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

SDG&E

DIRECT TESTIMONY OF BRADLEY M. BAUGH

(CUSTOMER SERVICE OPERATIONS, INFORMATION, AND TECHNOLOGIES)

November 2014

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

SDGE

A Sempra Energy utility®

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SUMMARY

TY 2016 Summary of Total O&M Costs

CS - OPERATIONS, INFORMATION & TECHNOLOGIES			
Shown in Thousands of 2013 Dollars	**2013 Adjusted-Recorded**	**TY2016 Estimated**	**Change**
Total Non-Shared	$57,175	$66,605	$9,430
Total Shared Services (Incurred)	$976	$979	$3
Total O&M	**$58,151**	**$67,584**	**$9,433**

Test Year 2016 Summary of Total Capital IT Costs

INFO TECH/TELECOM CAPITAL			
Shown in Thousands of 2013 Dollars			
Categories of Management	**Estimated 2014**	**Estimated 2015**	**Estimated TY2016**
CS - Operations, Information, and Technologies	**$26,743**	**$26,317**	**$15,579**

Summary of Requests

- To continue upgrading our technology and response systems in order to meet our customers' needs quickly and efficiently, I am requesting $67.6 million (a 16% increase from the 2013 adjusted-recorded costs) for SDG&E's Customer Service Operations, Information, and Technologies. These resources will allow us to provide customers with the following services: metering, billing, credit and collections, remittance processing, postage, customer contact center, branch office, residential customer services, commercial and industrial services, communications and research, customer programs and projects, and technology services. SDG&E's request reflects the effects of the following:
  - System enhancements, operational support, research, and outreach activities to educate and prepare customers for new and changing pricing plans and program options that have been requested and/or previously approved by the Commission.

These include:

- Maintenance and growth of Net Energy Metering ("NEM") and Electric Vehicles ("EV")
- Maintenance and growth of Smart Pricing rates
- Opt-in residential Reduce Your Use ("RYU")
- Default Critical Peak Pricing for medium business customers
- Residential rate reform and transitioning residential customers to time-of-use pricing plans

- Enhancements and expansion of customer convenience platforms, such as the Interactive Voice Response ("IVR"), My Account website, SDG&E.com, and mobile applications
- Increased utilization of social media to connect to our customers in real time
- Continue support of the Energy Management Tool ("EMT") to help customers understand and manage their energy use
- Continue support of the delivery of event notifications and customer established goals and alerts
- Operational efficiency projects
- Expansion of efforts to better understand our customers' needs and provide the proper mix of services and offerings to the right customer at the right time through the right channels
- Continue to maintain and enhance customer privacy protections within the Office of Customer Privacy

- SDG&E has aligned the above activities to create an organization focused on partnering with our customers as a trusted energy advisor by ensuring customers have choice, convenience and control of how they interact with us and manage their energy use. Implementation of these activities will allow SDG&E to continue controlling costs while delivering customer service in a safe, efficient, effective and reliable manner.
- I primarily chose a base year forecast method for Customer Service Operations, Information and Technologies. For the various reasons described in my testimony, a

base year forecast represents the appropriate starting point to calculate TY 2016 O&M expenses for the majority of the activities listed above.

SDG&E DIRECT TESTIMONY OF BRADLEY M. BAUGH
(CUSTOMER SERVICE OPERATIONS, INFORMATION, AND TECHNOLOGIES)

I. INTRODUCTION

A. Summary of Costs

I sponsor the Test Year ("TY") 2016 forecasts for operations and maintenance ("O&M") costs for both non-shared and shared services, business justification for capital projects, and Uncollectible Rate for the forecast years 2014, 2015, and TY 2016, associated with the Customer Service Operations, Information, and Technologies areas for SDG&E. Table 1 summarizes my sponsored O&M costs and Table 2 summarizes the IT capital project costs for which I sponsor the business justification.

TABLE 1

TY 2016 Summary of Total O&M Costs

CS - OPERATIONS, INFORMATION & TECHNOLOGIES			
Shown in Thousands of 2013 Dollars	**2013 Adjusted-Recorded**	**TY2016 Estimated**	**Change**
Total Non-Shared	$57,175	$66,605	$9,430
Total Shared Services (Incurred)	$976	$979	$3
Total O&M	**$58,151**	**$67,584**	**$9,433**

TABLE 2

TY 2016 Summary of Total Capital IT Costs

INFO TECH/TELECOM CAPITAL			
Shown in Thousands of 2013 Dollars			
Categories of Management	**Estimated 2014**	**Estimated 2015**	**Estimated TY2016**
CS - Operations, Information, and Technologies	$**26,743**	$**26,317**	$**15,579**

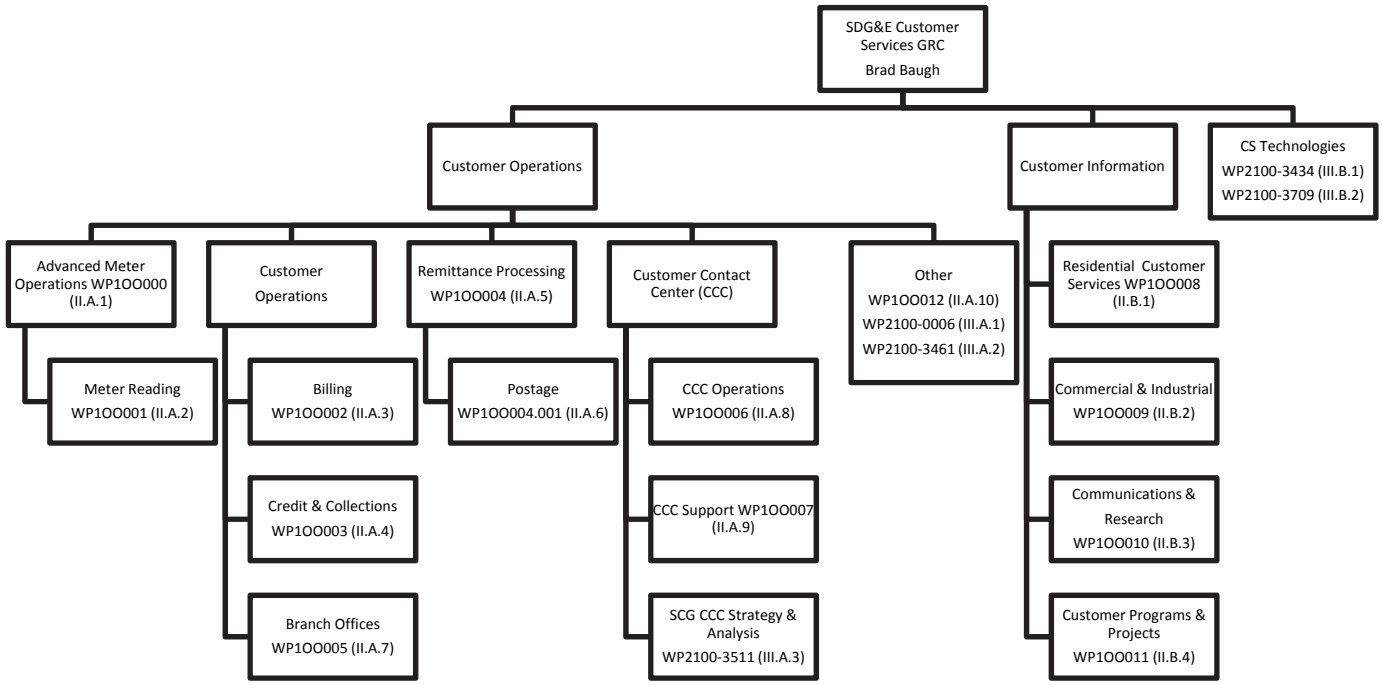
B. Summary of Activities

Customer Service Operations, Information, and Technologies provide safe, efficient, effective, and reliable customer service to SDG&E's population of 3.4 million consumers. SDG&E has won several awards for outstanding customer service and best practices, and we are proud of this strong track record. Examples include the 2012 ServiceOne Award from PA Consulting Group for Excellence in Customer Service as well as the 2012 Best Practices Award for Utility Customer Service - Certificate of Excellence from Chartwell for the Trusted Energy Advisor Program. Customer Service Operations, Information, and Technologies include the following organizations as shown in Figure 1:

FIGURE 1

Customer Service Operations, Information, and Technologies

Testimony Organization



C. Supports SDG&E's Customer Services Goals

SDG&E has a strong commitment to being our customers' trusted energy advisor. Just as technology is transforming the energy industry, SDG&E is taking a leadership role in

transforming its customer experience to better meet the growing and unique needs of the over 3.4 million consumers we serve.

Over the past several years, we have been working diligently to transform the customer experience. We have modernized how we deliver solutions to our customers through targeted channels. We have made it a priority to actively engage customers by listening to them, gathering and incorporating their feedback, modifying processes, and delivering services, solutions, and tools to meet individual customer needs. Our goal is to offer integrated and personalized solutions to our customers, giving them more choice, convenience, and control of how they interact with us and manage their energy use while continuing to maintain safe, efficient, effective, and reliable customer service.

- Choice

SDG&E is dedicated to providing customers with choices in their energy pricing plans and program options that will allow them to select the best rate that meets their lifestyle or business need. The Smart Pricing Program ("SPP") was a major step forward with offering small business (May 2014) and residential (January 2015) customers with new time varying rate options giving customers more choice of when they use and how they pay for energy. To help customers choose the best pricing plan, SDG&E implemented rate comparison tools that customers can use to see which plan works best for them. They can run "what if" scenarios where they modify when and how much energy they use to tailor a plan that best fits their needs. SDG&E is also proactively completing these comparisons for customers and sharing this information through their preferred communication channel to help engage customers in understanding their options and choices.

To achieve this goal, multiple system enhancements are necessary to facilitate offering our customers new and existing pricing plans and programs. These include implementing technology to default medium business customers onto a Critical Peak Pricing rate, enabling residential customers to opt-in to Reduce Your Use ("RYU") dynamic pricing option, enhancing the Net Energy Metering ("NEM") systems to better process and communicate NEM information to customers, and preparing SDG&E's systems to accommodate municipalities to choose Community Choice Aggregation ("CCA").

Finally, SDG&E has several proposals targeted at preparing residential customers for rate reform and the transition to time-of-use pricing plans. As reported by J.D. Power and

Associates, utilities not only need to increase the number of customers who participate in alternate pricing plans, but also get them engaged in saving energy by being more aware of their energy usage and modifying their usage behaviors.[1] SDG&E intends to conduct an extensive customer outreach, communication, and education campaign to prepare and inform residential customers of changes to electric pricing options. As customers receive information about new rate options we must be adequately resourced to respond to customer inquiries and effectively manage and administer these price and service offerings.

- Convenience

Through multiple communication channels, including the smartphone, social media, and other web-based technology, SDG&E is able to connect customers to the right solutions at the right time through the right channels making interacting with SDG&E faster and easier. SDG&E is continuously enhancing its Interactive Voice Response ("IVR") system and My Account website to streamline the experience and expand the available offerings. Today, customers can perform many of the most requested transactions 24/7 on both the web and IVR. These functions include:

- Start, Stop, and Transfer Service
- Bill Payments
- Payment Arrangements and Extensions
- Gas Appliance Checks
- Report an Outage

We have also deployed an industry leading mobile application ("app") in 2012 that allows for bill payments and outage reporting in addition to viewing an outage map, payment locations, videos, energy charts, and a cost calculator. Our mobile app has over 70,000 downloads to date and 60,000 screen views in the month of May 2014.

SDG&E is also making it easier and more convenient for customers to initiate and schedule move requests by offering our popular Mover Services program where customers can sign up for electric and gas service, internet, phone, and cable all in one phone call providing customers with a one-stop shop. Over 6,000 customers a month utilize this service and their ratings of this program resulted in an overall quality of service Excellent rating that is 15% points higher than those who did not receive the service.

[1] J.D. Powers and Associates Customer Impact Report: New Pricing Plans and Options, February 2013.

SDG&E is responding to customer expectations of interacting with us through social media channels. Customers can further interact with SDG&E through our proposed Social Media Advisor via multiple social media channels including Twitter, Facebook, LinkedIn, Google +, Pinterest, etc.[2]

While offering a wide variety of new communication options to customers, SDG&E realizes its customers encompass a wide range of market segments with varying levels of sophistication and communications needs. While some customers prefer information be instantaneously and immediately available, other customers still prefer more traditional communication channels like direct mail as their primary source of communication. SDG&E understands our customers differ on how they want to interact and communicate with us and continues to offer options that address individual needs.

In addition to providing convenience to our customers through our technology offerings, SDG&E has also transformed our Customer Service Representatives ("CSR") in our Customer Contact Center ("CCC") to Energy Services Specialists ("ESS"). This change from CSR to ESS is far beyond a simple position title, but a recognition that the overall role of our employees and customers' expectations have changed. ESS assist and advise customers on transactions, energy management programs, and optional services that will meet individual customer needs, far beyond the traditional role of a CSR completing customer requested transactions.

As energy related issues and options become more complex, such as defaulting customers to Critical Peak Pricing rates, SDG&E found the need to create a special team dedicated to the needs of our Small and Medium Business ("SMB") customers. These customers look to SDG&E to provide them with information regarding energy issues that will directly impact their business, to keep them apprised of all regulatory and rate changes, to share tips on how to save money on their energy bill, and to deliver safety-related messages. Because of the limited resources SMB customers can dedicate to energy issues, many rely on SDG&E to customize and make the myriad of energy rate and tariff options easy to understand and use. The SMB Account Management team works with our SMB customers to provide this service and fulfill this need.

[2] Based on a 2013 report by J.D. Powers and Associates (2013 Electric Utility Residential Customer Satisfaction Study), utility customers who receive information through social media are more satisfied than nearly any other communication channel including the utility's website, direct mail and email.

- Control

Technology has revolutionized the energy industry. Starting with the deployment of Smart Meters, SDG&E customers have detailed access to information about how and when they use energy; what contributes to their energy bill; and most importantly, how they can better manage and control their energy use. As a result, SDG&E has been connecting its customers to an array of smart energy solutions – tools, programs and services – that will help them better understand how they are using energy and assist them in creating their own energy plan to save on energy expenses and reduce energy usage. The Energy Management Tool ("EMT") offers customers a robust suite of energy management solutions which include:

- An overview of their energy use
- Detailed information on their bill history
- A bill analyzer
- An assessment survey to help build a customized energy savings plan
- Robust energy use charts

Other technology-based solutions include the White House initiative of the Green Button. Launched at the end of 2011, SDG&E incorporated the Green Button into its portfolio of solutions, offering customers the ability to download their interval energy use information in a simple and easy-to-use format that can be shared with third parties.

In late 2013, SDG&E implemented our preference center where customers can enroll for event and alert notifications (described below). Customers enroll through SDG&E's My Account website and establish the threshold for each notification and how they would like the notification to be communicated. The following alerts are available through email or text:

- Bill-to-Date/Bill Forecast - customers will receive an alert when their estimated bill reaches a certain amount
- Energy Use Summary - customers will receive an alert when their estimated energy usage (kWh or therms) reaches a certain amount
- Tiered Alert - customers will receive an alert when they reach a new tier
- Event Notification – customers will receive an alert when a Reduce Your Use ("RYU") event is called (also available via our outbound dialer)

A Weekly Energy Use Summary Email is also available. The email contains the customer's current bill-to-date and bill forecast information along with an energy graph showing their last seven days of electric energy use.

