDIX F – SDG&E Response Time Performance for All P1 and P2 Orders..... F-1

APPENDIX G – SDG&E Response to ORA Informal DR-05, Question 4..... G-1

SUMMARY

CUSTOMER SERVICES FIELD – O&M COSTS			
Shown in Thousands of 2013 Dollars	**2013 Adjusted-Recorded**	**TY2016 Estimated**	**Change**
Total Non-Shared	22,990	22,135	-855
Total Shared Services (Incurred)	0	0	0
Total O&M	**22,990**	**22,135**	**-855**

CUSTOMER SERVICES FIELD – CAPITAL COSTS			
Shown in Thousands of 2013 Dollars	**2014**	**2015**	**2016**
SORT MDT Refresh	121	0	0

Summary of Requests

- For Test Year ("TY") 2016, San Diego Gas & Electric Company ("SDG&E" or the "company") requests $22.135 million (a decrease of $0.855 million from 2013 adjusted-recorded costs) for Customer Services Field ("CSF") operations in order to complete customer- and company-generated work orders, including investigating reports of gas leaks and responding to other emergencies, establishing/terminating utility service, conducting customer appliance checks, shutting off and restoring gas service for fumigation, performing meter and regulator changes and other related services at customer premises. SDG&E's request includes the following:
  - CSF work order volume forecasts that reflect the full effect of Smart Meter implementation, as well as projected customer growth;
  - Proposed incremental funding for enhanced customer education while on customer premises and new, proactive, outreach gas appliance safety checks for customers who have not utilized SDG&E's CSF services for extended periods of time;
  - Proposed incremental funding to update/modernize existing training for CSF field technicians, as well as conduct more frequent Operator Qualification ("OpQual") training;
  - A reduction in field collections work resulting from mailing rather than hand delivering initial collection notices to customers who are delinquent in paying their SDG&E bills; and
  - Other efficiency improvements that are in the process of being implemented.
- The requested funding supports SDG&E's goal of providing safe, reliable and efficient gas and electric service to customers.

SDG&E DIRECT TESTIMONY OF SARA A. FRANKE
(CUSTOMER SERVICES FIELD)

I. INTRODUCTION

A. Summary of Costs

1. Operations and Maintenance Costs

I sponsor the TY 2016 forecasts for operations and maintenance ("O&M") costs, for both non-shared and shared services, for SDG&E Customer Services Field ("CSF") operations. Table SAF-1 below summarizes my sponsored costs.

TABLE SAF-1

TY 2016 Summary of Total O&M Costs

CUSTOMER SERVICES FIELD			
Shown in Thousands of 2013 Dollars	**2013 Adjusted-Recorded**	**TY2016 Estimated**	**Change**
Total Non-Shared	22,990	22,135	-855
Total Shared Services (Incurred)	0	0	0
Total O&M	**22,990**	**22,135**	**-855**

2. Capital Costs

Capital costs for the forecast years 2014, 2015 and 2016, for information technology systems that support CSF operations (summarized in Table SAF-2 below), are sponsored by SDG&E witness Stephen Mikovits, Ex. SDG&E-19. However, I will cover in my testimony the operating needs for these costs.

TABLE SAF-2

TY 2016 Summary of Total Capital Costs

CUSTOMER SERVICES FIELD			
Shown in Thousands of 2013 Dollars	**2014**	**2015**	**2016**
SORT[1] MDT[2] Refresh	121	0	0

Capital costs for gas meters, regulators, tools and equipment required for CSF operations are covered in Witness Frank Ayala's testimony, Ex. SDG&E-04. Capital costs for electric meters and other electrical equipment used for CSF operations are covered in the testimony of SDG&E witness John Jenkins, Ex. SDG&E-09.

[1] SORT, or Service Order Routing Tool, is the system used by SDG&E to manage CSF work orders.
[2] MDT, or mobile data terminal, is the related computer each CSF field employee uses to receive and track work orders assigned to them for completion in the field.

B. Summary of Activities

CSF consists primarily of field technicians who perform services at customer premises, including gas and electric meter work, establishing and terminating gas and electric service, lighting gas pilot lights, conducting customer appliance checks, investigating reports of gas leaks, investigating customer complaints of high bills, shutting off and restoring gas service for fumigation, responding to structure fires (e.g., to check for gas leakage/shut off gas service) and other emergency incidents, and other related field services for customers. Field technicians work from five different operating base locations that are dispersed throughout SDG&E's service territory, which spans more than 4,100 square miles from the California-Mexico border to southern Orange County.

C. Support for SDG&E's Goals of Safe, Reliable and Efficient Service

My cost forecasts support the company's goal of providing safe, reliable and efficient gas and electric service to customers, as well as complying with all federal and state regulations. The CSF cost forecasts also support SDG&E's focus on continuous improvement not only from a safety perspective, but from both cost efficiency and customer experience perspectives as well.

All requested O&M and capital expenses are described in detail in the remaining sections of my testimony, which include the following:

- Section I summarizes requested O&M and capital expenses for CSF services provided on customer premises;
- Section II describes *non-shared* CSF expenses, including the forecasting methodology for each cost grouping as well as continuous improvement efforts. (SDG&E CSF does not provide any shared CSF services.);
- Section III provides a description of the SORT MDT refresh capital project and the respective business purpose;
- Section IV reports on SDG&E's Priority 1 gas leak order response times pursuant to the Commission's directive in SDG&E's last general rate case ("GRC") proceeding, Decision ("D.") 13-05-010;
- Section V provides a conclusion; and
- Section VI provides my witness qualifications.
- Appendices A-G contain: (A) a glossary of acronyms used in my testimony; (B) an explanation of all adjustments to 2013 recorded costs; (C) illustrative examples of comparison graphs of historical versus forecasted service order

volumes by individual order type[3]; (D) supporting information regarding the Pest Control Operators of California's ("PCOC") forecast of growth in fumigation work in 2014; (E) a southern California traffic congestion report, prepared by INRIX, Inc., that substantiates forecasting assumptions for "drive time" (the time it takes to travel to customer premises to complete service orders); (F) SDG&E's response time performance for all emergency orders; and (G) SDG&E's response to ORA Informal DR-05 question 4.

D. Support To/From Other Witnesses

The CSF costs set forth in my testimony are impacted by gas and electric meter counts and projected meter growth. Forecasted gas meter growth is covered in the testimony of SDG&E witness Rose-Marie Payan, Ex. SDG&E-32. Forecasted electric meter growth is covered in the testimony of SDG&E witness Ken Schiermeyer, Ex. SDG&E-31. CSF labor costs associated with providing Operator Qualification ("OpQual") training and certification for the CSF workforce are included in the O&M costs set forth in my testimony; however, the basis and rationale for these forecasted costs are contained in the testimony of SDG&E witness Frank Ayala, Ex. SDG&E-04. Information Technology ("IT") costs for technology that supports CSF operations is covered in the testimony of SDG&E witness Stephen Mikovits, Ex. SDG&E-19. Compensation and benefit costs associated with the CSF workforce are covered in the testimony of SDG&E witness Debbie Robinson, Ex. SDG&E-22. CSF-related miscellaneous revenues, including the basis for the forecasted revenues and the projected revenues, are covered in the testimony of SDG&E witness Michelle Somerville, Ex. SDG&E-34. CSF costs to achieve applicable miscellaneous revenues are embedded as a subset of historical and forecast CSF costs covered in my testimony. Lastly, some of the costs associated with two new CSF services proposed in my testimony and a CSF collections efficiency improvement that is being implemented are contained in the testimony of SDG&E witness Brad Baugh, Ex. SDG&E-14.

II. NON-SHARED COSTS

A. Introduction

On an annual basis, SDG&E estimates field technicians will complete over 300,000 work orders at customer premises. Table SAF-3 below summarizes the total non-shared O&M forecast for CSF, which includes the forecasted cost of field technicians and collectors, as well as costs for other supporting activities required to enable CSF services to customers.

[3] A full set of such graphs, for all order types, is provided in the workpapers accompanying my testimony, Ex. SDG&E-13-WP.

TABLE SAF-3

Non-Shared O&M Summary of Costs by CSF Cost Category

CUSTOMER SERVICES FIELD **Shown in Thousands of 2013 Dollars**			
Cost Category	**2013 Adjusted-Recorded**	**TY2016 Estimated**	**Change**
Customer Services Field - Operations	15,678	14,675	-1,003
Customer Services Field - Supervision	1,491	1,484	-7
Customer Services Field - Dispatch	2,973	3,002	29
Customer Services Field - Support	2,848	2,974	126
Total	**22,990**	**22,135**	**-855**

Explanations for all adjustments to 2013 recorded costs are provided in Appendix B and in the workpapers supporting this testimony, Ex. SDG&E-13-WP.

B. CSF Operations

1. Description of Costs and Underlying Activities

The CSF Operations cost category consists of labor and non-labor expenses for field technicians who provide service at customer premises, including both customer- and company-generated work orders. Examples of customer-generated service orders include requests to establish/remove gas and electric service, light gas pilots, check gas appliances, shut off and restore gas service for fumigation, investigate the cause of high bills, respond to emergency incidents (e.g., structure fires), investigate potential gas leaks, and other services. Examples of company-generated work orders include performing meter and regulator changes and other meter work to maintain company assets, and collecting customer payments for delinquent bills, the latter of which is typically performed by field collectors. Non-labor costs include items such as company uniforms and laundry expense, and materials used on the job. Table SAF-4 summarizes total labor and non-labor expenses requested for the CSF Operations cost category.

TABLE SAF-4

Non-Shared O&M Summary for CSF Operations Cost Category

CSF Operations			
Shown in Thousands of 2013 Dollars	**2013 Adjusted-Recorded**	**TY2016 Estimated**	**Change**
Labor	14,514	13,777	-737
Non-Labor	1,164	898	-266
Total	**15,678**	**14,675**	**-1,003**

As reflected in both Tables SAF-3 and SAF-4 above, SDG&E anticipates a $1.003 million reduction in costs for this cost category.

2. Forecast Method

CSF Operations costs are primarily driven by work order volumes. Work order volumes, in turn, are largely driven by factors outside of SDG&E's control, such as customer growth, weather, the state of the economy, customer turnover, the level of natural gas and electricity prices, customer appliance/equipment choices, emergency incidents such as structure fires, and laws/regulations. In order to forecast TY 2016 expenses as accurately and transparently as possible, a team of CSF staff members developed an order volume forecast for each individual order type, taking into consideration key variables that influence order volumes. Where customer demand for services is driven by factors outside SDG&E's control, the order volume forecasts are based on historical averages of sufficient length to capture the cyclical conditions because variables influencing order volumes vary from year to year. For order types impacted by specific laws or regulations, the order volume forecasts take into account the timing and expected impacts. In all cases, if an order type is impacted by SDG&E's Smart Meter implementation, the forecast for the individual work order type uses base year 2013 order volumes because 2013 was the first year in which the full effects of Smart Meter implementation are reflected in work order volumes.