At the core of our ability to be our customers' trusted energy advisor and offer choice, convenience, and control are our research and data analytics efforts. SDG&E believes that customer data analytics and research is a critical factor in understanding our customers and successfully targeting the right offering to the right customer at the right time. Through our research we gain greater understanding of customer perceptions of our current offerings, additional services and offerings that are of interest, and how they want to interact and communicate with SDG&E. Our research also allows SDG&E to offer services according to demographically and socio-economically distinct and meaningful attitudinal segments. Customer segmentation enables us to identify hard to reach customers and gain insights to barriers and how those barriers can be overcome increasing the effectiveness and overall success of our activities.

While offering choice, convenience, and control to our customers is important to SDG&E, we are also very mindful of costs. SDG&E recognizes the need to control costs with operational efficiencies and process automation projects. To that end, we are proposing several initiatives within our Customer Operations organization (described throughout my testimony) that target optimizing our staff, assets, and business processes while still providing services that meet our customers' expectations.

The foundation of all of SDG&E's activities is offering safe, efficient, effective, and reliable customer service. This not only includes physical safety proposals like proactively offering gas appliance checks to customers whom we have not visited in the last seven years but also extends into the realm of cyber security and customer data privacy. SDG&E takes customer privacy very seriously and has established an Office of Customer Privacy and designated the Vice President of Customer Services to be SDG&E's Chief Customer Privacy Officer. We are taking steps to more systemically demonstrate our continuously evolving focus on managing risk and have worked diligently to engrain customer privacy into our system designs, relationships with third parties, business controls, and day-to-day work habits. Employees have been trained and are reminded of the importance of customer privacy and their role in ensuring the privacy of our customers' information.

With the initiatives summarized here and proposed in more detail in my testimony, SDG&E has aligned its activities to create an organization focused on partnering with our customers as a trusted energy advisor by ensuring customers have choice, convenience, and control of how they interact with us and manage their energy use while continuing to control costs and maintain safe, efficient, effective, and reliable customer service.

D. Safety/Risk Considerations

The Customer Contact Center ("CCC") is generally the first point of company contact for emergencies. For example, damage to electrical equipment, wires down and gas leak calls are given top priority in the Energy Services Specialists ("ESS") call queue and ESSs are trained to discern the different types of emergencies and triage calls to ensure appropriate field personnel are sent in response to the situation. The CCC also helps to ensure safety during non-emergency situations through issuing customer requested appliance inspection and maintenance orders. This request reflects the costs to sustain safety practices already in place as part of our safety-first culture, as well as increase safety by supporting the scheduling of additional field safety inspections.

E. Support To/From Other Witnesses

The costs set forth in my testimony are impacted by the following:

- Forecasted meter growth as shown in Appendix C is covered in Witness Rose-Marie Payan's testimony (gas customer forecast), Ex. SDG&E-32 and Witness Ken Schiermeyer's testimony (electric customer forecast), Ex. SDG&E-31.
- Information Technology ("IT") capital costs for technology that supports Customer Service Operations and Information are sponsored by Witness Stephen Mikovits, Ex. SDG&E-19; however, I will cover in my testimony the business need for these costs.
- Miscellaneous revenues, including the basis for the forecasted revenues and the projected revenues, are sponsored by Witness Michelle Somerville, Ex. SDG&E-34.
- Costs associated with company fleet vehicles are sponsored by Witness Carmen Herrera, Ex. SDG&E-16.
- Customer Service Field ("CSF") costs are sponsored by Witness Sara Franke, Ex. SDG&E-13; however, I will testify to costs impacting Customer Service Operations and Information associated with two CSF proposals (enhanced customer education and customer outreach safety checks).

- Shared Service Policy and Billing is sponsored by Witness Mark Diancin in Ex. SDG&E-26.
- Major Markets Credit and Collections and Remittance Processing are shared costs with Southern California Gas Company ("SoCalGas") and are covered by Witness Evan Goldman, Ex. SCG-11.

II. NON-SHARED COSTS

A. Customer Service Operations

Non-shared O&M costs represent the costs of labor and non-labor activities required to deliver services exclusively benefitting SDG&E and its customers and do not need to be allocated out to other business units. Table 3 summarizes the total non-shared O&M forecasts for the listed cost categories.

TABLE 3

Non-Shared O&M Summary of Costs

CS - OPERATIONS, INFORMATION & TECHNOLOGIES			
Shown in Thousands of 2013 Dollars			
A. Customer Service Operations	**2013 Adjusted-Recorded**	**TY2016 Estimated**	**Change**
1. Advanced Metering	$8,134	$8,771	$637
2. Meter Reading	$0	$0	$0
3. Billing	$5,073	$5,839	$766
4. Credit & Collections	$2,708	$2,848	$140
5. Remittance Processing	$887	$875	($12)
6. Postage	$4,431	$4,333	($98)
7. Branch Offices	$2,019	$1,734	($285)
8. Customer Contact Center Operations	$9,188	$8,813	($375)
9. Customer Contact Center Support	$2,322	$2,395	$73
10. Other Office	$871	$871	$0
Total	**$35,633**	**$36,479**	**$846**

1. Advanced Metering Operations ("AMO")

Table 4 below summarizes SDG&E's requested TY 2016 expenses for AMO**.**

TABLE 4

Forecast for AMO

CS - OPERATIONS, INFORMATION & TECHNOLOGIES			
Shown in Thousands of 2013 Dollars			
A. Customer Service Operations	**2013 Adjusted-Recorded**	**TY2016 Estimated**	**Change**
1. Advanced Metering	$8,134	$8,771	$637

a. Description of Costs and Underlying Activities

AMO supports the delivery of customer services on premises, responds to customer inquiries, resolves customer problems, and ensures safe, accurate, and reliable metering for all of SDG&E's 2.26 million meters, covering all of San Diego County and South Orange County. AMO underwent reorganization in order to enhance processes and gain efficiencies to improve the effectiveness of the organization. The restructured AMO organization has five distinct areas: Smart Meter Data Operations ("SMDO"), Electric Metering Operations ("EMO"), Quality Assurance & Training, Meter & Network Engineering, and Smart Meter Technical Support ("SMTS").

- Smart Meter Data Operations ("SMDO")

SMDO is responsible for the collection, processing, and validation of daily reads for all gas and electric meters in SDG&E's service territory. The SMDO group is the business owner and operator of the Meter Data Management System ("MDMS"), the Collection Engine ("CE"), and the Operation Reporting System ("ORS"). The primary purpose of the MDMS and the CE is to ensure that complete and accurate meter read data is provided to the billing system. ORS provides various operational reports and is used for meter exception tracking. SMDO is also responsible for SDG&E's legacy automated meter reading application ("MV-90"), which remotely collects data for 3,000 legacy Interval Data Recorder ("IDR") meters. The primary responsibilities of the SMDO team are to provide daily (24/7) operation and monitoring of the supported systems, perform system upgrades, diagnose and troubleshoot the Smart Meter

communication systems, and to provide desktop troubleshooting for meters failing validation, failing communication, and sending events and alarms.

- Electric Metering Operations ("EMO")

EMO is responsible for field activities. A majority of these field activities are related to: setting new meters; testing, removing and changing meters; investigating/troubleshooting "in field" metering problems; and reading and verifying meters. To satisfy California Public Utilities Commission ("CPUC") compliance requirements, EMO tests and verifies existing electric meters on an annual and bi-annual scheduled basis per the CPUC's Direct Access Standards for Metering and Meter Data ("DASMMD") guidelines. In Decision ("D.") 98-12-080, dated December 17, 1998, the CPUC adopted permanent standards for meter products that may be used in California's Direct Access market. These standards were based upon recommendations made to the CPUC in a report by the Permanent Standards Working Group. SDG&E's policy is to follow these standards for SDG&E customers, in addition to Direct Access customers. The following Table 5 shows the testing frequency and customer criteria based on the DASMMD.

TABLE 5

Direct Access Standards for Metering and Meter Data (DASMMD)
Minimum Meter Maintenance and Testing Schedule

Maintenance and Testing Frequency	**Customer Maintenance and Testing Criteria**
One Year Interval	Customer's annual usage of 2 million kWh or higher
Two Year Interval	Customer's annual usage between 720,000 and 2 million kWh
Annual Statistical Sample Plan	Non-residential customer's annual usage less than 720,000 kWh
Residential Meters	Either a formal sampling plan performed annually or tests done upon request and removal, where applicable

Nearly 90% of the electric meters in SDG&E's territory are residential and single phase. EMO supports the investigation of these residential customer meters and replaces meters when necessary. EMO also performs single phase meter testing, manual meter reads, and meter read verifications.

- Quality Assurance & Training

The Quality Assurance ("QA") & Training group is responsible for identifying potential safety issues at customer premises, validating field employees adhere to department policies and procedures, and certifying that field technicians are trained properly. The QA & Training group has three primary areas of responsibility: Meter and Instrument Shops, Meter Technician Auditing (field and desktop), and Meter Technician Training.

- Meter and Network Engineering

Meter and Network Engineering is composed of two separate, but interdependent groups. These two workgroups are Electric Metering Engineering ("EME") and Meter and Network Reliability ("MNR"). EME's primary responsibilities include determining meter standards and specifications, developing meter program configurations, and evaluating and approving new electric metering products and equipment. The primary responsibilities of the MNR workgroup consist of the design and optimization of the Smart Meter Radio Frequency Local Area and Wide Area networks, performing technical assessments of meter and network reliability, and conducting testing and evaluations of improved technologies to support the evolution of the Smart Meter and the CE system.

- Smart Meter Technical Support ("SMTS")

The SMTS group is comprised of metering system technical experts and focuses on providing technical support to AMO and various external customers. The primary responsibilities of SMTS include creating data queries, developing metrics, analyzing data, building reports, and automating existing manual processes to enhance process effectiveness. In addition, SMTS also performs end-to-end testing of all the Smart Meter related systems to validate that meter data is accurate and functionality is unaffected when new firmware is released, new configurations are built, and new Smart Meters are approved for deployment.

The calculations for the estimated expenses are included in workpapers, Ex. SDG&E-14-WP 1OO000.

b. Forecast Method

In the TY 2012 GRC, a zero-based forecast method was used for labor and a 5-year historical average was used for non-labor for AMO. I also chose to use a zero-based forecast method for labor and chose a base year forecast method for non-labor because Smart Meter is still early in its lifecycle, and therefore historical data representing the full scope of Smart Meter

O&M order volumes and activity levels are limited. Furthermore, the manual meter reading function has been transitioned to AMO starting in year 2014 (related to hard-to-access meters, complex billing-related meters, etc.) and thus adds activities to AMO that were not present in base year 2013 and recent historical data.

c. Cost Drivers

Table 6 summarizes the changes in AMO estimated expenses for TY 2016. See supplemental workpaper 1 attached to Ex. SDG&E-14-WP 1OO000 for a reconciliation of the AMO TY 2016 zero-based labor forecast to the 2013 Adjusted Recorded.

TABLE 6

Changes in AMO TY 2016 Estimated Expenses

AMO	TY 2016 - 2013 Change ($000)			
	Labor	Non-Labor	Total	FTEs
Smart Meter Extended Warranty		$22	$22	
Testing Hardware/Firmware Releases	$100		$100	1.0
Process Improvements – duplicate field visits	($64)		($64)	(0.5)
Process Improvements – coaching/training to improve performance	($185)		($185)	(2.0)
Process Improvements – redistributing workload	($195)		($195)	(2.0)
Meter Reading	$117		$117	1.8
Resumption of Field Compliance and Other Maintenance Work	$862		$862	8.5
Non-Labor Adjustment		($79)	($79)	
Capital Project Impacts – SMOC-EM Capital Project #13031 labor savings	($100)		($100)	(1.0)
Capital Project Impacts – SMOC-EM Capital Project #13031 annual software maintenance and service fees		$159	$159	
Total TY 2016 Impact	**$535**	**$102**	**$637**	**5.8**

i. Smart Meter Extended Warranty

I am requesting $22,000 in non-labor above the 2013 base year to extend the warranty for Smart Meter network devices from years 6-10 (currently Smart Meter equipment warranty covers years 1-5). Network devices are used to communicate information between the Smart Meter endpoint device (meters) and SDG&E's back office systems (collection engine). The original manufacturer's Smart Meter equipment warranty for network and endpoint devices will expire in 2014; however, Smart Meters are still early in their life cycle. There is sufficient

evidence over the past three years that firmware releases have increased the reliability of our endpoint devices causing failure rates to fall. Our data indicates that failure rates will remain low for years 6-10 and likely into the future. Based on a risk assessment and analysis of various replace/repair options, SDG&E is proposing renewal of the network device warranty for years 6-10. SDG&E is not recommending renewal of the endpoint device warranty for years 6-10. The current failure rate of electric and gas endpoint devices would have to double from the current failure rate each year for the next five years before the repair/replacement would exceed the cost for warranty. The cost for the network device warranty renewal is considerably less than the repair or replacement cost at the current failure rate of 7.8% which would translate into a $1,100,000 annual cost.[3]

ii. Testing Hardware/Firmware Releases

I am requesting $100,000 in labor above the 2013 base year for a Principal Engineer to develop and manage a repeatable process to test and document hardware changes and new firmware upgrades to ensure critical functionality is verified prior to pushing to all Smart Meters (endpoint device). Given the full Smart Meter extended warranty will not be purchased on endpoint devices and only on network devices as described in the previous section, a process to test and document future hardware changes and new firmware upgrades is crucial to minimize future meter failures and repair/replacement costs of Smart Meters. A fully deployed Smart Meter network makes proactive issue identification a necessity. Having a process of testing and documenting all the hardware changes and firmware upgrades will provide a way to effectively evaluate the current meter population, understand what can cause a meter failure, and try to minimize the condition that causes the failure. If an issue is not identified it could result in significant endpoint failures during new firmware and hardware deployment. With almost all of SDG&E's meter population being replaced with Smart Meters, the impact of a single anomaly can have significant negative impacts resulting in "many" meter failures. The Principal Engineer will develop and manage the repeatable testing process, which will be a part of Electric Metering Operations' continuous improvement and Quality Assurance program for as long as meters are deployed, new hardware is being approved, and endpoint firmware upgrades are implemented.

[3] See supplemental workpaper 2 attached to Ex. SDG&E-14-WP 1OO000 for the Smart Meter extended warranty cost comparison versus failure rate.

iii. Process Improvements

I am reflecting a reduction of ($64,000) in the TY 2016 labor forecast for overtime which is equivalent to a 0.5 full-time employee ("FTE"). Several process improvements are being implemented to reduce duplicate field visits. First, Electric Metering Operations will track and report on the root cause of repeat visits to improve maintenance practices and first-visit resolution. To help ensure the reporting and tracking is accurate, technicians will be provided additional training on selecting the proper incomplete order code. Second, employees will be provided additional training on selecting the correct order to avoid Single Phase Technicians from going to field to work orders they are not certified to perform. In these situations, the Single Phase Technicians must abandon the work and the work is reissued to a qualified technician. Finally, in some cases, two separate groups submit work orders for the same location and the duplication is not caught; this is being resolved by centralizing order creation and aligning with the customer's bill cycle.