Table SAF-5 below provides a summary of the forecasting methodology used for each order type, the associated rationale, and reasons why alternative forecasting methods would not be appropriate. Order types are listed in alphabetical order. A description of each order type and graphs showing actual historical order volumes compared to prior GRC order volume forecasts, by order type, are provided in the workpapers supporting my testimony, Ex. SDG&E-13-WP.[4]

TABLE SAF-5

Forecasting Methodology by CSF Order Type

Order Type	Forecasting Methodology	Rationale	Reasons an Alternative Forecasting Method Would Not Be Appropriate
Change of Account - Electric Change of Account – Gas Change of Account – Gas and Electric Change of Account - Give Notice Change of Account – Return to Owner Collections – Credit Shutoff	Base year 2013 (orders to active meters)[5]	These six order types were impacted by Smart Meter. 2013 is the first full year post Smart Meter implementation.	Other forecast methods would ignore and/or not properly account for the effects of Smart Meter.
Collections – First Call Collections – Second Call Collections – Third Call	Zero-based	SDG&E re-designed the manner in which collections orders are handled, with implementation beginning in 2014.	Any other forecast method would ignore and/or not properly account for the effects of the redesigned collections process.
Customer Service Order ("CSO") – Appliance Adjustments CSO – Appliance Mechanic Work	5-year average (orders to active meters)	Volumes fluctuate from year to year and are impacted by external factors outside the company's control, e.g., the economy, customers' appliance and equipment choices and condition, and weather and associated requests to check space heating equipment.	Use of shorter time periods would not provide a sufficient length of time to capture a variety of conditions which change from year to year and cause order volumes to fluctuate from year to year.
CSO – Carbon Monoxide Emergency CSO – Carbon Monoxide ("CO") Non-Emergency	Base year 2013 (orders to active meters)	2013 reflects the most recent experience since Senate Bill ("SB") 183 was enacted with the requirement to install CO detectors in residential dwellings.[6]	Use of an alternative forecast would ignore SB 183 and the resulting upward trend in order volumes.
CSO – High Pressure CSO – No Gas CSO – Other Miscellaneous Gas & Electric Requests CSO – School Leak Surveys CSO – Seasonal Off CSO – Seasonal On Multiples CSO – Seasonal On Singles	5-year average (orders to active meters)	Volumes fluctuate from year to year and are impacted by external factors outside the company's control, e.g., weather fluctuations, conditions which may cause a customer to be without gas, and school maintenance schedules.	Use of shorter time periods would not provide a sufficient length of time to capture a variety of conditions which change from year to year and cause order volumes to fluctuate from year to year.
Fumigation – Fumigation/Bug Fogger	Base year 2013 plus 5% growth in 2014 (orders to active meters)	Pest Control Operators of California ("PCOC") projects 5% growth in fumigation in 2014 for San Diego County.	Use of an alternate forecast method would ignore actual volume trends and expert predictions.

[4] Illustrative examples of the graphs are provided in Appendix C of this testimony.

[5] Note that the Change of Account-Give Notice order type includes an anticipated reduction in fielded orders as a result of the "Off But Registering" project described in the testimony of SDG&E witness Brad Baugh, Ex. SDG&E-14.

[6] SB 183, effective January 1, 2011 for new construction, requires customers to install CO detectors in all inhabited residences. The effective date of SB 183 is July 1, 2011 for existing single family dwellings and January 1, 2013 for multi-family dwellings and buildings such as apartments and hotels.

Gas Leak – Emergency - Broken & Blowing Inside	5-year average (orders to active meters)	Volumes fluctuate from year to year and are impacted by external factors that are outside the company's control, e.g., condition of customers' gas lines, construction activity/hit lines, structure fires.	Use of shorter time periods would not provide a sufficient length of time to capture a variety of conditions which change from year to year and cause order volumes to fluctuate from year to year.
Gas Leak – Emergency - Broken & Blowing Outside			
Gas Leak – Emergency –Agency Requests			
Gas Leak – Fire & Explosions			
Gas Leak – Hazardous	3-year average (orders to active meters)	In 2010, SDG&E reclassified leak orders, resulting in a shift of some orders from non-hazardous to hazardous. 2009 and 2010 were excluded to eliminate the effects of the reclassification of orders.	Use of a longer forecast period would not take into account the 2010 reclassification of gas leak orders. Use of a shorter time period would not provide a sufficient length of time to capture a variety of conditions which change from year to year and cause order volumes to fluctuate from year to year.
Gas Leak – Non-Hazardous			
High Bill Investigation ("HBI")	Base year 2013 (orders to active meters)	This order type is impacted by Smart Meter. 2013 is the first full year post Smart Meter implementation.	Any other forecast method would ignore and/or not properly account for the effects of Smart Meter.
Meter Work – Capital – Header Work	Follows capital forecast and growth in new meter set work completed by CSF	Volumes are driven by the forecasted growth in new business capital construction and associated meter sets.	Use of an alternative forecast method would likely understate anticipated growth in new meter sets.
Meter Work – Capital – Meter Sets – Electric	5-year average (orders to active meters)	Volumes fluctuate from year to year and are impacted by external factors that are outside the company's control, e.g., the state of the economy and construction activity.	Use of shorter time periods would not provide a sufficient length of time to capture a variety of conditions which change from year to year and cause order volumes to fluctuate from year to year.
Meter Work – Capital – Meter Sets – Gas	Follows capital forecast and growth in new meter set work completed by CSF	Volumes are driven by the forecasted growth in new business capital construction and associated meter sets.	Use of an alternative forecast method would likely understate anticipated growth in new meter sets.
Meter Work - O&M – Atmospheric Corrosion	5-year average (orders to active meters)	Volumes fluctuate from year to year and are impacted by external factors outside the company's control, e.g., corrosion or other abnormal operating conditions found during above-ground meter inspections[7] or during the course of performing other work at the meter.	Use of shorter time periods would not provide a sufficient length of time to capture a variety of conditions which change from year to year and cause order volumes to fluctuate from year to year.
Meter Work – O&M - Curb	3-year average (orders to active meters)	CSF technicians' complete Department of Transportation ("DOT")-required curb meter inspections on a three-year cycle.[8]	Use of an alternative forecast method would not be consistent with the three-year inspection cycle for curb meters.
Meter Work - O&M – Customer/Company Change - Electric	5-year average (orders to active meters)	Volumes fluctuate from year to year and are impacted by external factors outside the company's control, e.g., damages or changes in customers' meter requirements.	Use of shorter time periods would not provide a sufficient length of time to capture a variety of conditions which change from year to year and cause order volumes to fluctuate from year to year.
Meter Work - O&M – Customer/Company Change - Gas	5-year average (orders to active meters)	Volumes fluctuate from year to year and are impacted by external factors outside the company's control, e.g., damages or changes in customers' meter requirements.	Use of shorter time periods would not provide a sufficient length of time to capture a variety of conditions which change from year to year and cause order volumes to fluctuate from year to year.

[7] DOT-required inspections of above-ground meters are performed by pipeline patrollers who are part of the Gas Technical Services department. (See the testimony of SDG&E witness Frank Ayala, Ex. SDG&E-4.) Follow-up work to address atmospheric corrosion and/or other abnormal operating conditions found at a meter set assembly ("MSA"), whether identified as part of a scheduled inspection or otherwise, is performed by CSF technicians.

[8] DOT-required curb meter inspections and associated follow-up work to address atmospheric corrosion or other abnormal operating conditions are performed by CSF technicians.

Meter Work - O&M – Customer/Company Test (Change) – Gas	5-year average (orders to active meters) adjusted to remove replacement based solely on age	Used a 5-year average to reflect the fact that volumes have historically fluctuated from year to year. Meters planned for removal based strictly on age (i.e., >35 years old) were removed from the forecast, as this "age-only" selection criteria has been removed from SDG&E's Meter Performance Control Program.	Other methods would likely overstate projected order volumes.
Meter Work - O&M – Miscellaneous Company Work	Base year 2013 (orders to active meters)	This order type was impacted by Smart Meter. 2013 is the first full year post Smart Meter implementation.	Other forecast methods would ignore and/or not properly account for the effects of Smart Meter.
Meter Work - O&M – Periodic Test/Change – Gas	5-year average (orders to active meters)	Volumes fluctuate from year to year based on the number of samples needed to validate the accuracy of meter families.	Use of shorter time periods would not provide a sufficient length of time to capture a variety of conditions which change from year to year and cause order volumes to fluctuate from year to year.
Non-pay Turn On	Base year 2013 (orders to active meters)	These two order types were impacted by Smart Meter. 2013 is the first full year post Smart Meter implementation.	Other forecast methods would ignore and/or not properly account for the effects of Smart Meter.
Read/Verify – Re-Read			
Turn On/Shut Off – Customer/Company Remove/Reset – Electric	5-year average (orders to active meters)	Volumes fluctuate from year to year and are impacted by external factors outside the company's control, e.g., the state of the economy and customer turnover.	Use of shorter time periods would not provide a sufficient length of time to capture a variety of conditions which change from year to year and cause order volumes to fluctuate from year to year.
Turn On/Shut Off - Customer/Company Remove/Reset – Gas			
Turn On/Shut Off – Give Notice Cut	Base year 2013 (orders to active meters), adjusted for anticipated reduction in orders[9]	This order type was impacted by Smart Meter, and 2013 is the first full year post Smart Meter implementation.	Other forecast methods would not properly account for the effects of Smart Meter and additional reductions that are anticipated for this order type.
Turn On/Shut Off – Shut Off Electric	Base year 2013 (orders to active meters)	These order types were impacted by Smart Meter. 2013 is the first full year post Smart Meter implementation.	Other forecast methods would ignore and/or not properly account for the effects of Smart Meter.
Turn On/Shut Off – Shut Off Gas			
Turn On/Shut Off – Shut Off Gas & Electric			
Turn On/Shut Off – Shut Off in Error			
Turn On/Shut Off - Soft Shut Off Gas Electric			
Turn On/Shut Off – Soft Turn On Gas Turn On Electric			
Turn On/Shut Off – Turn On Electric			
Turn On/Shut Off – Turn On Gas & Electric			
Turn On/Shut Off – Turn On Gas			
Miscellaneous – Houseline Test/Purge – O&M	4-year average (orders to active meters)	Volumes fluctuate from year to year and are impacted by external factors outside the company's control, e.g., the condition of a customer's houseline. Excluded 2009 given that new procedures were implemented which, in turn, impacted order volumes.	Use of shorter time periods would not provide a sufficient length of time to capture a variety of conditions which change from year to year and cause order volumes to fluctuate from year to year.
Miscellaneous – Houseline Test/Purge – Capital			

[9] A reduction in fielded orders is anticipated as a result of the "Off But Registering" project described in the testimony of SDG&E witness Brad Baugh , Ex. SDG&E-14.

Miscellaneous – Smart Meter	Base year 2013 (orders to active meters), adjusted to remove non-recurring Smart Meter deployment orders	This order type was created to account for Smart Meter work. 2013 is the first full year post Smart Meter implementation.	Other forecast methods would ignore and/or not properly account for the effects of Smart Meter.
Incomplete	Base year 2013 (orders to active meters)	This order type was impacted by Smart Meter. 2013 is the first full year post Smart Meter implementation.	Other forecast methods would ignore and/or not properly account for the effects of Smart Meter.

As explained in the testimony of SDG&E witness Rose-Marie Payan (Ex. SDG&E-32), SDG&E gas meter growth is expected to increase by a total of 3.5% from 2013 - 2016, to approximately 891,506 meters in 2016. As explained in the testimony of SDG&E witness Ken Schiermeyer (Ex. SDG&E-31), the number of electric meters is expected to grow by 2.9%, to approximately 1.45 million electric meters in 2016. In almost all cases, CSF work order volumes are forecasted on a number-of-orders-per-active meter basis, by order type. The TY 2016 forecasted order volumes for each order type are the product of the forecasted number of orders per meter and the number of forecasted meters in 2016.

Table SAF-6 below provides historical and projected CSF work order volumes, using the forecast method outlined above for each order type. Certain types of Collections orders (i.e., First, Second and Third Call Collections orders) are excluded from the TY 2016 forecasted volumes shown below because a separate, zero-based forecast methodology was used for those order types. The forecast methodology for First, Second and Third Call Collections orders is discussed further below.

TABLE SAF-6[10]

CSF Order Volume Forecast

Number of Active Gas Meters	842,442	847,305	852,135	856,440	861,573	868,851	879,130	891,506
Number of Active Electric Meters	1,375,326	1,382,924	1,390,704	1,397,678	1,405,218	1,414,346	1,428,204	1,445,387
Total Meters	2,217,768	2,230,229	2,242,839	2,254,118	2,266,791	2,283,198	2,307,334	2,336,893
	Historical Order Volumes					**Forecast Order Volumes**		
Order Type	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
Change of Account - Electric	50,294	38,665	9,749	1,672	603	609	614	620
Change of Account – Gas	392	402	3,099	1,631	1,282	1,297	1,312	1,327
Change of Account - Gas and Electric	59,875	40,409	4,145	697	422	426	431	435
Change of Account - Give Notice	9,183	8,922	7,921	7,136	6,902	6,952	6,751	6,566
Change of Account - Return to Owner	104,720	68,884	9,577	2,389	658	665	672	678
Collections - Credit Shutoff	3,661	4,334	2,937	2,274	1,707	1,725	1,742	1,760
Collections - First Call	317,500	321,415	313,453	274,409	278,656	The forecast for these order types is discussed further below.		
Collections - Second Call	40,314	38,982	35,941	33,783	8,054			
Collections - Third Call	14,130	11,145	13,474	14,815	2,573			
Customer Service Order ("CSO") - Appliance Adjustments	42,027	43,209	43,302	39,678	35,456	37,853	40,249	42,646
CSO - Appliance Mechanic Work	751	719	851	816	851	845	840	834

[10] Numbers may not add due to rounding.

CSO - Carbon Monoxide Emergency	785	923	1,013	891	973	983	993	1,003
CSO - Carbon Monoxide Non-Emergency	1,409	1,328	1,506	1,392	1,658	1,675	1,692	1,709
CSO - High Pressure	170	152	204	172	167	172	176	181
CSO - No Gas	9,504	10,447	14,273	12,768	13,913	13,520	13,127	12,734
CSO – Other Miscellaneous Gas & Electric Requests	10,864	11,059	12,526	10,960	11,924	11,932	11,940	11,948
CSO - School Leak Surveys	457	464	399	471	418	433	448	462
CSO - Seasonal Off	811	639	541	642	821	788	756	723
CSO - Seasonal On Multiples	10,893	10,373	11,726	9,951	8,339	9,139	9,939	10,739
CSO - Seasonal On Singles	29,012	26,862	24,102	19,982	22,370	23,455	24,540	25,626
Fumigation - Fumigation/Bug Fogger	42,379	39,361	41,268	40,597	43,376	45,545	46,084	46,732
Gas Leak - Emergency - Broken & Blowing Inside	1,176	1,236	1,195	1,154	1,258	1,259	1,259	1,260
Gas Leak - Emergency - Broken & Blowing Outside	232	218	176	185	249	240	231	222
Gas Leak - Emergency –Agency Requests	452	489	452	452	548	532	516	501
Gas Leak - Fire & Explosions	29	22	19	35	29	29	28	28
Gas Leak – Hazardous	3,039	11,974	28,332	25,246	21,813	23,263	24,714	26,164
Gas Leak - Non-Hazardous	30,006	22,434	5,112	4,147	3,747	4,003	4,258	4,514
High Bill Investigation ("HBI")	637	614	590	437	438	443	447	452
Meter Work - Capital - Header Work	532	312	530	322	411	557	758	988
Meter Work - Capital - Meter Sets – Electric	478	147	37	923	756	666	576	485
Meter Work - Capital - Meter Sets – Gas	4,742	3,857	4,366	4,716	4,452	5,880	8,002	10,438
Meter Work - O&M - Atmospheric Corrosion	134	150	117	55	83	93	103	113
Meter Work - O&M – Curb	571	398	960	615	420	452	484	516
Meter Work - O&M - Customer/Company Change - Electric	20	93	127	72	249	205	160	116
Meter Work - O&M - Customer/Company Change - Gas	2,025	1,749	1,708	2,031	1,991	1,990	1,990	1,989
Meter Work - O&M - Customer/Company Test (Change) - Gas[11]	9,918	12,349	7,703	7,267	5,488	70	71	72
Meter Work - O&M - Miscellaneous Company Work	11,279	11,945	10,854	14,867	15,040	15,214	15,388	15,563
Meter Work - O&M - Periodic Test/Change – Gas	8,758	7,636	11,301	12,640	13,232	12,553	11,874	11,195
Non-pay Turn On	18,335	16,465	16,832	17,556	2,937	2,967	2,998	3,028
Read/Verify - Re-Read	42,225	25,082	14,400	11,470	7,788	7,868	7,949	8,029
Turn On/Shut Off - Customer/Company Remove/Reset – Electric	25	23	23	35	19	21	24	26
Turn On/Shut Off - Customer/Company Remove/Reset – Gas	537	198	242	265	233	258	284	309
Turn On/Shut Off - Give Notice Cut	12,464	11,108	6,167	4,165	3,665	3,692	2,673	1,662
Turn On/Shut Off - Shut Off Electric	24,670	20,734	9,069	4,966	4,423	4,465	4,507	4,549
Turn On/Shut Off - Shut Off Gas	6,482	5,946	7,659	8,863	7,896	7,987	8,079	8,170
Turn On/Shut Off - Shut Off Gas & Electric	2,436	1,751	846	746	629	635	642	648
Turn On/Shut Off - Shut Off in Error	761	514	477	442	238	240	243	245
Turn On/Shut Off - Soft Shut Off Gas Electric	39,627	34,485	28,728	25,165	21,063	21,280	21,497	21,714
Turn On/Shut Off - Soft Turn On Gas Turn On Electric	27,212	24,132	4,005	225	174	176	178	179
Turn On/Shut Off - Turn On Electric	28,211	25,850	17,615	9,196	6,250	6,310	6,369	6,429
Turn On/Shut Off - Turn On Gas & Electric	15,263	13,255	5,674	2,976	1,394	1,408	1,423	1,437
Turn On/Shut Off - Turn On Gas	2,125	1,825	7,540	9,609	9,219	9,326	9,433	9,539

[11] Forecast assumes gas meters older than 35 years are no longer targeted for replacement based solely on age if they have not yet failed.

Miscellaneous - Houseline Test/Purge - O&M	257	322	332	331	370	364	359	353
Miscellaneous - Houseline Test/Purge – Capital	166	291	347	276	310	313	316	319
Miscellaneous - Smart Meter	10,073	23,299	20,024	12,150	6,732	6,601	6,471	6,340
Incomplete (excluding First, Second and Third Call Collections orders)	43,862	44,570	38,787	28,940	24,069	24,243	24,499	24,813
TOTAL (excluding First, Second and Third Call Collections orders)	**725,946**	**632,625**	**441,485**	**366,659**	**319,453**	**316,203**	**321,456**	**326,901**

As reflected in the graphs provided in the individual order forecast workpapers (Ex. SDG&E-13-WP),[12] there is a good deal of variability in historical actual versus forecast order volumes; sometimes actual volumes are higher than forecasted order volumes and other times they are lower. I believe SDG&E's estimates of TY 2016 CSF work order volumes are reasonable and represent a normal year of CSF activity (post Smart Meter deployment).

With respect to the forecast methodology for "First", "Second" and "Third" Call Collections orders, SDG&E used a zero-based forecast in order to reflect process changes that are currently being implemented. With the exception of notices for vulnerable customers,[13] beginning in 2014, SDG&E will no longer send a field collector to customer premises to deliver the first collection notice when a customer's payment becomes past due.[14] Instead, SDG&E will mail the first notice to the customer. Printing and postage costs for mailing the first collection notice to customers who are late on their payments are contained in the testimony of SDG&E witness Brad Baugh, Ex. SDG&E-14. In addition, SDG&E will remotely disconnect electric service for residential customers, when appropriate, rather than send a field technician to perform this work at customer premises. Electric or gas service for non-residential customers will continue to be disconnected by a field technician at the customer premise. Cost savings resulting from the above collection order changes ($1.633 million) are reflected in the TY 2016 forecast of CSF Operations costs. The zero-based forecast of Collections costs is provided in the workapers supporting my testimony, Ex. SDG&E-13-WP.

[12] Illustrative examples of these historical and forecast order volume graphs are provided in Appendix C of this testimony.
[13] Vulnerable customers include Medical Baseline, Life Support, and customers who self-certify that they have a serious illness or condition that could become life threatening if service is disconnected. See D.14-06-036 at Attachment A pp. 6-7.
[14] *Id.*

3. Cost Drivers

In addition to order volumes and customer growth, CSF field technician costs are driven by the length of time it takes to travel to customer premises ("drive time"); the length of time it takes to complete each type of work order ("on premise time"); the amount of "non-job" time (e.g., for start of day and end of day non-order work, breaks, one-on-one discussions with supervisors, and other non-order activities); training time; and vacation and sickness time.

a. Drive Time

Each CSF order has an associated average drive time per order to allow the field technician time to travel to the customer's premise (between orders). Historical and forecast average drive times per order are summarized in Table SAF-7 below. Forecasted 2014-2016 average drive times per order assume a 1% increase per year due to increased traffic congestion, resulting in a 24 second increase in average drive time per order by TY 2016.

TABLE SAF-7

Average Drive Time per CSF Order (In Minutes)[15]

Historical Average Drive Time Per Order					Forecast Average Drive Time Per Order		
2009	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
9.46	10.63	12.27	13.27	13.09	13.22	13.35	13.49

The projected 1% increase in drive time is based on the fact that actual average drive time per order has increased by an average of 8% per year over the past five years. A Southern California traffic congestion report prepared by INRIX, Inc. also substantiates the reasonableness of an annual 1% increase in average drive time per order.[16] The increase in average drive time per order forecasted for TY 2016 is also consistent with the increasing traffic congestion assumptions the Commission adopted in SDG&E's last GRC proceeding, wherein the Commission stated:

> SDG&E justifies the 1% increase in drive time because of the Global Insights Regional Forecast of August 2011, which estimates that employment will grow in 2011 and 2012 in the San Diego area, and is higher than the employment growth in 2009. SDG&E contends that increased employment and positive customer growth will mean more vehicle trips and increased traffic congestion. SDG&E also relies on 2010 and 2011 data for average drive time for customer service field

[15] Excludes drive time associated with First, Second and Third Call Collections orders.
[16] A copy of INRIX Inc.'s traffic congestion report, including data for the San Diego area, is provided in Appendix D.

orders which show that average drive time increased over the 2009 level. We agree with SDG&E's contention that the average drive time in 2012 will increase over the average drive time for 2009. Accordingly, DRA's recommended adjustment of $150,000 is not adopted. (D.13-05-010 at pp.465-466.)

b. On Premise Time

Each CSF order type has an associated on premise average order completion time. On premise times can change over time to the extent changes in procedures or new safety requirements are implemented for a particular order type. SDG&E is conducting an Engineering Labor Standards ("ELS") study to determine how long it should take to complete each subject order type, assuming all applicable company procedures and safety requirements are followed. Because the final ELS study results are not yet available, actual base year 2013 average on premise times per order type were used to forecast because the most current procedures and safety requirements are reflected in 2013 on premise times.