I am reflecting an additional reduction of ($185,000) in the TY 2016 labor forecast for 2.0 FTEs related to process improvements. SDG&E is developing management operating performance reports that allow for daily, weekly, and monthly tracking of three primary metrics: (1) average onsite minutes, (2) average drive time, and (3) average % incomplete per job by order type, employee classification and employee name. This analysis and employee coaching will improve performance and enable us to complete the same volume of work with two fewer employees.

I am reflecting another ($195,000) reduction in the TY 2016 labor forecast for 2.0 FTEs. Specifically, a Project Manager ($109,000) position has been eliminated whose responsibilities included responding to requests for data, running queries, and other special projects. These responsibilities have been absorbed by the Smart Meter Technical Support group. The remaining ($86,000) is for the elimination of a Field Advisor. The responsibilities of this position included communicating new or updated company procedures and practices to the field and office employees (i.e., best practices, safety practices, and ergonomic practices). These tasks will now be handled by the field supervisors and team leads. Additionally, support from the Customer Services Field Safety Advisor will also support AMO field personnel.

iv. Meter Reading

I am requesting $117,000 in labor above the 2013 base year for 1.8 FTEs to work read/verify orders which were previously performed by the Meter Reading department.[4] Under certain conditions, SDG&E must verify a meter number and read data (register and interval consumption data) from meters in order to process a customer's bill. These conditions can occur when there is a suspected problem with the meter, a performance issue with the meter, wireless network preventing the meter from sending the consumption data over the network, or when there is not a Smart Meter technology solution available. Read/verify orders will increase in TY 2016 by approximately 9,400 orders compared to 2013 actuals, which were previously paid for by Meter Reading.

v. Resumption of Field Compliance and Other Maintenance Work

I am requesting $862,000 in labor above the 2013 base year for 8.5 FTEs to work compliance testing orders and customer generated testing orders. In 2013 we completed approximately 4,000 compliance testing orders. In TY 2016 the compliance testing orders will increase to approximately 7,000 orders annually (an increase of 3,000 orders). There are four primary reasons for increasing the number of meters we test.

First, this is important as Smart Meters have been deployed throughout our entire service territory and customers have immediate availability to consumption data and online energy charts. Customers make choices based on this consumption information (energy pricing plans, energy programs, etc.) and the increased number of meter tests will ensure we are measuring energy data accurately.

Second, the current CPUC standards for fast and slow meters is 2.0%, however this has been in existence for many years and is a standard developed for legacy meters not Smart Meters. The Smart Meters we purchase from vendors come with a service level agreement to have meters within 0.5% and 0.2% accuracy level and to also meet ANSI C12.20 Standards. In order to ensure this new technology is performing at higher standards than the legacy meters, we need to increase our sample test size.

[4] SDG&E's Meter Reading Department was eliminated in 2012 as the result of the implementation of Smart Meters. See A.05-03-015, Application of San Diego Gas & Electric Company for Adoption of an Advanced Metering Infrastructure Deployment Scenario and Associated Cost Recovery and Rate Design.

Third, because Smart Meters are very different than the legacy meters, we now test for more than just accuracy errors; we test for firmware and hardware errors, battery errors, etc. Increasing the sample size will provide a higher level of confidence that we detect issues that might be occurring for a certain meter type.

Finally, other testing orders which are customer generated are forecasted to increase from approximately 1,200 orders in 2013 to approximately 2,000 orders in TY 2016. The forecasted increase is due to generally expected higher rates for the majority of our customers. As a result of these rate increases, we expect more customers to call questioning a high bill and requesting a field read to ensure the consumption was collected accurately. We also expect more requests for field reads resulting from customers participating in new time varying rate options.

As a result of the above activities, AMO is requesting 7 company vehicles in 2014 in order for these employees to travel to customers' homes on a daily basis.[5]

vi. Non-Labor Adjustment

AMO's TY 2016 forecast reflects a ($79,000) reduction in non-labor for SMDO contract labor. The position was eliminated in 2013; therefore, an adjustment was made to remove the cost. The ($79,000) adjustment from the 2013 base year was for contractors who were assisting the SMDO team during the transition of Smart Meter business responsibilities from the vendor to SDG&E. The specific duties for the contractors were to write/update the Smart Meter Standard Operating Procedures for AMO. Once this was accomplished, we no longer needed the resources.

vii. Capital Project Impacts

The Smart Meter Operations Center–Exception Management ("SMOC–EM") capital project (Project #13031) will result in 1.0 FTE reduction in the amount of ($100,000). A Smart Meter network comprised of approximately 1.4 million electric Smart Meters and 860,000 gas modules has been created to improve operational efficiency and enhance the customer experience through timely, accurate data collection. The current Smart Meter Operation does not have an adequate system to optimize Smart Meter network performance that will help drive future strategies to provide customers even more information and choices regarding their energy consumption. The SMOC–EM project will provide a solution that will improve Advanced Metering Operations operational efficiencies and reduce device downtime by providing analysts

[5] The additional fleet costs can be found in the Direct Testimony of Carmen Herrera (Ex. SDG&E-16).

with intelligent data (visual monitoring of the entire Smart Meter network and device connectivity issues) rather than just raw data from reports. The current first level troubleshooting requires end users to spend on average 15-20 minutes per meter to identify a resolution. The SMOC-EM tools will reduce this time down to less than 3 minutes per meter. This information is critical for managing exceptions and troubleshooting processes aimed at optimizing the network performance. It will provide the ability to display meaningful results for near real-time situational awareness and enhanced visualization of network conditions. The system applies advanced analytics at the end of each daily interrogation cycle, reduces false-positives, and highlights escalating issues. This allows for quicker detection of the meters which have lost network connectivity, and provides a determination as to whether SDG&E can correct the issue in the back office or dispatch a system analyst to the field to troubleshoot and correct the problem.

In addition to a reduction in labor costs, I am also requesting $159,000 above the 2013 base year for the annual software maintenance and service fees resulting from the implementation of the software solution for SMOC-EM capital project.

2. Meter Reading

Table 7 below summarizes SDG&E's requested TY 2016 expenses for Meter Reading.

TABLE 7

Forecast for Meter Reading

CSOO - CS – OPERATIONS & INFORMATION			
Shown in Thousands of 2013 Dollars			
A. Customer Service Operations	**2013 Adjusted-Recorded**	**TY2016 Estimated**	**Change**
2. Meter Reading	$0	$0	$0

SDG&E's Meter Reading Department was eliminated in 2012 as the result of the implementation of Smart Meters (see footnote 4). Section II.A.1.c.iv of my testimony describes the costs for ongoing meter reading activities in Advanced Metering Operations.

3. Billing

Table 8 below summarizes SDG&E's requested TY 2016 expenses for Billing.

TABLE 8

Forecast for Billing

CS - OPERATIONS, INFORMATION & TECHNOLOGIES			
Shown in Thousands of 2013 Dollars			
A. Customer Service Operations	**2013 Adjusted-Recorded**	**TY2016 Estimated**	**Change**
3. Billing	$5,073	$5,839	$766

a. Description of Costs and Underlying Activities

Billing Operations expenses cover the cost of calculating customer bills and maintaining accurate customer account information. Billing Operations at SDG&E underwent reorganization in early 2013 in order to realign the workforce to achieve synergies, maintain a strong customer focus, and to further prepare for the increase in customers billed off of interval data. The restructured Billing Operations organization has three distinct areas: Customer Billing, Billing Operations Support, and Customer Billing Resources.

- Customer Billing

The newly formed Customer Billing group essentially combined two previously existing workgroups into one team. Previously, one workgroup was responsible for residential and small commercial billing while another workgroup was responsible for large commercial and industrial ("C&I") billing. Customer Billing activities generally fall into two categories: exception processing and billing for large C&I and other specialized customers.

Before being mailed, all bills are subjected to an automated validation process to ensure overall accuracy and alignment with historical usage patterns. Most billing statements successfully pass the validations and are automatically issued. However, a small percentage of bills fail the validations and require further review. Similar to the bill validation process, completed field service orders are also validated to ensure the accuracy of customer account data. Those orders that fail the validations cannot be routinely processed and must be handled manually for resolution.

Billing for large C&I and other specialized customers includes calculations for distributed generation, monthly gas balancing, and various special contract arrangements.

Processing bills for these customers is complex, beginning with the validation of measurement data and subsequently proceeding into bill calculations. Due to the unique nature of each arrangement, the billing process necessarily involves manual intervention in order to ensure full regulatory and tariff compliance.

- Billing Operations Support ("BOS")

BOS is responsible for providing technical and functional support for Billing Operations at SDG&E. This includes interaction with Information Technology, providing support for the implementation of system changes needed for new billing rates as well as exceptions to the current billing process, rate and pricing configuration, testing and maintenance, and project coordination and support. BOS also provides guidance and support with using SDG&E's Customer Information System ("CIS") to perform complex billing activities as well as troubleshooting technical issues.

Another area of BOS responsibility is the verification of all billing attributes and management of the billing set-up process associated with customer accounts. This includes updating and maintaining billing attributes, such as rates and baseline codes, and performing billing set-up tasks for both routine accounts and specialized contract agreements and other programs such as Net Energy Metering, Virtual Net Metering, Electric Vehicles, Critical Peak Pricing, Direct Access, Core Aggregation Transportation, Revert to Owner, Group Bill, and Smart Meter Opt-Out. Separating these set-up tasks from the monthly billing activities performed by the Customer Billing group allows for greater focus to ensure that all attributes are set-up correctly and reviewed in a comprehensive manner.

- Customer Billing Resources

All training, quality assurance, and communication functions for Billing Operations were consolidated with the newly formed Customer Billing Resources group. This team is responsible for developing and delivering training, creating and maintaining policies and procedures, performing audits and quality assurance checks, and developing billing communications for external customers as well as internal staff. Customer Billing Resources work continuously with the leadership team to define and develop long-term strategies for providing staff support as overall billing complexity increases and specialized programs grow and evolve at a rapid pace.

The calculations for the estimated expenses are included in workpapers, Ex. SDG&E-14-WP 1OO002.

b. Forecast Method

In the TY 2012 GRC, a 5-year historical average forecast method was used for Billing Operations. I chose to use a base year forecast method for this TY 2016 GRC because the business has changed significantly due to Smart Meter deployment and is now in a new post-deployment era. Starting in 2012, positions were filled with higher level employees to handle the additional complexities of interval data billed accounts, as forecasted in the Smart Meter business case. Furthermore, 2013 non-labor costs are more reflective of the costs needed to support increasingly complex billing activities. Therefore, the base year provides a reasonable starting point for future expenditures.

c. Cost Drivers

Table 9 summarizes the changes in Billing estimated expenses for TY 2016.

TABLE 9

Changes in Billing TY 2016 Estimated Expenses

Billing	TY 2016 - 2013 Change ($000)			
	Labor	Non-Labor	Total	FTEs
Net Energy Metering	$241	$10	$251	4.0
New Rate Options and Programs	$397	$13	$410	5.0
Increased Complexity of Activities	$83	$3	$86	1.0
Capital Project Impacts - Off But Registering Capital Project #14005 labor savings	($54)	($3)	($57)	(1.0)
Capital Project Impacts - Centralized Calculation Engine Capital Project #14013 labor costs	$73	$3	$76	1.0
Total TY 2016 Impact	**$740**	**$26**	**$766**	**10.0**

i. Net Energy Metering

I am requesting $241,000 in labor and $10,000 in associated non-labor employee expense above the 2013 base year for four Associate Billing Analyst positions (one in 2014, two additional positions in 2015, and one additional position in TY 2016) to support a 40% growth rate in Net Energy Metering ("NEM") billing.[6] NEM billing applies to customers who have their own alternative source of energy, such as wind, solar or cogeneration. These customers are metered to record energy flowing both to and from their location, and they are billed on the net

[6] Supplemental workpaper 1 attached to Ex. SDG&E-14-WP 1OO002 details the NEM program growth and associated employee increases.

amount of energy consumed based on the rate in effect during each time period. NEM billing is labor intensive due to the significant growth rate and the complexity and variation of these rates. There are currently four different NEM rate options including the aggregation of multiple NEM service points adopted by Senate Bill 594 which requires a unique cumulative calculation.[7] The utilities continue to see changes with NEM billing including recent CPUC D.14-03-041 which established a transition period of 20 years for existing NEM customers as of July 1, 2017 (or earlier if the 5% NEM cap is reached) and D.14-05-003 which permits energy storage devices to be paired/interconnected with NEM facilities and, as such, receive the benefits of NEM. The CPUC will likely open a new proceeding during the summer 2014 to develop a NEM successor tariff which could very well be vastly different from the current NEM billing mechanism. The ongoing changes and growth of NEM continues to impact Billing's resource requirements. In 2013 alone, SDG&E averaged over 900 new NEM interconnections per month. According to the Solar Energy Industries Association, 2013 was another record year for the U.S. solar industry with a 41 percent increase in deployment over installation levels in 2012 making solar the second largest source of new electricity generating capacity.[8] Thus, a 40% growth rate is reasonable based on the historical trend in San Diego.

ii. New Rate Options and Programs

On May 1, 2014, SDG&E began offering small business customers new time varying rate options wherein the amount customers pay for each unit of electricity varies over the course of a day. For residential customers, the new rate options will be offered beginning January 1, 2015.[9] Such rates are intended to motivate customers to reduce their electricity usage during peak electricity demand by more closely reflecting the higher costs of electricity at those times. To help customers to better understand the new rate options SDG&E implemented an online Energy Management Tool ("EMT"). The EMT is a third party vendor tool available to customers through SDG&E's My Account[10] that was developed to provide residential and small commercial customers the ability to, among other things, perform rate analysis and set goals and

[7] The four rate options include Schedule NEM for residential and commercial customers, Schedule NEM-FC for fuel cells, Schedule NEM-V for multi-tenant and multi-meter properties and Schedule VNM-A for multi-family affordable housing. These rate schedules can be found at http://www.sdge.com/electric-tariff-book-miscellaneous-rates.

[8] http://www.seia.org/research-resources/solar-industry-data.

[9] See SDG&E Advice Letters 2577-E and 2577-E-A approved by the Energy Division on May 5, 2014.

[10] My Account is a secure website for customers to access account information, view and manage energy usage, complete online bill payments along with a growing list of self-service transactions.

alerts for the new time varying rates in addition to viewing energy usage, bill-to-date and bill history data.

The Smart Pricing Program ("SPP") was established in 2010 to implement the new rate options, customer tools, and other provisions adopted by the CPUC.[11] The CPUC approved funding of the SPP through 2015 and authorized SDG&E to request funding for post-2015 operational costs as part of a future GRC.[12] Throughout my testimony I address the need for post-2015 operational costs related to the new time varying rate options (hereafter referred to as "SPP rates").

I am requesting $397,000 in labor and $13,000 in non-labor for associated employee expense above the 2013 base year for five billing employees to continue to support residential and small business customer participation in SPP rates. These resources are currently funded through the SPP and will transition to O&M in TY 2016.

Three of the five additional billing resources are Business Systems Analysts ($251,000 labor and $8,000 non-labor) who provide technical support and rate configuration for SDG&E's online EMT as well as support for other SPP functionality described below. The EMT, which averaged more than 32,000 unique customer visits per month in 2013, is critical in order for customers to fully understand their energy usage and to ensure overall success of the SPP rates. The aforementioned resources are responsible for testing the validity of system calculations any time prices are updated or new rates are introduced. These resources also provide subject matter billing system expertise for functionality outside of the EMT, such as bill protection, snap credits, and shadow billing[13] for customers who elect the new rate options. If these positions are not continued, this will cause configuration delays and increased errors in the crucial calculations used by customers to make financial decisions regarding rate options and potential cost savings.

The remaining $146,000 in labor and $5,000 in non-labor funds two Billing Analysts for enrollments and rate change requests related to the SPP rate options. This involves manual review and completion of exceptions resulting from the automated rate change process where the

[11] See CPUC D.12-12-004 in SDG&E's Dynamic Pricing Application (A.10-07-009).
[12] See CPUC D.12-12-004, pp. 16-17 and Ordering Paragraph 15.
[13] Bill protection, shadow billing and snap credits are complex billing attributes. See special conditions 1, 15 and 16, respectively, of SDG&E rate schedule EECC-TOU-A-P for detailed descriptions of these attributes applicable to the SPP rates (http://www.sdge.com/electric-tariff-book-commodity-rates).

exception rate is expected to be approximately 3-5%.[14] These resources are also responsible for handling escalated customer inquiries regarding the rate change process. If these positions are not continued, there will be delays in the account setup and monthly billing process for new rates.

iii. Increased Complexity of Activities

I am requesting $83,000 in labor and $3,000 in non-labor for associated employee expense above the 2013 base year for an additional Project Advisor to help train all 68 current frontline billing employees which is forecasted to increase to 72 employees in TY 2016. Training is an important contributor to the department's key objectives of accurate and timely billing. As described in the previous section, the implementation of specialized billing programs is growing at a rapid rate and is constantly evolving, driven by a growing number of accounts billing with interval data and time-of-use rate ("TOU") structures. The growth rate of interval billing is forecasted to average 89% annually, from 34,755 meters at the end of 2013 to 220,557 in TY 2016. The primary factors driving this increase are the growth of NEM and Electric Vehicle TOU rates, and the new SPP rates, as described above.[15] An additional resource is needed to help continually train all frontline billing employees on these specialized processes and to assist with quality assurance to maintain accurate and timely billing. In addition to delivering training, this resource will be responsible for developing training material, creating job aids, and publishing bulletins when information needs to be disseminated quickly. Formal training will be provided on a regular, ongoing basis, forecasted to occur two or three times per week, as new billing programs are implemented and also for refresher purposes when the quality assurance process identifies a particular need for employee coaching. If this position is not filled, the billing training program will not be able to sustain the forecasted levels of training required. This would result in increased billing errors and the subsequent need for sending out corrected bills (i.e., rebilling) which can lead to customer confusion. This would also lead to delayed bills due to decreased efficiency levels caused by insufficient training.

[14] See supplemental workpaper 2 attached to Ex. SDG&E-14-WP 1OO002 detailing SDG&E's exception handling forecast for the SPP rates.

[15] See supplemental workpaper 3 attached to Ex. SDG&E-14-WP 1OO002 showing the rapid growth of interval billing meters from 2011 through TY 2016.

iv. Capital Project Impacts

The implementation of the Off But Registering ("OBR") Billing Enhancement capital project #14005 will result in a 1.0 FTE reduction. The FTE reduction reflects a ($54,000) reduction in labor and a ($3,000) reduction in associated non-labor for a Customer Accounts Associate in Billing Operations. OBR occurs when energy consumption is recorded on a company meter even though system records indicate that the premise is inactive. The existing OBR process involves many manual tasks such as reviewing reports, making phone calls, and initiating field visits to determine the cause for consumption and who is responsible. The OBR Bill Enhancement capital project will automate monitoring and identification of OBR scenarios, enable automated notifications to be mailed and/or delivered to premises, and include decision logic to leverage Smart Meter remote disconnect functionality when possible. This increased automation will alleviate the manual work involved in the existing OBR process.

I am requesting $73,000 in labor and $3,000 in non-labor for associated employee expense above the 2013 base year for one Business Systems Analyst to support the implementation of the Centralized Calculation Engine ("CCE") capital project #14013. The first phase of this project will provide a single calculation engine to drive rate calculation, rate comparisons, modeling, pricing, and testing of rates. Currently there are multiple tools across different business units, both manual and automated, which utilize inconsistent data and methodologies to predict, model, and demonstrate rate scenarios and use cases. The CCE capital project will implement a single engine to automate rate and complex billing calculations and utilize consistent data sets from standard data sources, which can then be presented to internal users on demand, in near real time, and at various portals. This tool will not replace the presentment of these calculations but may become a data source for these calculations. The need for this functionality will only increase as rates continually change and become more complex at a rapid pace. Billing Operations will need an additional resource to support the configuration and maintenance of the CCE which will be required any time prices change or new rates are introduced. In addition, this resource will help support other internal resources in running calculations for various "what-if" scenarios and ad-hoc customer requests. The resource will also be responsible for providing training and administrative system support for the CCE. With over 65,000 rate updates per year and with new rates frequently added, this position is necessary to avoid configuration delays and the potential for increased errors in the calculations used by

customers and internal resources to make financial decisions regarding rate options and potential cost savings.

4. Credit & Collections

Table 10 below summarizes SDG&E's requested TY 2016 expenses for Credit & Collections.

TABLE 10

Forecast for Credit & Collections

CS - OPERATIONS, INFORMATION & TECHNOLOGIES			
Shown in Thousands of 2013 Dollars			
A. Customer Service Operations	**2013 Adjusted-Recorded**	**TY2016 Estimated**	**Change**
4. Credit & Collections	$2,708	$2,848	$140

a. Description of Costs and Underlying Activities

Credit and Collections consists of Credit and Collections, Customer Payment Services, and Meter Revenue Protection.

- Credit and Collections

  Credit and Collection activities encompass all traditional credit office functions:

  - Credit policy and procedure development and review;
  - Management reporting and analysis;
  - Management of outside collection agencies;
  - Skip tracing (research to locate a customer after a service termination and the final bill reaches delinquent status) and final bill collection;
  - Collection of delinquent residential and small commercial accounts[16]; and
  - Bankruptcy processing.

Regular analysis and reporting of key credit metrics drive credit risk guidelines (i.e., account securitization, bill extension and payment arrangement terms as well as individual

[16] Medium and large commercial customer accounts are managed by SoCalGas. See Direct Testimony of Evan Goldman (Ex. SCG-11, section III.B).

customer credit decisions). These latter activities are critical in assessing credit risk and attempting to reduce bad debt exposure for the benefit of all SDG&E customers.

- Customer Payment Services

Customer Payment Services handles all exception payments and performs daily reconciliation and general ledger posting of payments from all sources. An exception payment is defined as a payment that cannot automatically post in the Customer Information System. Examples include customers providing incorrect SDG&E customer account numbers or payments returned for insufficient funds. Prior to posting in the general ledger, a reconciliation of payments and credits (return items, fees, etc.) posted in the CIS system and the respective SDG&E bank account are performed.

- Meter Revenue Protection ("MRP")

MRP investigates leads associated with potential customer energy theft and if appropriate remediate safety issues resulting therefrom. Additionally, MRP performs "credit assists." Credit assists typically result from a new customer attempting to sign for service at a premise immediately after disconnection for non-payment, and thus MRP performs a field visit to confirm a change in residency/confirm customer identification.

The calculations for the estimated expenses are included in workpapers, Ex. SDG&E-14-WP 1OO003.

b. Forecast Method

In the TY 2012 GRC, a 5-year historical average forecast method was used for Credit and Collections. I chose to use a base year forecast method because in 2012 MRP resources transitioned from Smart Meter to Credit and Collections with 2013 representing the first full year of post-Smart Meter deployment.[17] Furthermore, in 2013, new final bill collection and collection agency management software systems were implemented. The latter facilitates the placement of debts owed to SDG&E with collection agencies in a tiered process (primary, secondary, tertiary placements) as well as provides the ability to produce collection agency scorecards that facilitate the efficacy and quality of collection agency efforts. Therefore, the base year provides a reasonable starting point for future expenditures.

[17] These activities were funded through SDG&E's Advanced Metering Infrastructure Balancing Account.

c. Cost Drivers

Table 11 summarizes the changes in Credit & Collections estimated expenses for TY 2016.

TABLE 11

Changes in Credit & Collections TY 2016 Estimated Expenses

Credit & Collections	TY 2016 - 2013 Change ($000)			
	Labor	Non-Labor	Total	FTEs
Meter Revenue Protection	$133	$5	$138	2.0
Process Improvements – account reconciliation processes	($53)		($53)	(1.0)
Process Improvements – collection of delinquent commercial accounts	($113)		($113)	(2.0)
Customer Growth	$62	$15	$77	1.2
Collection Systems – new collection systems software licensing costs		$33	$33	
Collection Systems – reduction for old collection system licensing costs		($32)	($32)	
Collection Systems – new collection system one-time implementation set-up/configuration costs		($36)	($36)	
Collection Systems – annual software training and vendor assisted system changes/upgrades		$10	$10	
Collection Systems – collection agency commission payments		$90	$90	
Other – final bill notices		$14	$14	
Other – 48 hour disconnection notice for vulnerable customers		$12	$12	
Total TY 2016 Impact	**$29**	**$111**	**$140**	**0.2**

i. Meter Revenue Protection

I am requesting $133,000 in labor and $5,000 in non-labor for associated employee expense above the 2013 base year for two MRP Specialists to perform investigations of energy diversion, meter tampering, and other sources of fraud or energy theft.

SDG&E has several mechanisms through which potential energy theft leads are identified, including but not limited to, meters that are off in our records but continue to register

usage ("OBR")[18], unusual usage patterns, zero consumption on an active account, and meters that record a tampering signal. In addition, MRP receives leads from field technicians and customers. In 2013, SDG&E received approximately 6,700 leads of which 2,127 were investigated by the existing team of four MRP Specialists. The following Table 12 depicts the total leads worked, the incidence of confirmed theft, the dollars associated with theft cases billed, and confirmed theft not billed.

TABLE 12

Energy Theft Investigations

Line No.	Description	2012	2013
1	Number of Leads	*	6,700
2	Leads Investigated	1,909	2,127
3	Verified Energy Theft	846	1,048
4	Energy Theft Cases Billed	$394,619	$628,120
5	Confirmed Theft Not Billed	$277,081	$388,160

* Prior to 2013 SDG&E did not track the total number of leads.

Each MRP Specialist costs an average of $69,667 per year. Allocating energy theft cases billed and the confirmed theft not billed in 2012 and 2013 to the existing four MRP Specialists yields an average theft billed/avoided amount per specialist of $168,000 in 2012 and $254,000 in 2013.[19]

The MRP Specialists work and travel throughout SDG&E's service territory investigating MRP leads. Therefore, the use of company vehicles that are reliable and well-maintained is necessary. Thus, SDG&E is requesting two additional company vehicles in TY 2016.[20]

ii. Process Improvements

Credit and Collections TY 2016 forecast reflects a ($53,000) reduction in labor for one full-time Associate Customer Payments Specialist due to the redesign of processes that allow

[18] SDG&E will be automating the process for identifying and investigating OBR situations where customers can be remotely disconnected through Smart Meter technology (see capital project #14005). The MRP Specialists will continue to investigate leads on commercial accounts as they do not have remote disconnect and residential accounts that do not have a Smart Meter.
[19] $168,000 and $254,000 in Table 12 represent the total of lines 4 and 5 divided by four MRP specialists.
[20] The additional fleet costs can be found in the Direct Testimony of Carmen Herrera (Ex. SDG&E-16).

for efficiencies to be achieved in the daily and monthly account reconciliation processes, such as reducing redundant data entry.

Credit and Collections TY 2016 forecast reflects a ($113,000) reduction in labor for two full-time Account Management Specialists due to process redesign and elimination of manual processes in the collection of delinquent commercial accounts. In one example, Credit and Collections generated communications related to delinquent large commercial accounts to appropriate account executives. The process was streamlined such that the account executives have direct access to these reports.

iii. Customer Growth

I am requesting $62,000 in labor and $15,000 in non-labor for associated employee expense due to increased credit activities resulting from customer growth. In order to process and resolve the increased activities, such as skip tracing and final bill collection, additional labor (1.2 FTEs) is being requested.[21]

iv. Collection Systems

In September 2013, SDG&E transitioned from one collection and agency management system to two separate systems. SDG&E partnered with Debt Next to manage the entire lifecycle of charged off accounts including the transmittal of accounts to third party collection agencies, work effort and recovery analysis and statistics, and complete collection agency performance reporting. SDG&E also partnered with Ontario Systems to implement a new in-house collection system. The Ontario system allows for shorter transaction times, daily reporting, and better employee resource management.

Credit and Collections TY 2016 forecast reflects several adjustments to non-labor related to the implementation of the new collection systems. Following are the adjustments that have been made to the forecast**:**

- $33,000 increase for incremental software licensing costs for the new collection systems;
- ($32,000) reduction for licensing costs for SDG&E's old collection system that was included in the 2013 base year;
- ($36,000) decrease to reflect the one-time vendor implementation costs to set-up and configure the new system that was included in the 2013 base year; and

[21] Supplemental workpaper 1 attached to Ex. SDG&E-14-WP 1OO003 details the customer growth calculation.

- $10,000 increase for annual software training and vendor assisted system changes and upgrades.

I am also requesting a $90,000 increase in non-labor above the 2013 base year for collection agency commission payments. In the past, SDG&E only sent delinquent final bills to one of two collection agencies for the entire duration of their statutory collection period. The new agency management software allows us to recall accounts after a set period of time (currently nine months) and then allows for the referral of those accounts, if still not collected, to a secondary agency. The secondary agency then works the accounts for a period of time, currently established at one year after referral date. If the unpaid balance is still not collected, SDG&E has the ability to send the account to a tertiary agency for collection. Since these accounts will no longer get stale in a single agency for the life of their collection period, we expect that we will see a lift in recoveries over the course of time of about 20-30%. This is due to the aforementioned process improvements noted above and is also due to the fact that 2013 recoveries were uncharacteristically low as only one agency was used for new placements during 2013 until the new systems were implemented. Therefore, even though our collection agency commissions on primary agency collections decreased approximately 30% in 2013[22], we expect competition among the newly added primary agencies as well as the additional collections from the secondary and tertiary agencies, whose rates are at and above the rates of our previous primary agencies, to offset the commission rate discounts. Additionally, during 2013, to facilitate the transition to our new systems, all SDG&E agency referrals went to a single agency. The agency's recovery rates dropped significantly and thus 2013 results are not deemed representative of the collection agency results we expect to see in future years.

v. Other

In 2013, Credit and Collection implemented new final bill collection software. During the transition there was a three month period when final bill notices were not sent to customers.[23] Therefore, I am requesting $14,000 in non-labor above the 2013 base year to cover the annualized cost of mailing the notices.