Table SAF-8 below summarizes historical and forecast total average on premise times, which change from year to year based on the order mix (number of each order type completed) each year.

TABLE SAF-8
Total Average On-Premise Time per CSF Order (Minutes)[17]

Historical Average On Premise Time Per Order					Forecast Average On Premise Time Per Order		
2009	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
14.46	16.44	20.94	22.42	23.77	23.71	23.82	23.80

c. Non-Job Time, Training Time, Vacation and Sickness, Wage Rate, and Non-Labor Expense

In addition to drive time and on premise time being converted to hours and then full-time equivalents ("FTEs"), the appropriate non-job time[18]; meetings/training time; and the SDG&E vacation and sickness factors were applied to compute forecasted FTEs by year. Base year 2013 non-job time was used to determine the forecast non-job time per FTE on the basis that 2013 is most indicative of current experience. Time dedicated to training was computed using a five-

[17] Excludes on premise time associated with First, Second and Third Call Collections orders.
[18] E.g., for start/end of day non-order work, breaks, one-on-one discussions with supervisors, standby time, vehicle breakdown time and other non-work order time.

year average because training time fluctuates from year to year, largely due to variations in the level of workforce turnover each year.

Table SAF-9 below provides a summary of the applicable "loaders" applied to determine the total number of FTEs required for completing the forecast order volumes.

TABLE SAF-9

Loaders Used to Determine Overall FTE Requirements

	Loaders
Non-job time (e.g., start and end of day non-order work, breaks, etc.)	36.16%
Training (meetings/training)	7.13%
Vacation and Sickness	17.52%

A blended wage rate for the various CSF job classifications is used to compute total labor expense. An associated non-labor expense per FTE for related small tools, uniforms, materials, supplies and expenses is also added to compute total non-labor expenses for TY 2016. The non-labor expense per FTE is based on a five-year average.

4. Continuous Improvement Efforts

SDG&E focuses on continuously improving the efficiency of its CSF operations in the interest of keeping customer rates as low as possible. In addition to the Collections process change and associated cost savings noted above, the TY 2016 funding request for the CSF operations cost category reflects other cost savings totaling $0.698 million. SDG&E intends to achieve these additional efficiency improvements through a combination of: (a) improving work order routing to build tighter routes and reduce time spent traveling to customer premises (independent of drive time associated with traffic congestion), (b) reducing on premise times by completing service orders more efficiently, and (c) reducing incomplete orders. Process changes are being implemented on a pilot basis which, if successful, will be implemented system wide. Regardless of the success of the pilots that are currently underway, SDG&E is committed to achieving this level of additional cost reductions through efficiency improvements.

5. Proposed Service Enhancements

To further enhance customers' experience with the service provided by field technicians and to address customer safety concerns, SDG&E is requesting $0.840 million in funding for two additional, new services: (a) enhanced customer education while on customer premises, and (b) proactive, customer outreach safety checks.

a. Enhanced Customer Education While On Customer Premises

SB 183, effective January 1, 2011 for new construction,[19] requires customers to install CO detectors in all inhabited residences. However, many customers are not aware of and have not installed such detectors. Contingent on receiving funding in this GRC proceeding and beginning in 2016, SDG&E proposes that field technicians who are already inside a customer's residence completing an entered service order will spend additional time on premises to ask the customer if they have a CO detector. If the customer does not have a CO detector, the technician will explain to the customer the legal requirement and importance of installing a CO detector.

In 2014, SDG&E provided new MDTs to all of its field technicians to replace obsolete technology. The new MDTs have Intranet and some Internet access. Contingent on receiving funding in this GRC proceeding and beginning in 2016, SDG&E proposes that field technicians who are at a customer premise completing a service order spend time demonstrating to the customer the types of safety and other information and programs available to customers on SDG&E's website (sdge.com).

SDG&E is requesting $0.245 million for the above customer education service enhancements, which is based on the assumption that 1.5 minutes of additional on premise time will be incurred during entered orders where the customer is present.[20] The additional on premise time to be used for the above two purposes is intended to enhance customer safety and increase customer awareness of SDG&E programs and services. The cost of producing and printing associated collateral materials for the field technicians' use is covered in the testimony of SDG&E witness Brad Baugh, Ex. SDG&E-14.

b. Customer Outreach Safety Checks

Approximately 500,000 SDG&E customers have not requested field technician services from SDG&E within the last seven years.[21] In support of SDG&E's goal to continuously improve safety, and contingent on receiving funding in this GRC proceeding, beginning in 2016, SDG&E proposes to mail postcards to customers offering them the opportunity to have a field technician come out to perform a safety check on all of the customer's gas appliances. Postcards

[19] The effective date of SB 183 is July 1, 2011 for existing single family dwellings and January 1, 2013 for multi-family dwellings and buildings such as apartments and hotels.

[20] Some SDG&E customers leave keys for SDG&E field technicians to enter their homes to complete service order requests in their absence. These orders have been excluded for the purpose of forecasting costs.

[21] SDG&E maintains records of completed customer service orders for a period of seven years.

would be mailed on a targeted basis, workload permitting, to manage order volumes within each geographic area served by each operating base and within authorized funding levels.

SDG&E is requesting $0.595 million for field technicians to perform the proposed customer outreach safety checks described above, which assumes 10,000 such orders are completed per year, with an average on premise time of 38.75 minutes and other drive time and non-job time elements factored into the calculation. Costs associated with mailing postcards to customers and responding to resulting customer calls to SDG&E's Customer Contact Center are covered in the testimony of SDG&E witness Brad Baugh, Ex. SDG&E-14.

6. Incremental Field Technician Training

SDG&E is requesting incremental funding totaling $0.038 million for CSF field employees to complete OpQual training and be re-certified every three years, rather than the current five-year cycle. The basis for the forecasted costs and rationale for the increased frequency of the OpQual re-certification is covered in the testimony of SDG&E witness Frank Ayala, Ex. SDG&E-04.

7. New MDT Wireless Network Access Fees

SDG&E is requesting $0.037 million in incremental non-labor funding to cover the cost of new MDT wireless access. The forecast expenses are based on wireless access fees charged by AT&T. New MDT wireless network access is needed because, in 2014, SDG&E replaced all MDTs and vehicle mount docking stations used by CSF field employees. The old MDTs were replaced due to their age and the fact that they did not support the Windows 7 operating system and upgraded Windows 7 SORT application system.[22]

The new MDTs are connected to AT&T's broadband wireless network whereas the prior MDTs were cradled in the technicians' service trucks so that the technicians could receive work orders over SDG&E's radio network.

8. Summary of CSF Operations Costs

SDG&E's TY 2016 funding request of $14.675 million for the CSF Operations cost category consists of the elements summarized in Table SAF-10 below.

[22] SORT is the system SDG&E uses to schedule, route, dispatch and track CSF work orders. Each CSF field employee is equipped with an MDT and work orders are sent to field employees for completion via their MDTs.

TABLE SAF-10

Summary of TY 2016 Expenses for CSF Operations Cost Category

Activity	TY 2016 Forecast Shown in Thousands of 2013 Dollars		
	Labor	**Non-labor**	**Total**
TY 2016 Base Workload Forecast (excluding customer growth and first, second and third call collection notices)	**12,500**	**748**	**13,248**
2013 Adjusted Recorded	*12,385*	*1,026*	*13,411*
Change Due to TY 2016 Order Forecast	*115*	*(278)*	*(163)*
TY 2016 Order Forecast Due to Customer Growth	**405**	**24**	**429**
TY 2016 Increase in Drive Time Due to Increasing Traffic Congestion	**139**	**8**	**147**
TY 2016 Efficiency Improvements (routing, on premise time and incomplete orders)	**(698)**	**0**	**(698)**
TY 2016 Collections Base Workload Forecast	**601**	**33**	**634**
2013 Collections Adjusted Recorded	*2,130*	*137*	*2,267*
Change Due to Mailing versus Fielding First Call Collections Notices	*(1,529)*	*(104)*	*(1,633)*
Subtotal	**12,947**	**813**	**13,760**
New Services for Customers			
Enhanced Customer Education While On Customer Premises (includes customer growth)	231	14	245
Customer Outreach Safety Checks (includes annual increase in drive time)	561	34	595
Subtotal	**792**	**48**	**840**
Other Incremental Costs			
Operator Qualification Training	38	0	38
New AT&T Wireless Network Access Fees	0	37	37
Subtotal	**38**	**37**	**75**
2016 Total Adjusted Forecast	**13,777**	**898**	**14,675**

In summary, the $1.003 million reduction from 2013 adjusted recorded costs for the CSF Operations cost category is the net effect of (a) an increase of $0.266 million due to a forecasted net increase in order volumes; (b) an increase of $0.147 million due to increased traffic congestion and a resulting increase in average drive time per order; (c) a $1.633 million reduction in field collections costs resulting from mailing rather than fielding first call collection notices; (d) a reduction of $0.698 million resulting from other efficiency improvements; (f) an increase of $0.840 million for enhanced customer education and outreach safety checks; and (g)

an increase of $0.075 million for more frequent OpQual training for field technicians and payment of new AT&T wireless access fees.

C. CSF Supervision

Table SAF-11 below summarizes SDG&E's requested TY 2016 expenses for the CSF Supervision cost category.

TABLE SAF-11

CSF Supervision Expense Forecast

(Shown in Thousands of 2013 Dollars)

	2013 Adjusted-Recorded	TY 2016 Forecast	Change
Labor	1,441	1,402	-39
Non-labor	50	82	32
Total	**1,491**	**1,484**	**-7**

1. Description of Costs and Underlying Activities

Organizationally, CSF field employees report to field supervisors. Like field technicians and collectors, field supervisors are geographically dispersed across SDG&E's five operating bases. Field supervisors hire and coach employees, conduct safety and job observations, coordinate with dispatch and others to address and resolve field issues, respond to emergency incidents to provide on-site leadership, and manage the overall performance of CSF employees who work at each of the operating bases.

2. Forecast Method

The estimated number of field supervisors in TY 2016 is based on maintaining the base year 2013 average employee-to-supervisor ratio of 12:1. A ratio of 12:1 is appropriate given the geographic areas covered by each operating base; the variety of work performed and conditions encountered at customer premises; and the expectation that supervisors spend as much time as possible in the field performing safety and job observations, coaching employees, and managing employee performance. A zero-based forecast of expenses was used in lieu of other forecasting methodologies because a zero-based forecast is the only method that appropriately maintains the desired span of control.

Non-labor expenses include cell phones, office supplies and other miscellaneous expenses. The non-labor cost estimate is based on a five-year average of historical non-labor expense per supervisor, multiplied by the forecasted number of supervisors. Because non-labor

costs are driven by the number of supervisors, historical averaging or trending of expenses alone would not be appropriate because expenses would not be aligned with the forecasted workforce levels.