I am also requesting $12,000 in non-labor above the 2013 base year for brochures that are delivered to customers who are subject to service disconnection and vulnerable to health and

[22] See supplemental workpaper 2 attached to Ex. SDG&E-14-WP 1OO003 for the 2009-2013 commission payments paid to collection agencies.
[23] During the three month transition period, accounts were not referred to a collection agency.

safety risks. Pursuant to CPUC D.10-12-051 in the Residential Disconnection OIR 10-02-005, SDG&E provides these customers with a multi-language, large print 48-hour service disconnection notice in multiple languages, as well as large print, with instruction and contact information regarding how to obtain assistance. These costs were previously covered by Customer Service Field operations. The Customer Service Field operations TY 2016 forecast reflects a corresponding reduction.

5. Remittance Processing

Table 13 below summarizes SDG&E's requested TY 2016 expenses for Remittance Processing.

TABLE 13

Forecast for Remittance Processing

CS - OPERATIONS, INFORMATION & TECHNOLOGIES			
Shown in Thousands of 2013 Dollars			
A. Customer Service Operations	**2013 Adjusted-Recorded**	**TY2016 Estimated**	**Change**
5. Remittance Processing	$887	$875	($12)

a. Description of Costs and Underlying Activities

Remittance Processing includes the expense for paper, envelopes, and vendor fees to deliver customer bills.

The calculations for the estimated expenses are included in workpapers, Ex. SDG&E-14-WP 1OO004.

b. Forecast Method

In the TY 2012 GRC, a 5-year historical average forecast method was used for Remittance Processing. I chose to use a base year forecast method because this workpaper group includes non-labor costs of software maintenance for My Account, vendor's fees for electronic bill delivery to customers' home banking websites, and billing forms and envelopes for paper bills and notices. These costs are driven by the volumes of bills, notices and payments which are impacted by customer growth as well as customer choice of billing and payment channels. Therefore, the base year provides a reasonable starting point for future expenditures.

c. Cost Drivers

Table 14 summarizes the changes in Remittance Processing estimated expenses for TY 2016.

TABLE 14

Changes in Remittance Processing TY 2016 Estimated Expenses

Remittance Processing	TY 2016 - 2013 Change ($000)				
	Labor	Non-Labor	NSE	Total	FTEs
Software Licensing Costs			$10	$10	
Increase of E-Bills Delivered		$19		$19	
Forms & Envelopes – first call collection notices		$11		$11	
Forms & Envelopes – reduction due to suppressed and electronic bills		($52)		($52)	
Total TY 2016 Impact		**($12)**		**($12)**	

i. Software Licensing Costs

I am requesting $10,000 in non-labor above the 2013 base year for licensing fees for SDG&E's My Account electronic bill payment and presentment software, which represents a 3% annual contractual increase.[24]

ii. Increase of E-Bills Delivered

I am requesting $19,000 in non-labor above the 2013 base year due to increased vendor costs for the delivery of electronic bills to SDG&E's customers' home banking websites.[25]

iii. Forms & Envelopes

I am requesting $11,000 in non-labor above the 2013 base year for the cost of forms and envelopes to mail the first collections notice to customers who are late on their payments as set forth in the Direct Testimony of Sara Franke (Ex. SDG&E-13).[26]

In addition, the Remittance Processing TY 2016 forecast reflects a ($52,000) reduction in

[24] See supplemental workpaper 1 attached to Ex. SDG&E-14-WP 1OO004.000.
[25] See supplemental workpaper 2 attached to Ex. SDG&E-14-WP 1OO004.000.
[26] SDG&E will continue to send a collector to field for vulnerable customers before any disconnection of service in accordance with CPUC D.10-12-051 in OIR 10-02-005.

non-labor as the result of reduced costs for forms and envelopes due to suppressed[27] bills and electronic bills.

6. Postage

Table 15 below summarizes SDG&E's requested TY 2016 expenses for Postage.

TABLE 15

Forecast for Postage

CS - OPERATIONS, INFORMATION & TECHNOLOGIES			
Shown in Thousands of 2013 Dollars			
A. Customer Service Operations	**2013 Adjusted-Recorded**	**TY2016 Estimated**	**Change**
6. Postage	$4,431	$4,333	($98)

a. Description of Costs and Underlying Activities

Postage includes the expense for mailing customer bills and notices through the United States Postal Service ("USPS").

The calculations for the estimated expenses are included in workpapers, Ex. SDG&E-14-WP 1OO004.001.

b. Forecast Method

In the TY 2012 GRC, a base year forecast method was used for Postage. I also chose a base year forecast method because expenses depend on postage rates which are determined by the USPS and the volume of paper bills and notices which are impacted by customer growth as well as electronic bill adoption levels. Therefore, the base year provides a reasonable starting point for future expenditures.

c. Cost Drivers

Table 16 summarizes the changes in Postage estimated expenses for TY 2016.

[27] Suppressed bills are bills that are not mailed to customers because they have indicated they no longer need a paper bill.

TABLE 16

Changes in Postage TY 2016 Estimated Expenses

Postage	TY 2016 - 2013 Change ($000)				
	Labor	Non-Labor	NSE	Total	FTEs
Postage for Meter Growth			$93	$93	
Increased Postage Costs – rate increase			$386	$386	
Increased Postage Costs – first call collection notices			$213	$213	
Postage Savings – paperless			($636)	($636)	
Postage Savings – rate increase			($154)	($154)	
Total TY 2016 Impact			**($98)**	**($98)**	

i. Postage for Meter Growth

I am requesting $93,000 in non-labor above the 2013 base year for increased postage costs related to meter growth.[28] The projected rate of paper bills and notices per meter in TY 2016 is 6.89.

ii. Increased Postage Costs

I am requesting $386,000 in non-labor above the 2013 base year due to increased postage costs. On December 24, 2013, the USPS was granted a 2.1 per item increase effective January 26, 2014.[29]

I am also requesting $213,000 in non-labor above the 2013 base year for postage resulting from the Customer Service Field operations' change to the first call collection notice process as described in section II.A.5.c.iii. I am requesting the additional postage costs for mailing the first collections notice to customers who are late on their payments.[30]

iii. Postage Savings

The TY 2016 Postage forecast reflects a ($636,000) reduction for postage costs resulting from additional customers choosing to receive their bill via electronic statements.[31] The projected rate of electronic bills per meter in TY 2016 is 5.25.

[28] See supplemental workpaper 2 attached to Ex. SDG&E-14-WP 1OO004.001.
[29] See supplemental workpaper 4 attached to Ex. SDG&E-14-WP 1OO004.001 for the September 25, 2013 USPS Postal News announcing the rate increase effective January 26, 2014.
[30] See supplemental workpaper 3 attached to Ex. SDG&E-14-WP 1OO004.001.
[31] See supplemental workpaper 2 attached to Ex. SDG&E-14-WP 1OO004.001.

The TY 2016 Postage forecast reflects a ($154,000) reduction in postage costs resulting from the increase in postage costs discussed in section II.A.6.c.ii. The increase in USPS costs will result in additional postage savings for customers who are paperless.[32]

7. Branch Offices and Authorized Payment Locations

Table 17 below summarizes SDG&E's requested TY 2016 expenses for Branch Offices and APLs.

TABLE 17

Forecast for Branch Offices and APLs

CS - OPERATIONS, INFORMATION & TECHNOLOGIES			
Shown in Thousands of 2013 Dollars			
A. Customer Service Operations	**2013 Adjusted-Recorded**	**TY2016 Estimated**	**Change**
7. Branch Offices	$2,019	$1,734	($285)

a. Description of Costs and Underlying Activities

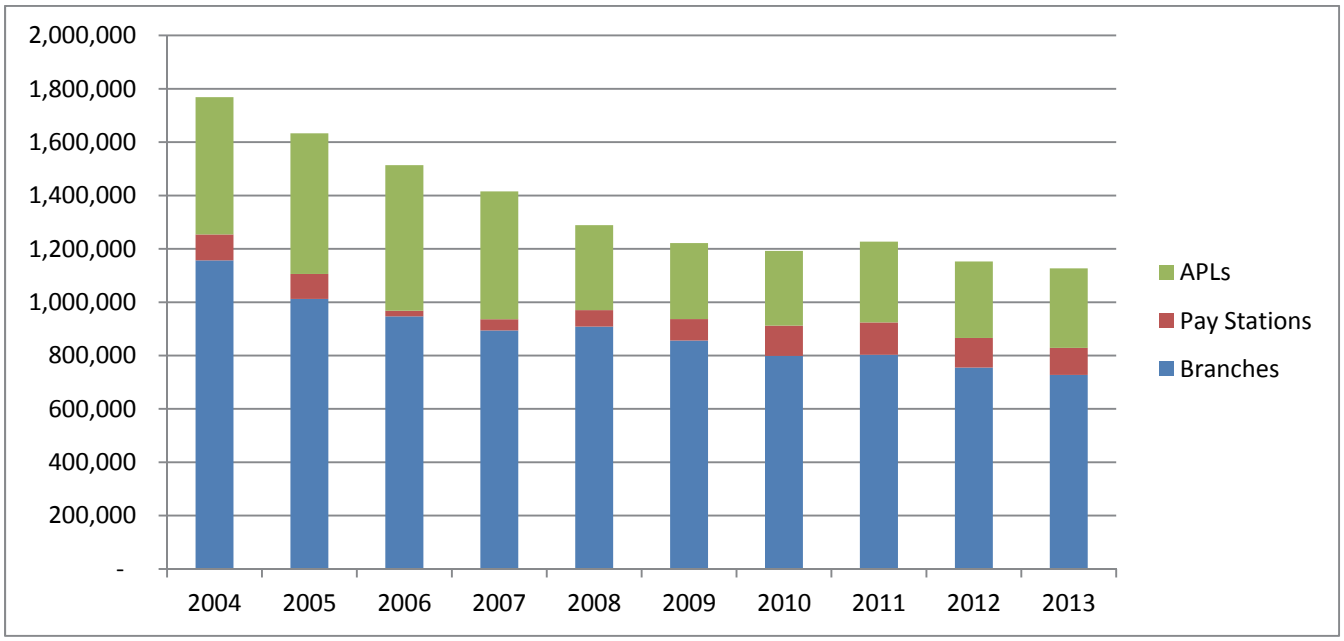
SDG&E provides local payment offices and customer services through a network of Branch Offices and Authorized Payment Locations ("APLs"). SDG&E operates five dedicated Branch Office facilities and two shared Branch Office facilities (Downtown Branch Office-California Coast Credit Union and the Oceanside Branch Office-UPS Store). SDG&E contracts with a third party vendor that provides a network of approximately 75 APLs.[33] These APLs provide similar payment services for SDG&E customers and offer convenient locations and extended hours.[34] SDG&E continues to experience a decline in Branch Office and APL payments as shown in Chart 1 below; therefore, SDG&E is proposing to close two of its Branch Offices and convert one office to an APL. See section II.A.7.c.ii below for details.

[32] See supplemental workpaper 2 attached to Ex. SDG&E-14-WP 1OO004.001.
[33] The number of APLs will vary because of retail business turnover.
[34] Consistent with SDG&E's 2008 GRC Decision (D.08-07-046, pp. 21), SDG&E has not contracted with any APLs that offer payday lending services.

CHART 1

Branch Office and APL Payment Transactions

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Branches	1,156,925	1,012,388	946,764	894,280	908,771	856,252	799,037	803,144	755,242	727,673
Pay Stations	97,297	93,331	21,444	41,575	61,350	80,238	112,979	120,812	110,765	101,160
APLs	514,456	527,284	545,529	479,738	318,893	285,322	280,260	302,917	286,491	298,114
Sub-Total Branch & APL Pmts	**1,768,678**	**1,633,003**	**1,513,737**	**1,415,593**	**1,289,014**	**1,221,812**	**1,192,276**	**1,226,873**	**1,152,498**	**1,126,947**



The calculations for the estimated expenses are included in workpapers, Ex. SDG&E-14-WP 1OO005.

b. Forecast Method

In the TY 2012 GRC, a 3-year historical average forecast method was used for the Branch Office and APL operations. I chose a base year forecast method because 2013 was used as the basis for the analysis for the process improvements discussed in section II.A.7.c.i. below. Therefore, the base year provides a reasonable starting point for future expenditures.

c. Cost Drivers

Table 18 summarizes the changes in Branch Offices estimated expenses for TY 2016.

TABLE 18

Changes in Branch Offices TY 2016 Estimated Expenses

Branch Offices	TY 2016 - 2013 Change ($000)			
	Labor	Non-Labor	Total	FTEs
Process Improvements	($285)		($285)	(5.5)
Total TY 2016 Impact	**($285)**		**($285)**	**(5.5)**

i. Process Improvements

A ($285,000) adjustment to the TY 2016 forecast has been made to reflect a 5.5 FTE reduction in 2014 staffing due to a newly implemented Capacity Model.[35] The model encompasses historical volumes that forecast scheduling needs by Branch Office. As depicted below in Chart 2, Branch Office and APL payment transaction volumes continue to decline year after year, so using this assumption and the Capacity Model, staffing reductions are expected. The Capacity Model will allow us the flexibility to schedule employees during peak days and times even down to the hour. No diminished service to customers is expected. Multiple process improvements have been identified to help balance the workload during the day. Process improvements include: daily correspondence will be moved to another area, supervisors will assist during peak days, a change in reconciliation process with single check scanning. Employees and supervisors will be able to focus more on moving customers towards self-service payment options like My Account, home banking, and the SDG&E mobile application. Longer customer wait times may be experienced during high volume periods until the staffing levels are optimized. SDG&E will continue to focus on the customer experience and the level of service our customers receive.