3. Cost Drivers

Costs are driven by the number of supervisors and applicable salary levels for supervisory employees. The number of supervisors is driven by the number of field employees, maintaining a span of control of 12:1, and the geographic coverage needed to provide adequate supervision for all geographic operating areas at all times.

D. CSF Dispatch

Table SAF-12 below summarizes SDG&E's requested TY 2016 expenses for the Dispatch cost category.

TABLE SAF-12

CSF Dispatch Expense Forecast

(Shown in Thousands of 2013 Dollars)

	2013 Adjusted-Recorded	TY 2016 Forecast	Change
Labor	2,940	2,962	22
Non-labor	33	40	7
Total	**2,973**	**3,002**	**29**

1. Description of Costs and Underlying Assumptions

Dispatch personnel route and dispatch work orders to CSF field employees on a day before and same day basis, 24 hours a day, 365 days a year. Dispatchers are centrally located and handle all matters that arise during the day, including dispatch of emergency orders real time as they are received; redistribution of work when employees call in sick or otherwise are unavailable; and redistribution of work orders when employees are not able to complete all work that has been assigned for the day.

Non-labor expenses include cell phone expenses, office materials and other miscellaneous expenses.

2. Forecast Method

Dispatch operations were not impacted by Smart Meter implementation, and both labor and non-labor costs have remained relatively flat over time. Nonetheless, a five-year average was used to forecast both labor and non-labor costs. A five-year historical average was used to

avoid the potential for artificially inflating or deflating results based on short-term anomalies, emergencies, or other unforeseen events.

3. Cost Drivers

Costs are primarily driven by the number of dispatchers needed to provide 24/7, 365-days-per-year coverage, including the need to immediately respond to all emergency orders, as well as applicable wage rates.

E. CSF Support

Table SAF-13 summarizes SDG&E's requested TY 2016 expenses for the CSF Support cost category.

TABLE SAF-13

CSF Support Expense Forecast

(Shown in Thousands of 2013 Dollars)

	2013 Adjusted-Recorded	TY 2016 Forecast	Change
Labor	2,556	2,584	28
Non-labor	292	390	98
Total	**2,848**	**2,974**	**126**

1. Description of Costs and Underlying Activities

The CSF Support cost category includes: (1) centralized training (classroom instructors and a training manager located at SDG&E's skills training center); (2) field instructors who accompany new field employees immediately following their formal training; (3) quality assurance ("QA") inspectors and a QA supervisor who inspect the work of technicians; (4) district operations clerks who are located at the field operating bases; (5) District Operations Managers who oversee the day-to-day operations of each field operating base; (6) a Meter Access group that resolves any difficulty field technicians might be experiencing in gaining safe access to meters at customer premises; (7) a Safety group that fosters safe work practices among CSF employees; and (8) a financial analyst.

Non-labor costs include cell phones, office supplies and other miscellaneous expenses.

2. Forecast Method

Forecasted TY 2016 expenses for both labor and non-labor are based on base year 2013 recorded costs. A base year methodology was used because this cost category was impacted by organizational changes in 2013 at the company. During this organizational change, the Meter

Access group was expanded from six to eight positions to address workload requirements. A new safety group was also created, consisting of one project manager and two advisors, to foster safe work practices among CSF employees. Use of any forecast methodology other than the base year would not accurately reflect current operations and staffing levels.

3. Cost Drivers

Costs are primarily driven by the need to: (1) train new employees; (2) maintain a technically proficient workforce; and (3) ensure all work is performed in a manner that meets the company's quality standards.

4. Proposed Incremental Funding

SDG&E is proposing $0.126 million in incremental funding, which reflects the net effect of: (a) eliminating one collections field instructor position given the reduction in field collectors that will result from no longer hand-delivering first collection notices, and (b) adding a senior training instructor position and new video/training equipment. The instructor and video equipment are needed to update and keep current all existing training videos, which are used to demonstrate the appliances and other equipment and conditions field technicians encounter in the field. In addition, the instructor and video equipment are needed to create video clips and electronic links so that CSF field technicians can readily access "how-to" visual demonstrations using their new MDTs. SDG&E has not modernized its policies and procedures in this manner because, until recently, field technicians did not have Intranet connectivity in the field.

Incremental labor costs are based on the estimated cost of the new position. Non-labor costs include the one-time cost of video and modernized training equipment, as well as non-labor costs using base year 2013 costs for similar positions.

5. Summary of CSF Support Costs

Table SAF-14 below summarizes the CSF support costs described above.

TABLE SAF-14

Summary of TY 2016 Expenses for CSF Support

(Shown in Thousands of 2013 Dollars)

Activity	TY 2016 Forecast		
	Labor	**Non-labor**	**Total**
Forecast Based on Base Year 2013 Recorded Costs	2,556	292	2,848
Incremental Funding Requests			
Field Instructor Position	(72)		(72)
Senior Training Instructor Position	100	5	105
Training Equipment	0	93	93
Total	**2,584**	**390**	**2,974**

III. CAPITAL

Capital costs for the forecast years 2014, 2015 and 2016, for information technology systems that support CSF operations (summarized in Table SAF-15 below), are sponsored by SDG&E witness Stephen Mikovits, Ex. SDG&E-19. Refer to Mr. Mikovits' workpapers, Ex. SDG&E-19-CWP, for a discussion regarding the forecasted costs. The purpose of this section of my testimony is to describe the operating need for these costs.

TABLE SAF-15

Test Year 2016 Summary of Total Capital Costs

CUSTOMER SERVICES FIELD			
Shown in Thousands of 2013 Dollars	**2014**	**2015**	**2016**
SORT MDT Refresh	121	0	0

SORT is SDG&E's CSF work order management system. CSF field employees are equipped with MDTs, which allow them to receive and track work orders in the field using the SORT system. In 2014, all CSF field employees' MDTs and vehicle mount docking stations were replaced. The MDTs were replaced due to their age and the fact that they did not support the Windows 7 operating system and upgraded Windows 7 SORT application system.

The new MDTs are connected to AT&T's broadband wireless network and are equipped with Intranet and some Internet access enabling the field technicians to access the most current company policies, procedures and safety information, as well as send and receive company emails.

IV. SDG&E RESPONSE TIMES FOR PRIORITY 1 GAS LEAK ORDERS

In its decision in SDG&E's last GRC proceeding (D.13-05-010), the Commission directed SDG&E to provide annual and monthly data showing SDG&E's performance responding to A1 gas leak orders, as well as an explanation of the efforts SDG&E has taken to minimize delays in responding to A1 leak calls.[23] Table SAF-16 and Table SAF-17 below show SDG&E's annual and monthly P1 leak response times, respectively.

TABLE SAF-16

SDG&E Response to P1 Leak Orders – Annual

Year	Reported P1 Leaks	Missed Window	% Missed	Average Response Time Minutes
2011	5,558	1,273	22.9	50.6
2012	6,107	892	14.6	41.7
2013	7,079	945	13.3	40.8
2014 (YTD May)	2,672	321	12.0	38.7

[23] "A1" is the priority label used for the highest priority Southern California Gas Company emergency orders. The equivalent priority at SDG&E is referred to as "Priority 1" or "P1". SDG&E's terminology (i.e., "P1" versus "A1") will be used henceforth in my testimony.

TABLE SAF-17

SDG&E Response to P1 Leak Orders - Monthly

Month	Reported P1 Leaks	Missed Window	% Missed	Average Response Time Minutes	Month	Reported P1 Leaks	Missed Window	% Missed	Average Response Time Minutes
Jan 2011	629	209	33.2	74.0	Jan 2013	699	78	11.2	37.2
Feb 2011	420	105	25.0	56.0	Feb 2013	453	35	7.7	33.4
Mar 2011	406	110	27.1	56.0	Mar 2013	489	54	11.0	40.0
Apr 2011	356	78	21.9	46.6	Apr 2013	509	39	7.7	33.4
May 2011	407	113	27.8	51.3	May 2013	469	37	7.9	35.0
June 2011	330	82	24.8	46.2	June 2013	452	47	10.4	39.1
July 2011	325	55	16.9	42.2	July 2013	664	180	27.1	58.7
Aug 2011	377	86	22.8	49.4	Aug 2013	560	49	8.8	38.1
Sept 2011	391	71	18.2	50.4	Sept 2013	580	141	24.3	55.0
Oct 2011	596	119	20.0	48.0	Oct 2013	596	87	14.6	39.1
Nov 2011	703	132	18.8	41.5	Nov 2013	728	75	10.3	36.7
Dec 2011	618	113	18.3	41.8	Dec 2013	880	123	14.0	39.8
Jan 2012	548	77	14.1	40.1	Jan 2014	652	69	10.6	38.8
Feb 2012	489	62	12.7	38.2	Feb 2014	505	51	10.1	36.1
Mar 2012	525	89	17.0	39.9	Mar 2014	559	77	13.8	38.5
Apr 2012	387	40	10.3	36.5	Apr 2014	489	46	9.4	36.6
May 2012	397	42	10.6	36.1	May 2014	467	78	16.7	44
June 2012	332	40	12.0	38.5					
July 2012	489	167	34.2	79.6					
Aug 2012	451	60	13.3	38.3					
Sept 2012	492	68	13.8	39.9					
Oct 2012	509	65	12.8	38.0					
Nov 2012	786	92	11.7	37.6					
Dec 2012	702	90	12.8	38.4					

SDG&E's goal has been to respond to all P1 orders within 60 minutes. Although P1 order volumes increased by 27% from 2011 to 2013, SDG&E's response times have continuously improved from an average of approximately 51 minutes in 2011 to an average of approximately 41 minutes in 2013 (a 20% reduction). The percentage of time SDG&E has missed its response time goal has also been reduced by nearly half during the same time period.

Efforts SDG&E has taken to minimize delays in responding to P1 leak calls include: (1) implementing a new, after-hours, automated call-out process whereby employees are contacted simultaneously to obtain the needed number of responders rather than manually, one at a time, until reaching a technician who is able to respond; (2) educating employees on the manner in which response time is measured; (3) establishing new Dispatch procedures to ensure timely processing of emergency orders; (4) generating reports and following up to investigate and

address root causes of missed response times; and (5) coaching and counseling employees who fail to meet response time requirements. SDG&E plans to continue these efforts going forward.

Like reports of gas leaks, other emergency orders (e.g., reports of carbon monoxide) are also classified as P1 or P2 in terms of their priority. SDG&E's goal is to respond to all P1 orders within 60 minutes and to all P2 orders within four hours. Order volumes and average response times for all P1 and P2 orders are provided in Appendix E of this testimony.

V. CONCLUSION

My O&M and capital forecasts were carefully developed and scrutinized by CSF staff members and me as representing a reasonable and prudent level of funding for SDG&E CSF operations. The expense forecasts are based on diligent, thorough and transparent consideration of the myriad of factors influencing costs associated with providing CSF services. The funding requested in my testimony is critical to providing safe, reliable, efficient services at customer premises, and reflects SDG&E's efforts to continuously improve its operations.

This concludes my prepared direct testimony.