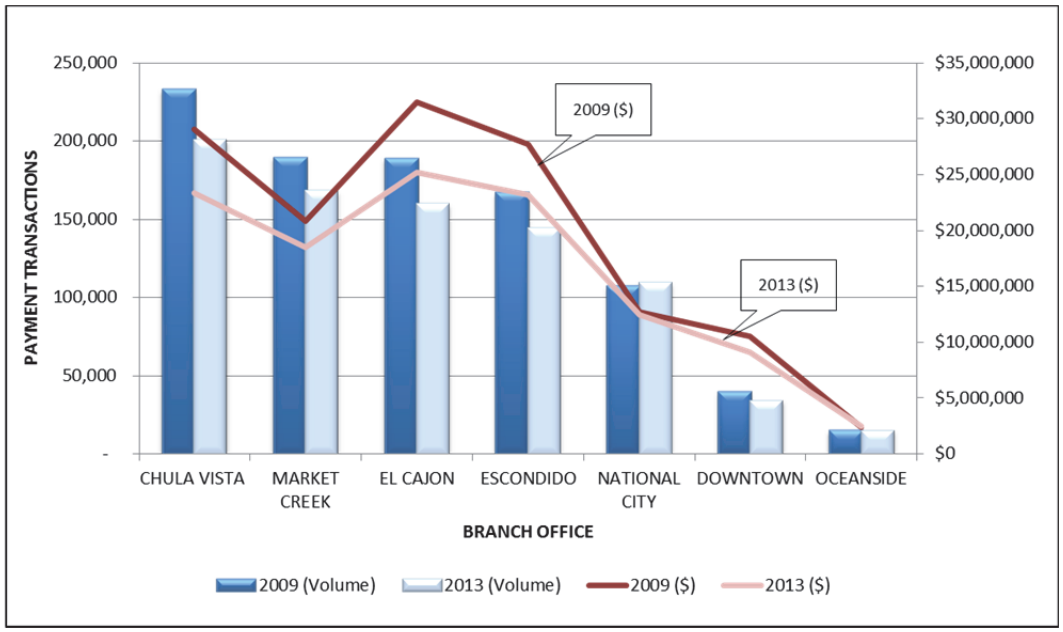
ii. Closure of Branch Offices

SDG&E is requesting approval to close two of its Branch Offices (Downtown and National City) and convert one Branch Office (Oceanside) to an APL. These offices are the three lowest volume Branch Offices in SDG&E's service territory and have been experiencing a long-term trend in declining payment transactions as illustrated in Chart 2 and Table 19 below.

[35] See supplemental workpaper 1 attached to Ex. SDG&E-14-WP 1OO005 detailing the cost reduction.

CHART 2

Branch Offices Payment Transactions



Note: Slightly lower 2009 transaction volume at the National City and Oceanside Branch Offices due to temporary office closure for renovations (approximately 12 weeks and approximately 4 weeks, respectively).

TABLE 19

Branch Offices Volume of Payments

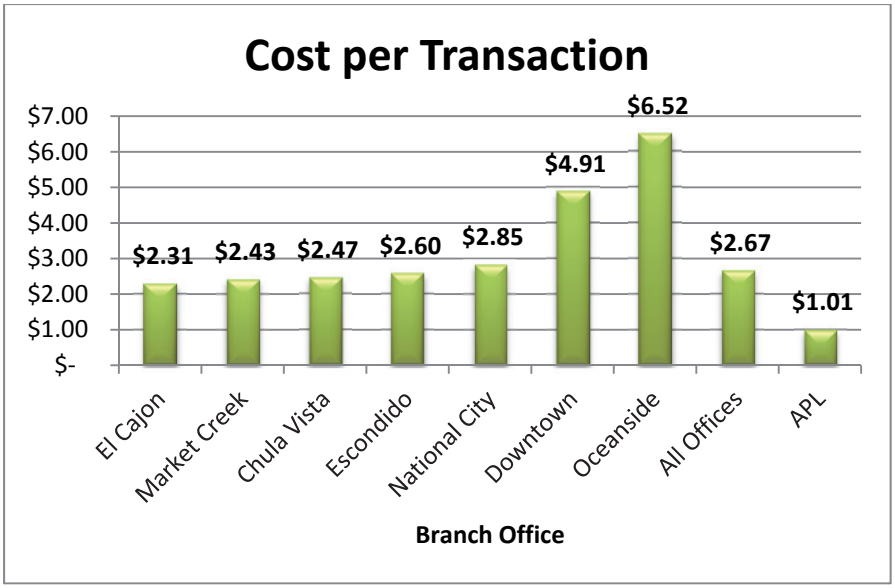
Branch Office	2009	2010	2011	2012	2013
Chula Vista	232,453	229,689	228,600	213,404	200,201
Downtown	39,344	38,472	37,905	35,799	33,785
El Cajon	188,554	185,038	179,553	165,010	159,404
Escondido	166,661	143,012	150,539	147,031	143,831
Market Creek	189,087	188,067	186,966	174,317	167,738
National City	106,653	105,867	117,522	112,548	109,302
Oceanside	14,560	22,667	21,514	17,527	14,722

Furthermore, the Oceanside, Downtown and National City Branch Offices have the highest cost per transaction of all the Branch Offices as shown in Chart 3. Therefore, in the

interest of our customers as a whole, closure of the National City and Downtown Offices and converting the Oceanside Office to an APL is warranted with the associated cost savings passed onto customers.

CHART 3

Branch Office Cost Per Transaction



The overwhelming majority of transactions handled at SDG&E's Branch Offices are payment transactions. As shown in Table 20, within SDG&E's Branch Offices non-payment transactions constituted less than 3% of the total Branch Office transactions in 2013.

TABLE 20

Branch Office Payment and Non-Payment Transactions

	2013	% of Total
Branch Office Payment Transactions	727,673	
ExpressPay Machine	101,012	
Authorized Payment Location (APL)	298,072	
Total Payment Transactions	1,126,757	96%
Customer Program Enrollments	8,846	
Service Orders	20,822	
Total Non-Payment Transactions	29,668	3%
Total Transactions	**1,156,425**	

Customers may conduct non-payment transactions through the self-service option of My Account or by contacting the Customer Contact Center ("CCC") at their convenience, via SDG&E's toll-free number. Customers can also conduct non-payment transactions at nearby

APLs where customers already conduct business daily, such as grocery and convenience stores, by using the courtesy phones that connect directly to the CCC at some locations. There are currently a combined total of 32 APLs in the vicinity of the Downtown, National City, and Oceanside offices that will provide a comparable level of service and in some cases, provide more payment options and accessibility to customers as certain APLs, such as Walmart, accept debit card payments at no cost to customers and have longer operating hours that extend beyond SDG&E's Branch Offices. See the proximity of nearby APLs in Table 21 below.

TABLE 21

Proximity of Branch Offices to Nearest APLs

National City Branch Office		Downtown Branch Office
S&S Travel (E Plaza Bl) - 0.0 mi		Northgate #31 (Main St) - 1.78 mi
Walmart #5023 (Highland Ave) - 0.99 mi		Foodbowl Market (Cedar St) - 1.83 mi
El Gallo Universal aka Envios Y Nouedades El Frijolito (S 43rd St) - 1.48 mi		Walmart #5638 (Imperial Ave) - 2.61 mi
Northgate Market #21 (S 43rd St) - 1.49 mi		David's Friendly Market (32nd St) - 2.17 mi
Cozine's Grocery (Civic Center Dr) - 1.74 mi		Northgate #21 (S 43rd St) - 3.96 mi
Walmart #2291 (N Broadway) - 2.14 mi		El Gallo Universal aka Envios Y Nouedades El Frijolito (S 43rd St) - 3.97 mi
Walmart #5638 (Imperial Ave) - 3.24 mi		Cozine's Grocery (Civic Center Dr) - 4.60 mi
Postal Annex (H St) - 3.30 mi		Alpha Mini Mart (El Cajon Bl) - 4.64 mi
David's Friendly Market (32nd St) - 3.38 mi		Walmart #5023 (Highland Ave) - 4.89 mi
Hotwire Insurance (H St) - 3.49 mi		Oceanside/Carlsbad Branch Office
Northgate #31 (Main St) - 3.98 mi		UPS Store (convert to an APL) - 0.0 mi
Foodbowl Market (Cedar St) - 4.09 mi		Walmart #2494 (Vista Wy) - 1.13 mi
Kmart #7636 (H St) - 4.46 mi		Walmart #5075 (Marron Rd) - 1.60 mi
Northgate #27 (3rd Ave) - 4.48 mi		Walmart #5637 (Mission Ave) - 3.17 mi
Kmart #3076 (Sweetwater Rd) - 4.61 mi		Postnet (Oceanside Bl) - 3.30 mi
Walmart #2479 (College Ave) - 4.75 mi		TransTech One (Palomar Airport Rd) - 4.72 mi
Northgate #36 (University Ave) - 4.81 mi		Walmart #2245 (College Ave) - 4.93 mi

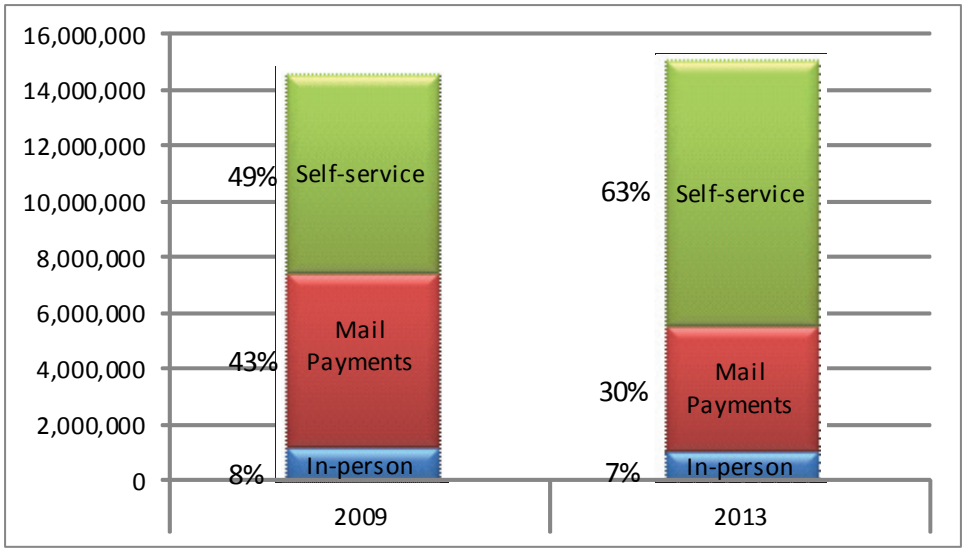
As exhibited in Chart 4 below, customer preferences over the last several years have revealed that self-service options have grown significantly and traditional payment options, such as making a payment at a Branch Office, have declined.[36] This can be attributed to the increased availability and sophistication of self-service payment options including paying through My

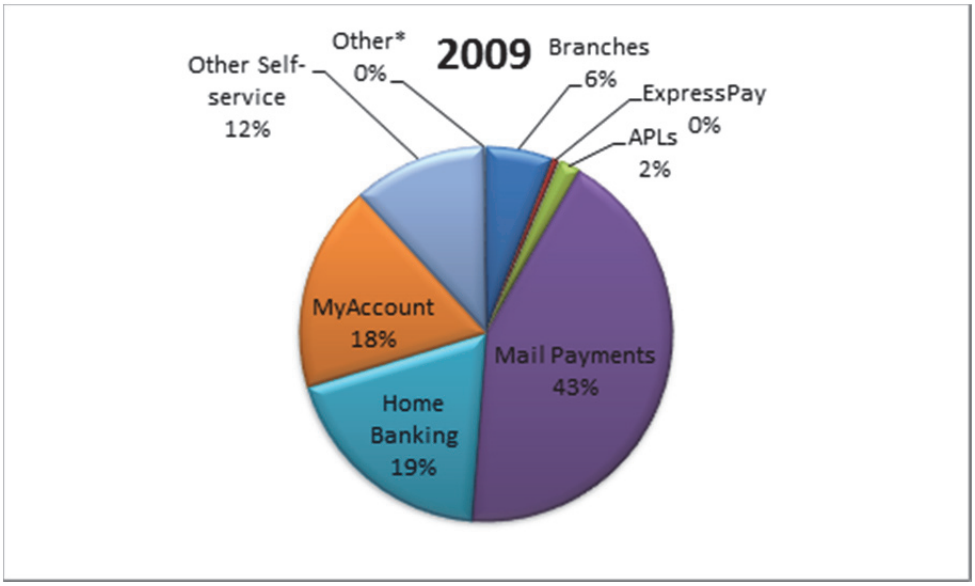
[36] According to the August 2012 J.D. Power and Associates Customer Impact Report: Mobile Customer Interaction, if a utility's mobile website and/or app includes viewing energy usage, **billing and payment options/account management**, and reporting emergencies (outages or leaks) the utilities are well on their way to meeting customers' preferences (emphasis added).

Account, Bill Matrix[37], home banking, direct debit, electronic data interchange ("EDI"), and pay-by-phone through SDG&E's IVR System. Other traditional payment options are still available, such as mail and APLs, making the need to visit a Branch Office unnecessary.

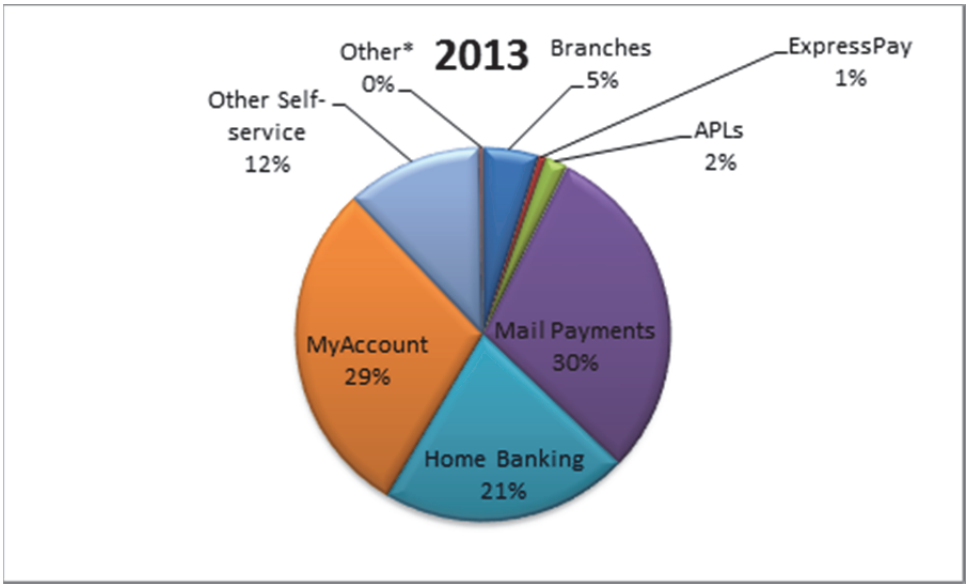
CHART 4

SDG&E Customer Payments





[37] Customers can use most ATM cards, debit cards, MasterCard® and Visa® credit cards and electronic checks to pay their bill. These payment options are offered through BillMatrix, an independent service provider.



* Includes Direct Debit, Debit/Credit Card/ACH, Pay by Phone, EDI, Wire Transfer

As the result of closing the Downtown and National City offices and converting Oceanside to an APL, SDG&E customers will realize annual cost savings of approximately $400,000 per year in operational costs less one-time closure expenses of approximately $85,000 as shown in Table 22 below.[38]

TABLE 22

Branch Office Closure Savings

Cost to Achieve	
Annual Savings	
Closure of three branch offices	$ 472,017
Annual costs of one APL in Oceanside	$ (2,020)
Estimated annual APL costs for increased volume	$ (69,863)
Subtotal	**$ 400,135**
One Time Costs	
One time communication costs	$ (85,065)
Total	**$ 315,070**

[38] The savings and one-time costs are not reflected in the Branch Office TY 2016 forecast. Adjustments will need to be made to SDG&E's authorized revenue requirement if SDG&E's proposal is approved. See supplemental workpaper 2 attached to Ex. SDG&E-14-WP 1OO005 for a breakdown of the total savings.