VI. WITNESS QUALIFICATIONS

My name is Sara Franke. I am currently the Director of Customer Services Staff for Southern California Gas Company ("SoCalGas"). I am responsible for leading and overseeing the policies and procedures, training, quality assurance, technology and other staff functions that support Customer Services Field operations, including CSF shared service functions performed on behalf of SDG&E. I have held this position since January 2014. During 2013, I was the Director of Pacific Region, one of SoCalGas' operating regions, responsible for Customer Services and Distribution field operations within the greater Los Angeles area. For seven years prior to my two most recent positions, I was the Director of Labor Relations, responsible for negotiating and administering the collective bargaining agreement between SoCalGas and the two unions on its property, Utility Workers Union of America ("UWUA") and International Chemical Workers Union Council ("ICWUC"). And for a portion of the same time period, I served as the Director of Labor Relations for SDG&E.

I have been employed by SoCalGas since 1981 and have held management positions of increasing responsibility in Customer Services (including Energy Systems Engineer for SoCalGas' Commercial/Industrial customers and Director of SoCalGas' and SDG&E's Customer Contact Centers), Regulatory Affairs, Human Resources, Demand-Side Management and Fleet Operations.

I received a Bachelor of Science degree in Engineering from the University of California, Davis and a Masters in Business Administration from California State University, Long Beach. I also attended the United States Naval Academy my first year of college.

I have previously testified before the California Public Utilities Commission on matters pertaining to SoCalGas' demand-side management programs.

APPENDIX A

Glossary of Acronyms

ACOR – Atmospheric Corrosion

CO – Carbon Monoxide

CSF – Customer Services Field

CSO – Customer Service Order

D - Decision

DOT – Department of Transportation

ELS – Engineering Labor Standards

FTE – Full-time Equivalent

GPS – Global Positioning System

GRC – General Rate Case

HBI – High Bill Investigation

ICWUC – International Chemical Workers Union Council

IT – Information Technology

MDT – Mobile Data Terminal

MSA – Meter Set Assembly

OpQual – Operator Qualification

O&M – Operations and Maintenance

PCOC – Pest Control Operators of California

P1/P2 – Priority 1 and Priority 2 emergency orders

QA – Quality Assurance

SB – Senate Bill

SDG&E – San Diego Gas & Electric

SORT – Service Order Routing Tool

TY – Test Year

UWUA – Utility Workers Union of America

APPENDIX B

Customer Services Field Adjustments to 2013-Recorded Costs

Base Year 2013 Adjusted Recorded Expenses
Shown in Thousands of 2013 Dollars

Cost Category	2013 Recorded Without V&S	**2013 Adjustments**	2013 Recorded Adjusted Without V&S	V&S	**2013 Recorded Adjusted With V&S**
CSF - Operations (1FC001)	$13,804	($113)	$13,691	$1,987	$15,678
CSF - Supvervision (1FC002)	$1,531	($237)	$1,294	$197	$1,491
CSF - Dispatch (1FC003)	$2,493	$78	$2,571	$402	$2,973
CSF - Support (1FC004)	$2,069	$429	$2,498	$350	$2,848
CSF Staff Manager Shared Services Cost Center (2100-3459)	$103	($103)	$0	$0	$0
Total CSF	$20,000	**$54**	$20,054	$2,936	**$22,990**

Note: Totals may include rounding differences

2013 Historical Adjustments Detail
Shown in Thousands of 2013 Dollars

Cost Category	Adjustment Explanations
CSF - Operations 1FC001	(-$222) - Transfer out supervision expense to CSF Supervision 1FC002 cost category to align history with forecast ; (-$126) - Transfer out field instructor expense to CSF Support 1FC004 cost category to align history with forecast; (-$78) - Transfer out dispatch expense to CSF Dispatch 1FC003 cost category to align history with forecast; $308 - Transfer in multi-gas detector non-labor expense from CSF Support 1FC004 cost category to align history with forecast; and $5 - Transfer in operations expense from CSF Supervision 1FC002 cost category to align history with forecast
CSF - Supvervision 1FC002	(-$306) - Transfer out district operations managers expense to CSF Support 1FC004 cost category to align history with forecast; (-$148) - Transfer out staff assitants expense to CSF Support 1FC004 cost category to align history with forecast; (-$5) - Transfer out operations expense to CSF Operations 1FC001 cost category to align history with forecast; and $222 - Transfer in supervision expense from CSF Operations 1FC001 cost category to align history with forecast
CSF - Dispatch 1FC003	$78 - Transfer in dispatch expense from CSF Operations 1FC001 cost category to align history with forecast
CSF - Support 1FC004	(-$308) - Transfer out multi-gas detector non-labor expense to CSF Operations 1FC001 cost category to align history with forecast ; $306 - Transfer in district operations managers expense from CSF Supervision 1FC002 cost category to align history with forecast; $148 - Transfer in staff assistants expense from CSF Supervision 1FC002 cost category to align history with forecast; $126 - Transfer in field instructors expense from CSF Operations 1FC001 cost category to align history with forecast; $103 - Transfer in labor and non-labor expense from CSF Staff Manager shared service cost center 2100-3456 in order to align history with forecast; this cost center is no longer shared; and $54 - Transfer in meter access expense from Advanced Meter Operations cost center 2100-3457 to align history with forecast
CSF Staff Manager USS 2100-3456	(-$103) - Transfer out labor and non-labor expense to CSF Support 1FC004 cost category to align history with forecast
Total	**$54**

APPENDIX C
Illustrative Examples of Work Order Volume Forecasts by Individual Order Type

Example 1

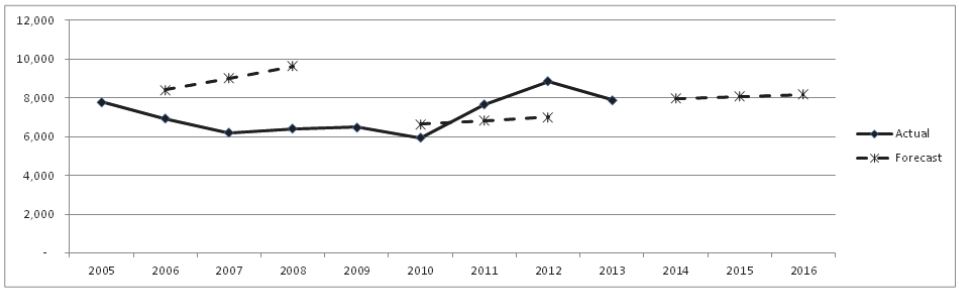
TURN ON/SHUTOFF - SHUT OFF GAS

Source Customer Work
Order Group TurnOn/ShutOff
Order Type SHUT OFF GAS

Description: This is a service request to shut off gas service. The field technician turns off the gas service at the customer's meter.

Histroical Averages	
5-Yr Avg	7,369
4-Yr Avg	7,591
3-Yr Avg	8,139

Order Counts	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Actual	7,795	6,944	6,216	6,414	6,482	5,946	7,659	8,863	7,896			
Forecast		8,417	9,028	9,638		6,649	6,828	7,008		7,987	8,079	8,170



Forecasting Method: Base Year

This order type was impacted by Smart Meter. 2013 is the first full year post Smart Meter implementation.

Example 2

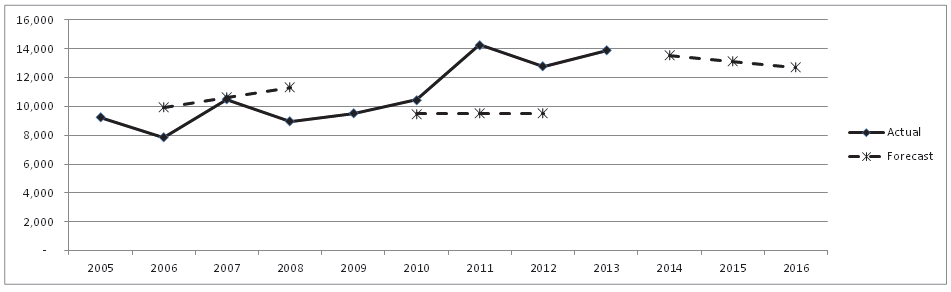
CSO - NO GAS

Source Customer Work
Order Group *CSO*
Order Type NO GAS

Description: This is a service order for which a customer has indicated they have no gas. The field technician investigates the source of the problem, takes corrective action and restores gas service as needed.

Histroical Averages	
5-Yr Avg	12,181
4-Yr Avg	12,850
3-Yr Avg	13,651

Order Counts	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Actual	9,258	7,844	10,491	8,946	9,504	10,447	14,273	12,768	13,913			
Forecast		9,954	10,630	11,307		9,479	9,497	9,515		13,520	13,127	12,734



Forecasting Method: 5-Yr Avg

Volumes fluctuate from year to year and are impacted by external factors outside the company's control, e.g., weather fluctuations, conditions which may cause a customer to be without gas, and school maintenance schedules.

Example 3

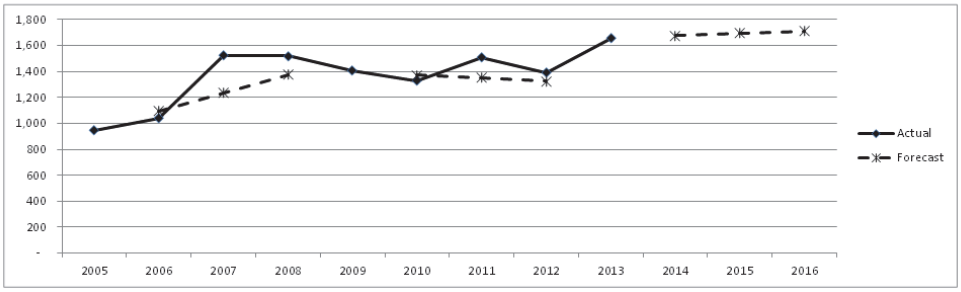
CSO - Carbon Monoxide-Non Emergency

Source Customer Work
Order Group *CSO*
Order Type Carbon Monoxide-Non Emergency

Description: This is a service order for which the customer has requested that a field technician check their premises for Carbon Monoxide (CO); the customer has not experienced any CO symptoms.

Histroical Averages	
5-Yr Avg	1,459
4-Yr Avg	1,471
3-Yr Avg	1,519

Order Counts	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Actual	944	1,038	1,522	1,520	1,409	1,328	1,506	1,392	1,658			
Forecast		1,095	1,235	1,375		1,372	1,349	1,326		1,675	1,692	1,709



Forecasting Method: Base Year

2013 reflects the most recent experience since Senate Bill 183 was enacted with the requirement to install CO detectors in residential dwellings.

Example 4

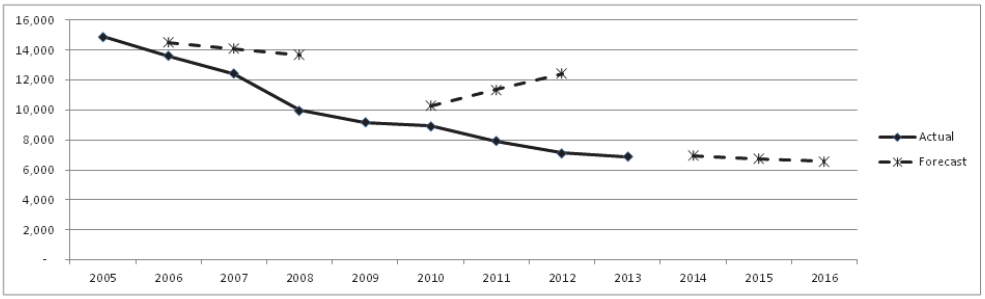
CHANGE OF ACCOUNT - GIVE NOTICE

Source Customer Work
Order Group *Change of Account*
Order Type Give Notice

Description: This is a service order for which a field technician was going to shut off gas service but, while at the premises, determines that a new occupant has moved in. The new occupant is given a 24-hour notice of the requirement to establish an account. The gas is left on.