The cost savings assumes 25% of customers would move to self-service and 75% would continue with in-person payments (either via an APL or an existing Branch Office). The following testimony demonstrates why the closure of each office will not diminish service to customers and is no longer a cost-effective payment option which will reduce costs to customers.

- National City Branch Office

The National City Branch Office is located in a leased building within a retail shopping center off a main road in National City. There are currently six APLs available within a three mile radius of this office (11 additional APLs within a five mile radius) with one of the APLs being right next door to the National City Branch Office. Of the six APLs that are within a three mile radius, one is equipped with a courtesy phone which connects directly to the CCC, two provide identity verification services ("POS IDs"), and all APLs are compliant per the Americans with Disabilities Act ("ADA"). Of the 11 APLs within a five mile radius, one is equipped with a courtesy phone with a direct line to the CCC, two provide identity verification services (POS IDs), and all are compliant per the ADA. The APLs are convenient for customers utilizing public transportation. Transportation service is provided by San Diego Metropolitan Transit Systems which offers both bus and trolley services. S&S Travel is the nearest APL in proximity to the National City Branch Office and is within walking distance as it is located in the same strip mall next door to the National City Branch Office. Bus lines 13, 962 and 963 provide direct routes between National City Branch Office and Walmart #5023. Walmart #5023 is in walking distance of Bus Stop ID 12519 (Highland Ave & E 12th St) on Bus line 929 and Bus Stop ID 50003 (Plaza Blvd & Highland Ave) on Bus lines 962 and 963. El Gallo Universal (aka Envios Y Nouedades El Frijolito) and Northgate Market #21 are within the same strip mall in walking distance of one another and in walking distance of Bus Stop ID 12512 (at 43rd St & Beta St) on Bus line 955. Cozine's Grocery is within walking distance of Bus Stop ID 60775 (at Civic Center Dr & Wilson Ave) on lines 932, 933, 955 and 962. Walmart #2291 is within walking distance of Bus Stop ID 60025 at National City Blvd and 35th St on Bus Line 932.

Also available to these customers are two Branch Offices that are located very closely to the National City Branch Office. The Market Creek Branch Office is located within three miles from the existing National City Branch Office and the Chula Vista Office is located within five miles from the existing National City Branch Office. Additionally, SDG&E's analysis shows that 85% of the customers who paid at the National City Branch Office in 2013 resided in zip

codes located within five miles of the Market Creek Branch Office. All customers will have a plethora of options between the 17 APLs and two Branch Offices located within five miles of this Branch Office.

While 4% of the National City Branch Office transactions are non-payment (see Table 23 below), customers will be able to perform these non-payment transactions at either of the two nearby Branch Offices or at an APL that has a courtesy phone line to the CCC such as S&S Travel next door to the Office.

TABLE 23

National City Payment and Non-Payment Transactions

	2013	**% of Total**
Payment Transactions (PEP)	100,209	
ExpressPay	9,093	
Total Payment Transactions	109,302	96%
Customer Program Enrollments	2,589	
Service Orders	1,416	
Total Non-Payment Transactions	4,005	4%
Total Transactions	**113,307**	

The percentage of cash payments reported by the National City Branch Office in 2013 was 58%. The median household income in National City is $49,555 compared to the 2013 California Alternate Rates for Energy ("CARE") program income guideline of $39,060. Approximately 60% of customers that paid at the National City Branch Office in 2013 were identified as CARE customers.

Of the four employees working at the National City Branch Office, two employees will be relocated to other offices to compensate for increased volumes due to closures and the other two employees will be redeployed to the CCC resulting in $210,000 in savings per year for the closure of this office. SDG&E estimates one-time closure expenses of $32,000 for communicating the National City Branch Office closure to its affected customers.[39]

[39] See supplemental workpaper 2 attached to Ex. SDG&E-14-WP 1OO005 for a breakdown of the cost savings for the National City Branch Office.

- Downtown Branch Office

The Downtown Branch Office is located in a California Coast Credit Union branch as part of a joint partnership with SDG&E. Customers are able to process their payments with a California Coast Credit Union employee or through the ExpressPay machine located in the lobby. Additionally, a Virtual Energy Services Specialist ("ESS") machine equipped with video conferencing and a courtesy phone allows customer interaction with an ESS who can process service orders, POS IDs, program enrollments, and other assistance provided by a traditional Branch Office.

The Market Creek Branch Office is within six miles of the Downtown Branch Office and there are currently four APLs available within a three mile radius of this office (five additional APLs within a five mile radius). One of these four APLs is equipped with a courtesy phone which connects to the CCC, two APLs provide POS IDs, and all APLs are ADA compliant. The four APLs are convenient for customers utilizing public transportation. Transportation service is provided by San Diego Metropolitan Transit Systems which offers both bus and trolley services. Northgate Market #31 is in nearest proximity to San Diego Branch Office and is within walking distance of Bus Stop ID 12451 (at Main St & Cesar Chavez Pkwy) on bus line 929. Food Bowl Market is in walking distance of Bus Stop ID 12473 (at 30th St & Cedar St) on bus line 2. Walmart #5638 is in walking distance to Bus Stop ID 10874 (at Imperial Ave & 21st St) on bus line 4. David's Friendly Market is closely situated to San Diego Branch Office and is in walking distance to Bus Stop ID 10935 (at Market St & 32nd St) on bus line 5.

The percentage of cash payments reported by the Downtown Branch Office in 2013 was 24%. The median household income in Downtown is $46,690 compared to the 2013 CARE income guideline of $39,060. Approximately 38% of customers that paid at the Downtown Branch Office in 2013 were identified as CARE customers.

There is no expected impact to SDG&E employees as the office is staffed by California Coast Credit Union employees per the current service agreement.

The Downtown Branch Office's estimated annual savings are $166,000. SDG&E estimates one-time closure expenses of $26,000 for communicating the Downtown Branch Office closure to its affected customers.[40] The cost per transaction for the Downtown Branch

[40] See Supplemental workpaper 2 attached to Ex. SDG&E-14-WP 1OO005 for a breakdown of the cost savings for the Downtown Branch Office.

Office in 2013 was $4.91 mostly due to the high cost of utilizing California Coast Credit Union employees and the low volume of payment transactions processed at office, which processes the second least amount of payments of all the offices.

- Oceanside Branch Office

The Oceanside Branch Office is located in a UPS Store as part of a joint partnership with SDG&E. Customers are able to process their payments with a UPS Store employee or through the ExpressPay machine located in the lobby. Additionally, a Virtual ESS machine equipped with video conferencing and a courtesy phone allows customer interaction with an ESS who can process service orders, POS IDs, program enrollments, and other assistance provided by a traditional Branch Office.

There are currently two APLs available within a three mile radius of this office (four additional APLs within a five mile radius). Once SDG&E converts the Oceanside Branch Office to an APL, leaving a courtesy phone which connects to the CCC and removing the ExpressPay and Virtual ESS machines, SDG&E will have three APLs within a three mile radius of the current Oceanside Branch Office. Of the four APLs that are within a five mile radius, two are equipped with courtesy phones to connect to the CCC, two provide POS IDs, and all APLs are ADA compliant. The Oceanside Branch Office is a co-operative agreement with The UPS Store which we propose to convert to an Authorized Payment Locations (APL) and thus will remain available to customers currently being served at that location. Although SDG&E does not expect customers to utilize another APL after the conversion of the Oceanside Branch Office, public transportation to Oceanside areas is provided by the North County Transit District which offers Coaster, Sprint, Breeze, Flex and Lift services. While Breeze (bus) service is available, walking distance from bus stop to APLs are between 0.7mi and 1.2 mi. Flex and Lift service provide door-to-door pick and drop-off to desired destination by reservation. Walmart #2494 is in nearest proximity to Oceanside Branch Office and is approximately 1.2 mile walking distance of Bus Stop ID 21504 (at Coast Hwy & Cassidy St) on bus line 101. Walmart #5075 is closely situated to the Oceanside Branch Office and is located within 0.7 mile walking distance of Bus Stop ID 20448 (at Barnard Dr & Meadow Ln) on bus line 302.

The percentage of cash payments reported by the Oceanside Branch Office in 2013 was 54%. The median household income in the city of Oceanside is $67,639 compared to the 2013

CARE income guideline of $39,060. Approximately 41% of customers that paid at the Oceanside Branch Office in 2013 were identified as CARE customers.

There is no impact to SDG&E employees as the office is staffed by UPS Store employees.

Estimated annual savings for the Oceanside Branch Office are $96,000 which is partially offset by annual costs of $2,000 for providing an APL. SDG&E estimates one-time closure expenses of $26,000 for communicating the Oceanside Branch Office closure to its affected customers.[41] The cost per transaction for the Oceanside Branch Office in 2013 was $6.52 mostly due to the low volume of payment transactions processed at this office, which processes the least amount of payments of all the offices.

- Closure Communications

SDG&E will provide clear and timely notice to affected customers by distributing advance notifications in English, Spanish, and Tagalog (for National City customers) to customers in the three potentially affected communities. The notices will be distributed a minimum of 60 days prior to closure and advise customers that the Downtown and National City Branch Offices will be closing and the Oceanside Branch Office will be converted to an APL. Notices will explain each of SDG&E's payment and service options and will provide customers with self-service options, website links, and telephone numbers to assist them in learning about the many alternative payment and service options. By providing these notices, customers will have at minimum two and up to three full billing cycles to adjust how they tender their payments and how and where they obtain information from SDG&E. SDG&E will provide the notices using the following forms of communication:

- Newspaper ad in local publications in the counties served
- Direct mail letter to affected customers
- Flyers/postcards at the offices – includes directions to nearby Branches and/or APLs
- Branch Office signage – includes directions to nearby Branches and/or APLs
- Referral through the IVR System
- Notices on SDG&E.com

[41] See supplemental workpaper 2 attached to Ex. SDG&E-14-WP 1OO005 for a breakdown of the cost savings for the Oceanside Branch Office.

SDG&E's Public Affairs representatives will attend City Council meetings for Downtown San Diego, National City, and Oceanside to advise the Council of the proposed office closures. Inserts regarding the proposed office closings are planned to be included in newsletters of the local Chamber of Commerce.

Customer satisfaction ratings on the level of service and customer experience at the APLs will continue to be monitored by a third party vendor and the local administrator will conduct monthly audits of the impacted areas. Customer complaints and/or concerns will be tracked in SDG&E's Comment Tracking System which is monitored monthly and any escalated inquiries will be handled by the Branch Office Manager.

For the reasons described above, the Branch Office closures and conversion as a whole would be beneficial to our customers from a cost savings perspective and would not diminish services available to them, including SDG&E's low income customers.

8. Customer Contact Center Operations

Table 24 below summarizes SDG&E's requested TY 2016 expenses for CCC Operations.

TABLE 24

Forecast for CCC Operations

CS - OPERATIONS, INFORMATION & TECHNOLOGIES			
Shown in Thousands of 2013 Dollars			
A. Customer Service Operations	**2013 Adjusted-Recorded**	**TY2016 Estimated**	**Change**
8. Customer Contact Center Operations	$9,188	$8,813	($375)

a. Description of Costs and Underlying Activities

SDG&E operates their Customer Contact Center ("CCC") out of two facilities, including the main SDG&E CCC facility in Century Park and another facility in El Cajon which accommodate approximately 126 and 38 Energy Services Specialists ("ESS"), respectively. CCC expenses cover the cost of:

- Answering customer telephone calls;
- Responding to incoming e-mail from customers;
- Responding to customer inquiries through online chat features;

- Responding to written customer correspondence regarding customer account activity;
- Following up on all CPUC telephone referrals and informal/formal CPUC complaints; and
- Responding to other customer account related inquiries.

Through a variety of toll-free telephone numbers, SDG&E responds to a myriad of residential, commercial, industrial, and agricultural customer calls 24 hours per day, 365 days per year. As discussed in section II.A.8.c.ii below, effective August 2, 2014, the CCC will reduce its operating hours for non-emergency calls to Monday through Friday, 7 a.m. to 8 p.m. and Saturday, 7 a.m. to 6 p.m.

The CCC responds to billing and payment inquiries, requests for customer assistance program information, offers appropriate rate options to customers, provides energy conservation solutions, and other miscellaneous requests.

SDG&E CCC agents have evolved from the prior role as transaction focused agents to their new role as an energy advisor, serving as an ESS who perform not only transactions but also provide customer support on complex billing issues, applicable rate choices, and the offering of tools and solutions to aid in energy or bill reduction.

The two CCC facilities act as one "virtual" CCC and serve as back-up sites to one another in the case of an emergency. Calls are routed to the first available ESS. With its own representatives, SDG&E provides telephone service in English, Spanish, and Vietnamese. SDG&E provides service in other languages through a third party language line established in 2004. SDG&E also provides services for the hearing-impaired.

The calculations for the estimated expenses are included in workpapers, Ex. SDG&E-14-WP 1OO006.

b. Forecast Method

In the TY 2012 GRC, a zero-based forecast method was used for CCC Operations. I also chose a zero-based forecast method for labor because of the dynamics of various communication channels (phone, Interactive Voice Response ["IVR"] and web) and progressive improvements in self-service, additional coaching of ESSs, additional focus on effective call handling, and standardized call scripting that all impact the ESS FTE requirements. The forecast was built

using CCC workforce management software and based on projected call volume, level of service ("LOS"), average handle time ("AHT"), agent occupancy,[42] and shrinkage[43].

In the TY 2012 GRC, the CCC ESS call volumes were forecasted based on a 5-year historical average. I chose 2013 base year actual performance results over historical averages to forecast the ESS-handled call volumes because 2013 is the best representation of what we expect for 2014-2016. I applied the 2013 individual "transactions per electric meter" (Table 25 below) to projected electric meters to obtain transaction volumes (Table 26 below). The 2013 base year actual performance results were preferred over historical averages because changes in customer preferences of communication channel, new channel offer (CHAT), and self-service channel improvements (IVR, web and mobile) have fluctuated and thereby impacted ESS-handled calls in the last five years.

TABLE 25

ESS Historical Call Volume and Forecast

Year	Total ESS Calls	Electric Meters	Calls Per Meter
2005	2,541,425	1,328,680	1.91
2006	2,506,530	1,347,005	1.86
2007	2,367,352	1,360,772	1.74
2008	2,449,930	1,368,060	1.79
2009	2,436,338	1,375,326	1.77
2010	2,353,875	1,382,924	1.70
2011	2,242,137	1,390,704	1.61
2012	2,127,497	1,397,678	1.52
2013	2,066,645	1,405,218	1.47
2014 (Fcst)	2,080,069	1,414,346	**1.47**
2015 (Fcst)	2,100,450	1,428,204	**1.47**
TY2016 (Fcst)	2,125,721	1,445,387	**1.47**
		Average (2009-13) Calls Per Meter	**1.62**

[42] Agent occupancy, also known as agent utilization, is defined as a percentage of time call agents actually spend handling incoming calls, including after call work against the staff time or total amount of time they are plugged in and ready and waiting for calls to arrive. Occupancy is calculated by dividing call-handling time, including after call work by staff time.