Histroical Averages	
5-Yr Avg	8,013
4-Yr Avg	7,720
3-Yr Avg	7,320

Order Counts	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Actual	14,891	13,589	12,423	9,968	9,183	8,922	7,921	7,136	6,902			
Forecast		14,504	14,093	13,682		10,259	11,353	12,447		6,952	6,751	6,566



Forecasting Method: Base Year

This order type is impacted by Smart Meter. 2013 is the first full year post Smart Meter implementation.

APPENDIX D

Pest Control Operators of California Forecasted Growth In Fumigation Work

The Pest Control Operators of California (PCOC) is a non-profit trade association that has served the business and educational needs of pest control operators for over 60 years. PCOC keeps its members up-to-date on new materials, procedures, laws and precautions. PCOC also works closely with the state's Structural Pest Control Board and Department of Pesticide Regulation.

PCOC provided forecasted 2014 fumigation activity based on historical data and current trends in the marketplace. PCOC provided the following historical information regarding the number of fumigations in Los Angeles, Orange County and San Diego:

Year	LA	OR	SD
2012	29,626	14,046	17,394
2013	31,748	15,163	18,282
	2,122	1,117	888
% of Increase	7%	8%	5%

Average	7%

PCOC provided the following projected increases in fumigation activity for 2014:

Year	LA	OR	SD
2014	5%	7%	5%

Given PCOC's projected growth in the level of fumigation activity, SDG&E assumed the same 5% growth rate for fumigation work orders.

APPENDIX E

Report Prepared by INRIX, Inc. Regarding Traffic Congestion in Southern California

Metro Area	INRIX Measure of Congestion (percentages represent comparison to 2012)	Unit	Year 2013
Greater Los Angeles including L.A., Ventura and Orange Counties	% extra time to make a trip in L.A. metro area due to traffic vs free flow conditions	%	31%
	Amount of hours wasted annually in traffic on average	Hours	64
	% Change in traffic congestion vs. prior year	%	8%
Stockton, CA	% extra time to make a trip in L.A. metro area due to traffic vs free flow conditions	%	2.6%
	Amount of hours wasted annually in traffic on average	Hours	5
	% Change in traffic congestion vs. prior year	%	-1%
Modesto, CA	% extra time to make a trip in L.A. metro area due to traffic vs free flow conditions	%	1.5%
	Amount of hours wasted annually in traffic on average	Hours	3
	% Change in traffic congestion vs. prior year	%	-48%
Oxnard, CA	% extra time to make a trip in L.A. metro area due to traffic vs free flow conditions	%	7.5%
	Amount of hours wasted annually in traffic on average	Hours	13
	% Change in traffic congestion vs. prior year	%	7%
Riverside, CA	% extra time to make a trip in L.A. metro area due to traffic vs free flow conditions	%	6.5%
	Amount of hours wasted annually in traffic on average	Hours	14
	% Change in traffic congestion vs. prior year	%	23%
Bakersfield, CA	% extra time to make a trip in L.A. metro area due to traffic vs free flow conditions	%	1%
	Amount of hours wasted annually in traffic on average	Hours	2
	% Change in traffic congestion vs. prior year	%	-58%
San Diego, CA	% extra time to make a trip in L.A. metro area due to traffic vs free flow conditions	%	13%
	Amount of hours wasted annually in traffic on average	Hours	24
	% Change in traffic congestion vs. prior year	%	10%

APPENDIX F

SDG&E Response Time Performance for All P1 and P2 Orders

All P1 Orders - Annual				
Year	**P1 Orders**	**Missed Window**	**% Missed**	**Average Response Time**
2011	6,783	1,551	22.9	50.0
2012	7,208	1,063	14.7	41.5
2013	8,273	1,106	13.4	40.9
2014 (YTD May)	3,186	434	13.6	41.1

All P2 Orders - Annual				
Year	**P2 Orders**	**Missed Window**	**% Missed**	**Average Response Time**
2011	26,007	2,341	9.0	117.1
2012	22,233	1,922	8.6	122.7
2013	17,961	1,282	7.1	110.8
2014 (YTD May)	6,722	402	6.0	105.2

All P1 Orders - Monthly				
Month	**P1 Orders**	**Missed Window**	**% Missed**	**Average Response Time**
Jan-11	796	273	34.3	73.5
Feb-11	545	134	24.6	54.1
Mar-11	525	152	29.0	55.2
Apr-11	418	90	21.5	45.6
May-11	474	132	27.8	50.9
Jun-11	385	97	25.2	46.4
Jul-11	393	68	17.3	42.3
Aug-11	437	96	22.0	48.2
Sep-11	440	83	18.9	49.7
Oct-11	707	135	19.1	47.0
Nov-11	841	152	18.1	41.1
Dec-11	822	139	16.9	40.8
Jan-12	674	101	15	40.5
Feb-12	606	75	12.4	38.6
Mar-12	645	112	17.4	40.4
Apr-12	465	49	10.5	36.0
May-12	455	45	9.9	35.9
Jun-12	412	72	17.5	44.4
Jul-12	544	172	31.6	75.3
Aug-12	500	67	13.4	38.6
Sep-12	533	72	13.5	39.8
Oct-12	570	71	12.5	37.6
Nov-12	905	109	12.0	37.7
Dec-12	899	118	13.1	38.1
Jan-13	943	111	11.8	37.6

All P2 Orders - Monthly				
Month	**P2 Orders**	**Missed Window**	**% Missed**	**Average Response Time**
Jan-11	2,785	296	10.6	129.5
Feb-11	1,966	170	8.6	119.4
Mar-11	1,884	162	8.6	117.9
Apr-11	1,688	115	6.8	107.4
May-11	1,890	153	8.1	112.0
Jun-11	1,648	103	6.3	105.4
Jul-11	1,649	104	6.3	102.7
Aug-11	1,858	106	5.7	99.5
Sep-11	1,834	121	6.6	112.2
Oct-11	3,047	428	14.0	137.2
Nov-11	3,132	359	11.5	126.2
Dec-11	2,626	224	8.5	109.8
Jan-12	2,373	164	6.9	106.8
Feb-12	2,012	168	8.3	111.8
Mar-12	2,122	173	8.2	112.4
Apr-12	1,834	106	5.8	101.0
May-12	1,749	91	5.2	97.6
Jun-12	1,691	90	5.3	99.3
Jul-12	2,105	604	28.7	292.2
Aug-12	1,356	45	3.3	90.4
Sep-12	1,313	71	5.4	94.7
Oct-12	1,601	92	5.7	106.8
Nov-12	2,196	201	9.2	118.0
Dec-12	1,881	117	6.2	103.2
Jan-13	1,770	97	5.5	104.7

Feb-13	572	40	7.0	33.4	**Feb-13**	1,257	47	3.7	97.2
Mar-13	558	65	11.6	39.9	**Mar-13**	1,190	46	3.9	92.3
Apr-13	587	47	8.0	33.8	**Apr-13**	1,224	52	4.2	96.9
May-13	516	42	8.1	35.1	**May-13**	1,114	39	3.5	95.4
Jun-13	508	53	10.4	39.3	**Jun-13**	1,125	43	3.8	94.0
Jul-13	720	184	25.6	57.1	**Jul-13**	1,499	145	9.7	120.4
Aug-13	600	56	9.3	38.3	**Aug-13**	1,458	107	7.3	110.8
Sep-13	627	144	23.0	53.6	**Sep-13**	1,559	158	10.1	128.3
Oct-13	713	135	18.9	45.5	**Oct-13**	1,813	172	9.5	120.6
Nov-13	842	84	10.0	36.4	**Nov-13**	1,968	165	8.4	120.5
Dec-13	1,087	145	13.3	39.4	**Dec-13**	1,984	211	10.6	123.4
Jan-14	784	81	10.3	38.3	**Jan-14**	1,583	129	8.1	117.3
Feb-14	597	58	9.7	36.1	**Feb-14**	1,227	64	5.2	99.1
Mar-14	644	88	13.7	38.6	**Mar-14**	1,446	94	6.5	108.3
Apr-14	569	67	11.8	38.3	**Apr-14**	1,270	70	5.5	100.6
May-14	592	140	23.6	55.3	**May-14**	1,196	45	3.8	96.6

APPENDIX G

RESPONSE TO INFORMAL DATA REQUEST

ORA INFORMAL-SDG&E/SOCALSGAS-DR-05, Question 4
Copies of Relevant Testimony Sections from Other Sempra Utility Witness Exhibits that Customer Services Witnesses Reference

SDG&E

Supporting the Request of Sara Franke

Customer Services Field

Note: Frank Ayala is the new witness for "Gas Distribution" and has adopted the testimony of Gina Orozco-Mejia. The testimony and workpaper page numbers will change from GOM-(page#) to FBA-(page#).

ORA INFORMAL DATA REQUEST
ORA INFORMAL-SDG&E/SOCALGAS-DR-05
SDG&E/SOCALGAS 2016 GRC – A.14-11-XXX
SDG&E/SOCALGAS RESPONSE
DATE RECEIVED: AUGUST 15, 2014
DATE RESPONDED: AUGUST 20, 2014

SDG&E and SoCalGas

Question 4
Copies of Relevant Testimony Sections from Other Sempra Utility Witness Exhibits that Customer Services Witnesses Reference

Provided to ORA witness Tamera Godfrey

ORA INFORMAL DATA REQUEST
ORA INFORMAL-SDG&E/SOCALGAS-DR-05
SDG&E/SOCALGAS 2016 GRC – A.14-11-XXX
SDG&E/SOCALGAS RESPONSE
DATE RECEIVED: AUGUST 15, 2014
DATE RESPONDED: AUGUST 20, 2014

4. Please provide copies of relevant testimony sections from other Sempra Utility Witness exhibits that Customer Services references in their own Exhibits (eg. Sara Franke's reference to Gina Orozco-Mejia's OpQual training frequency change)

SDG&E-SoCalGas Response:

SoCalGas and SDG&E Customer Service witnesses provided copies of the following testimony sections from other Sempra Utility Witness exhibits that Customer Services references in their own Exhibits to ORA witness Tamera Godfrey during their meeting in San Francisco on Wednesday, August 20, 2014.

Referenced in SoCalGas Ex. SCG-10 (Customer Services Field and Meter Reading) -

- SoCalGas Ex. SCG-04 (Gas Distribution) sponsored by witness Gina Orozco-Mejia
  a. Section II.D.2.a. Operator Qualification Program; pages GOM-57 to GOM-59
  b. Section IV.M.2. Regulators; pages GOM-127 to GOM-129

Referenced in SoCalGas Ex. SCG-10 (Customer Services Field and Meter Reading) and Ex. SCG-11 (Customer Service Office Operations) –

- SoCalGas Ex. SCG-30 (Customers) sponsored by witness Rose-Marie Payan
  a. Section II.A. 2016 Forecast of SoCalGas Customers and New Meters; pages RMP-1 to RMP-2

Referenced in SoCalGas Ex. SCG-13 (Customer Service Technologies, Policies and Solutions) –

- SoCalGas Ex. SCG-07 (Gas Engineering) sponsored by witness Raymond K. Stanford
  a. Section II.E. Research, Development, and Demonstration; pages RKS-24 to RKS-28

Referenced in SDG&E Ex. SDG&E-13 (Customer Services Field) –

- SDG&E Ex. SDG&E-04 (Gas Distribution) sponsored by witness Gina Orozco-Mejia
  a. Section II.D.1.b.i. Expansion of the Operator Qualification Program; pages GOM-53 to GOM-54

Referenced in SDG&E Ex. SDG&E-13 (Customer Services Field) and Ex. SDG&E-14 (Customer Service Office Operations, Information, and Technologies) –

- SDG&E Ex. SDG&E-31 (Electric Customers and Sales) sponsored by witness Kenneth E. Schiermeyer
  a. Section I. Forecast of 2016 Electric Customers; page KES-1
- SDG&E Ex. SDG&E-32 (Customers) sponsored by witness Rose-Marie Payan
  a. Section II.A. 2016 Forecast of SDG&E Customers and New Meters; pages RMP-1 to RMP-2

Company: San Diego Gas & Electric Company (U 902 M)
Proceeding: 2016 General Rate Case
Application: A.14-11-XXX (NOI)
NOI Exhibit: SDG&E-04

SDG&E

DIRECT TESTIMONY OF GINA OROZCO-MEJIA

(GAS DISTRIBUTION)

July 2014

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

SDGE
A Sempra Energy utility®

NOI Doc #289389

anticipated for this workgroup as described below. Therefore, as a foundational forecast, SDG&E used the 2013 adjusted recorded expense, which represents the base level of leadership, management, support, training personnel, and associated non-labor necessary to maintain current operations. Added to this base expenditure level are incremental additions necessary to adequately fund the activities in this workgroup in TY2016. The total funding required over the 2013 adjusted-recorded base including the incremental additions for the total Operations Management and Training workgroup is $1,166,000 in TY2016.

i. Expansion of the Operator Qualification Program

The Operator Qualification program at SDG&E will require an expansion of the existing program managed by SDG&E's centralized Gas Operations Training department. This expansion is driven by the changes in the Operator Qualification Program including:

- The addition of qualification elements and additional tasks within those elements - Currently there are 55 covered tasks, and each covered tasks consists of a written and a performance test (55 tasks X 2 tests = 110 tests). The Operator Qualification rule requires that the individual's knowledge, skills and abilities are demonstrated and tested for each task. The new program will expand from 55 to 125 tasks. This will require a consequent expansion in qualification training, test and evaluation administration and documentation for this significant increase in the number of tasks.
- An increase in the frequency for subsequent qualification in alignment with emerging industry leading practices - The subsequent qualification cycle is currently done every five years per employee. The industry standard is to be done every three years. Therefore, SDG&E is moving to a three-year cycle. A significant increase in the number of subsequent qualification tests and evaluations will result.
- Increased recordkeeping to record and track the program – The more than doubling of the number of tasks (from 55 to 125) will require a significant increase in employee qualification documentation and record keeping. An electronic record-keeping process will be implemented to bring the existing and expanded program from a manual record-keeping system to a fully electronic system in order to store, review and retrieve all the Operator Qualification records.
- Additional instructional designers, instructors, and qualification evaluators to support program expansion – The increase in number of tasks and increase in the frequency of

subsequent qualification, as described above, will require the addition of instructional designers to design the training modules, instructors to perform qualification training, and evaluators to verify through testing that the skills and knowledge of employees are acceptable and that they are qualified for specific tasks.

The following two items describe the required incremental activities.

a) Pipeline Inspection and Operator Qualification Evaluation Personnel Additions

To enhance pipeline safety, SDG&E embarked on a new high pressure pipeline documentation system that included, but was not limited to, verifying the material records for all high pressure pipeline materials installed, documenting the location of each component installed, and verifying that the strength test parameters meet design specifications. This represents an increase in the resources that were dedicated to pipeline documentation in the past. A portion of this resource impact, the initial resources required to develop the new documentation program, including the engineering, design, and material procurement and verification phase, is already included in the 2013 base. The field documentation quality and control, field material and pipeline as-built drawing development, and field welding and installation inspection portion is an incremental addition for the forecast years, which will require the addition of three Welding Inspectors—one charging to O&M and the other two charging to capital beginning in 2016.

Also included in this workgroup are labor and non-labor expense for two Operator Qualification Evaluators. As explained in the discussion above, the additional Operator Qualification evaluators are required for expanded employee testing to verify that the skills and knowledge of employees are acceptable and that they are qualified for specific tasks. In order to perform the incremental work forecasted in this area, SDG&E is adding one incremental light duty truck in 2016. The costs associated with this vehicle may be found in the prepared direct testimony of Carmen Herrera, Exhibit SDG&E-16.

The total incremental funding required for the additional Welding Inspector (charged to O&M) and the two Operator Qualification Evaluators in this workgroup is $300,000 over the forecast base for TY2016.

Company: San Diego Gas & Electric Company (U 902 M)
Proceeding: 2016 General Rate Case
Application: A.14-11-XXX (NOI)
NOI Exhibit: SDGE-31

SDG&E

DIRECT TESTIMONY OF KENNETH E. SCHIERMEYER

(ELECTRIC CUSTOMERS AND SALES)

July 2014

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

NOI Doc #288822

SDG&E DIRECT TESTIMONY OF KENNETH E. SCHIERMEYER

(ELECTRIC CUSTOMERS AND SALES)

I. FORECAST OF 2016 ELECTRIC CUSTOMERS

My testimony presents the forecast of electric customers for San Diego Gas & Electric Company's (SDG&E's) Test Year (TY) 2016 General Rate Case (GRC). The SDG&E gas customer forecast is discussed in the testimony of witness Ms. Rose-Marie Payan (see Exhibit SDGE-32). Table KS-1 sets forth the estimated customer levels for SDG&E's electric customer classes.

TABLE KS-1:

AVERAGE ANNUAL ELECTRIC CUSTOMERS

Electric Customers	2013	2014	2015	2016	Average Annual % Change, 2013-2016)
Residential	1,249,227	1,257,698	1,270,654	1,286,981	1.0%
Small Commercial	122,602	123,111	123,754	124,362	0.5%
Med/Lg Com/Ind	24,042	24,262	24,576	24,875	1.1%
Agriculture	3,372	3,379	3,379	3,379	0.1%
Lighting	5,975	5,896	5,841	5,790	-1.0%
Total System	**1,405,218**	**1,414,346**	**1,428,204**	**1,445,387**	**0.9%**

II. CUSTOMER FORECAST METHODOLOGY

SDG&E develops electric customer forecasts using statistical models based on demographic data, economic data, seasonal patterns and other inputs that influence customer growth. Total customers are defined as total active meters. Economic and demographic data were based on February 2014 information released from IHS Global Insight's Regional Economic Service.[1]

The residential customer forecast was developed using an econometric model based on the service area's projected level of housing starts, population growth, seasonal factors and other inputs that influence customer growth. The residential forecast was based on quarterly historical data from 1994 through 2013.

The commercial/industrial customer forecast was developed using a statistical analysis based on growth in non-farm employment relative to the growth of commercial/industrial customers. The commercial/industrial forecast was also based on quarterly historical data from

[1] IHS Global Insight is an internationally recognized econometric forecasting firm. The firm's forecasts have been used in many regulatory proceedings.

Company: San Diego Gas & Electric Company (U 902 M)
Proceeding: 2016 General Rate Case
Application: A.14-11-XXX (NOI)
NOI Exhibit: SDGE-32

SDG&E

DIRECT TESTIMONY OF ROSE-MARIE PAYAN

(CUSTOMERS)

July 2014

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

SDGE
A Sempra Energy utility®

NOI Doc #288804

SDG&E DIRECT TESTIMONY OF ROSE-MARIE PAYAN

CUSTOMERS

I. INTRODUCTION

A. Summary of Proposals

The purpose of my testimony is to present San Diego Gas & Electric Company's (SDG&E) gas customer forecast for Test Year 2016. The SDG&E electric customer forecast is discussed in the testimony of witness Kenneth E. Schiermeyer, Exhibit SDGE-31.

B. Organization of Testimony

Section I discusses the forecast. Section II discusses the forecast methodology. This testimony does not discuss gas volumes, as SDG&E is using the currently authorized throughput forecast as its gas sales assumption, as adopted in the California Public Utilities Commission (CPUC) Decision 14-06-007, the Triennial Cost Allocation Proceeding Phase II Settlement Agreement.

C. Support To/From Other Witnesses

The gas customer forecast is used primarily to determine financial needs for certain customer services and new meter installations in Test Year 2016. Needs related to new meter installations are discussed in the testimony of witness Ms. Gina Orozco-Mejia in Exhibit SDGE-04. Cost estimates for customer service field operations resulting from forecasted gas customer growth are discussed in the testimony of witness Ms. Sara A. Franke in Exhibit SDGE-13. Customer growth is also discussed in the testimony of witness Ms. Michelle Somerville, in Exhibit SDGE-34, as it relates to SDG&E's miscellaneous revenues.

II. RECORDED DATA AND OVERVIEW

A. 2016 Forecast of SDG&E Customers and New Meters

Year-average total gas customers are forecasted to increase from 861,573 in 2013 to 891,506 in 2016. This represents a total three-year increase of 29,933 customers and a compound annual growth rate of 1.1 percent. Table SDG&E-RMP-1 shows annual total gas customer recorded data from 2009 through 2013, and forecasted data from 2014 through 2016. Gas customers are forecasted to grow by a net 12,376 from 2015 to 2016, compared to recorded net growth of 5,133, from 2012 to 2013.

TABLE 1

TABLE SDG&E-RMP-1 SDG&E Average Annual Total Gas Customers		
Year	Gas Customers	% change
2009	842,442	0.43%
2010	847,305	0.58%
2011	852,135	0.57%
2012	856,440	0.51%
2013	861,573	0.60%
2014	868,851	0.84%
2015	879,130	1.18%
2016	891,506	1.41%

III. FORECAST METHODOLOGY

A. General Description

The total gas customer count includes quarterly-data forecasts for two major customer classes: residential meters and total commercial and industrial (C&I) meters. Total customers are defined as total active meters. Detailed equations, methods and data are shown in the workpapers corresponding to this exhibit (see Exhibit SDGE-32). Recorded and forecasted housing-start assumptions underlying the residential customer forecast came from IHS Global Insight's February 2014 regional forecast for San Diego County.[1] The employment assumptions underlying the non-residential customer forecast are based on San Diego County recorded data from the California Employment Development Department. Recorded employment data were then projected into the forecast period by applying IHS Global Insight's forecasted percentage growth rates to the latest year of corresponding recorded data at the time the forecast was made.

1. Residential

Residential customers are first forecasted in terms of gas-service residential dwelling units as a function of lagged authorized housing starts. Some residential gas meters have multiple residential units connected to them. Total residential customers are forecasted to increase from 831,403 in 2013 to 861,283 in 2016, with average annual compound growth of 1.2%.

[1] IHS Global Insight is an internationally recognized econometric forecasting firm. The firm's forecasts have been used in many regulatory proceedings.