[43] Shrinkage is defined as the time for which call agents are paid during which they are not available to handle calls. It is a measure of how much time is lost in the CCC to things like vacation, breaks, lunch, holidays, sick time, absenteeism, training, meetings, etc. Shrinkage is calculated by dividing total lost time by total paid time.

TABLE 26

Total Customer Contacts and Transactions

2009 – TY 2016

Year	ESS Calls	% of Total	IVR Calls	% of Total	Web & Mobile	% of Total	Email	% of Total	Chat	% of Total	Total Contacts
2009	2,436,338	81.65%	406,549	13.63%	3,083	0.10%	137,762	4.62%	0	0.00%	2,983,732
2010	2,353,875	76.04%	565,140	18.26%	12,808	0.41%	163,718	5.29%	0	0.00%	3,095,541
2011	2,242,137	75.62%	522,581	17.62%	41,811	1.41%	158,485	5.35%	0	0.00%	2,965,014
2012	2,127,497	74.15%	521,666	18.18%	63,620	2.22%	156,330	5.45%	0	0.00%	2,869,113
2013	2,066,645	72.76%	535,836	18.86%	171,461	6.04%	62,209	2.19%	4,295	0.15%	2,840,446
2014 (Fcst)	2,080,069	72.76%	539,317	18.86%	172,575	6.04%	62,613	2.19%	4,323	0.15%	2,858,897
2015 (Fcst)	2,100,450	72.76%	544,601	18.86%	174,266	6.04%	63,227	2.19%	4,365	0.15%	2,886,909
2016 (Fcst)	2,125,721	72.76%	551,153	18.86%	176,362	6.04%	63,987	2.19%	4,418	0.15%	2,921,642
13 to 16 Growth	59,076	2.86%	15,317	2.86%	4,901	2.86%	1,778	2.86%	123	0.15%	81,196

I chose a base year forecast method for the CCC Operations non-labor by applying the base year non-labor cost per FTE and multiplying that times the number of forecasted FTEs. These non-labor expenses primarily consist of employee related expense, office supplies, office furniture, and headsets. (Communications, annual software maintenance, and telecommunication costs are captured under the CCC Support non-labor category).

c. Cost Drivers

Table 27 summarizes the changes in the CCC Operations estimated expenses for TY 2016.

TABLE 27

Changes in CCC Operations TY 2016 Estimated Expenses

CCC Operations	TY 2016 - 2013 Change ($000)			
	Labor	Non-Labor	Total	FTEs
Staffing Increase and Reduction in Overtime Pay	($46)		($46)	3.6
Change in Operating Hours	($145)		($145)	(3.0)
Customer Outreach Safety Checks	$48		$48	1.0
New Rate Options and Programs	$241		$241	5.0
CARE Enrollment	$72		$72	1.5
Capital Project Impacts – IVR 2014 Capital Project #14023	($193)		($193)	(4.0)
Capital Project Impacts – SEAd Phase 1 Capital Project #13009	($217)		($217)	(4.5)
Capital Project Impacts – SEAd Phase 2 Capital Project #14017	($135)		($135)	(2.8)
Total TY 2016 Impact	**($375)**		**($375)**	**(3.2)**

i. Staffing Increase and Reduction in Overtime Pay

The CCC Operations TY 2016 zero-based labor forecast is $8,758,156. The forecast is approximately $46,000 less than the 2013 base year actual expenses. The reduction in the labor forecast is due to the combination of hiring ESSs at straight-time pay and reducing overtime pay. There was a higher than normal overtime expenditure in 2013 because of a shortage of ESS and a decline in productivity due to training for new entry-level ESS positions. There were two training classes for entry-level ESS positions that completed in 2013 which resulted in 12 additional ESS. Furthermore, SDG&E is targeting an ESS LOS of 70% for TY 2016 which is equivalent to the 5-year average and a slight increase over the 2013 actual as shown below in Table 28. An overall LOS includes both IVR self-service calls as well as ESS calls answered within 60 seconds of being placed in the ESS call queue. Since every IVR self-service call is counted as a call answered with 60 seconds, overall LOS including IVR self-service calls is always higher than ESS LOS.

TABLE 28

Historical Level of Service

Year	Overall LOS (a)	ESS LOS (b)	IVR Incremental Contribution = (a) - (b)
2009	76.1%	72.3%	3.8%
2010	76.4%	71.0%	5.4%
2011	77.0%	71.9%	5.1%
2012	71.6%	65.0%	6.6%
2013	75.0%	68.9%	6.1%
5 Year Average	75.2%	69.8%	5.4%

ii. Change In Operating Hours

The CCC Operations TY 2016 forecast reflects a ($145,000) reduction in labor of 3.0 FTEs resulting from the implementation of the "Non-Emergency Operating Hour Change".[44] The CCC has been operating 24 hours for all calls except on major holidays when ESS staffing was minimized to assist customers with emergency matters only. While the CCC is still open 24/7, effective August 2, 2014, the CCC will reduce its operating hours for non-emergency calls to Monday through Friday, 7 a.m. to 8 p.m. and Saturday, 7 a.m. to 6 p.m. This initiative is

[44] SDG&E filed Advice Letter 2585-E/2279-G on March 13, 2014 to update its sample forms to reflect the revised hours of operation of the CCC. The Advice Letter was approved by the CPUC's Energy Division on May 7, 2014.

intended to: improve overall customer service by maximizing the number of employees working during the times customers contact SDG&E the most; to motivate customers to use self-service which has greatly improved in availability and accessibility; and to contain the cost of service. Starting July 1, 2014, SDG&E will be employing multiple communication channels such as customer bills, bill inserts, emails, IVR phone system, online and Branch Offices, to notify customers of the change. The change in hours will reduce three of 15 ESS positions currently working the shifts between 8 p.m. and 7 a.m. and will reallocate 11 Sunday positions to Monday through Saturday.[45]

iii. Customer Outreach Safety Checks

I am requesting $48,000 in labor above the 2013 base year for 1.0 FTE to respond to customer calls about customer outreach safety checks on gas appliances. As set forth in the Direct Testimony of Sara Franke (Ex. SDG&E-13), SDG&E proposes to mail postcards to customers offering to have a field technician come out to the customer's premise to perform a safety check on all of the customer's gas appliances.[46] An estimated 5% of the postcard recipients (or 25,000 customers) are assumed to contact SDG&E about the program and 2% of them (or 10,000 customers) are expected to accept the offer. Of those who contact SDG&E, 1.6% (or 8,000 customers) will use self-service channels and 3.4% (or 17,000 customers) will talk to an ESS. As a result, the CCC will need to be prepared to answer questions and schedule appointments.

iv. New Rate Options and Programs

I am requesting $241,000 in labor above the 2013 base year for 5.0 FTEs to assist residential customers with new time varying rate options. Two of the five positions were previously funded through the SPP and will transition to O&M beginning in TY 2016.[47] With more time-variant pricing structures, such as the new SPP rates and rate reform on the horizon, SDG&E will need to pro-actively engage residential customers to be prepared and successful on new pricing plans. Ordering Paragraph 4 of CPUC D.14-06-029 in the rate reform proceeding (R.12-06-013) states, "Transitions to new rate structures should emphasize customer education and outreach that enhances customer understanding and acceptance of new rates, and minimizes

[45] See supplemental workpaper 4 attached to Ex. SDG&E-14-WP 1OO006.
[46] The costs associated with creating and mailing the postcards can be found in the Customer Communications and Research section of my testimony (see section II.B.3.c.x).
[47] See section II.A.3.c.ii of my testimony for a detailed description of the SPP.

and appropriately considers the bill impacts associated with such transitions." Furthermore, based on the questions set forth in the February 13, 2014 Assigned Commissioner's Ruling in R.12-06-013, the CPUC clearly wants to ensure the utilities prepare customers for the upcoming rate changes. In support of this, SDG&E is estimating that it will need to contact approximately 800,000 residential customers, which based on past experience will result in approximately 80,000 (or 10%) customers calling the CCC with additional questions and requesting rate enrollments. In order to support additional call volumes of 80,000 customers, the CCC will need an additional 5.0 FTEs.

v. CARE Enrollment

I am requesting $72,000 in labor for 1.5 ESS in the CCC to support the CARE program enrollment process. The CARE program provides customers who meet income and household size guidelines with a 20% discount off their SDG&E bill.[48] Starting in TY 2016, the CCC will be providing CARE enrollments by phone via the ESS as agreed to in the Residential Disconnection OIR proceeding (R.10-02-005) settlement agreement adopted by CPUC D.14-06-036.[49] As part of the settlement agreement, SDG&E agreed to seek funding for this activity as part of its Low Income Programs proceeding. To ensure SDG&E is properly staffed to begin taking CARE enrollments through the ESS in TY 2016, the additional expense is being requested as part of this GRC. However, if SDG&E receives funding through its Low Income Program Application which is anticipated to be filed with the CPUC in November 2014, an adjustment will be made to the CCC TY 2016 forecast.

Annually, approximately 25,000 customers request CARE applications through an ESS. The ESS mails the application to the customer, and SDG&E may or may not receive the application back from the customer. By having the ESS take the application over the phone, SDG&E expects to process 80%, or 20,000 applications, through a live ESS. Thus, 1.5 ESS are required to support the CARE enrollment process.

[48] For CARE program guidelines, see SDG&E's CARE tariff: http://regarchive.sdge.com/tm2/pdf/ELEC_ELEC-SCHEDS_E-CARE.pdfor CARE program guidelines.
[49] On April 1, 2014, in R.10-02-005, a Settlement Agreement was filed between SoCalGas/SDG&E, SCE, PG&E and the following Consumer Groups (Office of Ratepayer Advocates, The Utility Reform Network, Greenlining Institute, and the Center for Accessible Technology). The Settlement Agreement was approved on June 26, 2014 by CPUC D.14-06-036.

vi. Capital Project Impacts

The CCC TY 2016 forecast reflects a ($193,000) reduction in labor of 4.0 ESS positions resulting from the implementation of the IVR 2014 capital project #14023 (see section V.B.4 of my testimony). The SDG&E IVR manages incoming customer calls to the CCC. The application guides the customer through menus, which either provide functions for the customer to self-serve (e.g., extend the due date on their bill; arrange for a gas appliance service order) or collects information about the caller to route the call to the properly skilled agent. The IVR 2014 project will shorten the call flow from the IVR entry to main menu and sub-menu; eliminate unnecessary caller authentication; minimize steps to complete a gas appliance service order; revise prompt verbiage for improved clarity and succinctness; and add self-service opportunities to start/stop service. The enhancements are intended to improve the experience for the caller and entice callers to use self-service. The benefits of this project are to increase IVR self-service and to reduce calls to the ESS and ESS workforce.[50]

The CCC TY 2016 forecast reflects a ($217,000) reduction in labor of 4.5 ESS positions resulting from the implementation of the Smart Energy Advisor desktop ("SEAd") Phase 1 capital project #13009 (see section V.D.1 of my testimony). This project will replace the old Genesys Agent Desktop with a new web-based SEAd desktop. The SEAd project will deliver additional features and technical capabilities including telephony integration, customer search, verification, customer relationship overview, and customer wrap-up functions. Since 1997, the company's frontline ESS staff has been using a mainframe "green screen" to access customer information. This user interface requires multiple key strokes and screen views to address common customer questions and requests. The SEAd interface is a modern browser-based interface that consolidates multiple screens into one display and provides ESS with a single sign-on to various mainframe and web applications. Furthermore, the project also provides for an upgrade to the online help system that the ESS use to research information and procedures to assist customers. This project is intended to improve ESS performance and efficiency with a unified user interface, advanced technology, and enhanced functionalities. The benefits of this project are to control AHT increase by high bill, rate related, solar, and electric vehicle calls and

[50] See supplemental workpaper 4 attached to Ex. SDG&E-14-WP 1OO006.

to reduce overall AHT. This project will enable individual ESS to handle more calls and lower ESS cost of service.[51]

The CCC TY 2016 forecast also reflects a ($135,000) reduction in labor of 2.8 ESS positions resulting from the implementation of the SEAd Phase 2 capital project #14017 (see section V.D.7 of my testimony). This project will install new credit and collection functionality on the desktop to improve the overall user interface. The new functionality will allow ESS to process credit orders (e.g., evaluate customer credit standing, establish credit criteria, etc.) more efficiently and in less time. It is estimated that the new functionality would reduce the AHT for credit orders by 10 seconds. Additionally, improvement in user interface would reduce overall AHT by 1 second. This project is intended to improve ESS performance and efficiency with advanced technology and effective tools. The benefit of this project is to reduce the overall AHT by five seconds, thus eliminating the need for 2.8 ESS.[52]

9. Customer Contact Center Support

Table 29 below summarizes SDG&E's requested TY 2016 expenses for CCC Support.

TABLE 29

Forecast for CCC Support

CS - OPERATIONS, INFORMATION & TECHNOLOGIES			
Shown in Thousands of 2013 Dollars			
A. Customer Service Operations	**2013 Adjusted-Recorded**	**TY2016 Estimated**	**Change**
9. Customer Contact Center Support	$2,322	$2,395	$73

a. Description of Costs and Underlying Activities

CCC Support cost center activities include resource planning and scheduling; technology support; training; quality assurance; policy and procedures support; planning and analysis functions; and clerical support.

The calculations for the estimated expenses are included in workpapers, Ex. SDG&E-14-WP 1OO007.

[51] See supplemental workpaper 4 attached to Ex. SDG&E-14-WP 1OO006.
[52] See supplemental workpaper 4 attached to Ex. SDG&E-14-WP 1OO006.

b. Forecast Method

In the TY 2012 GRC, a 5-year historical average forecast method was used for CCC Support. I chose a base year forecast method because the workgroup experienced reorganizational changes that began in 2010 and completed in 2012. The changes consisted of moving the Level of Service ("LOS") team from SoCalGas to SDG&E in 2010. In addition, three new positions were added in 2012 to: (1) support analytics, and review processes and enhancements for CCC systems including IVR, ClickFox, Nexedia and Data Warehouse; (2) monitor real-time level of service, call volume forecasting, resource planning and dispatch for the ESSs; and (3) to assist in training, coordination, planning and scheduling. Therefore, the base year provides a reasonable starting point for future expenditures.

c. Cost Drivers

Table 30 summarizes the changes in the CCC Support estimated expenses for TY 2016.

TABLE 30

Changes in CCC Support TY 2016 Estimated Expenses

	TY 2016 - 2013 Change ($000)			
Customer Contact Center Support	**Labor**	**Non-Labor**	**Total**	**FTEs**
Capital Project Impacts		$73	$73	
Total TY 2016 Impact		**$73**	**$73**	

i. Capital Project Impacts

I am requesting $73,000 in non-labor above the 2013 base year for annual software maintenance fees for the SEAd Phase 1 and Phase 2 capital projects described in my testimony in sections V.D.1 and V.D.7, respectively. The annual maintenance fee is required for the use of the SEAd software and is assessed on the software license fee.

10. Other Office

Table 31 below summarizes SDG&E's requested TY 2016 expenses for Other Office.

TABLE 31

Forecast for Other Office

CS - OPERATIONS, INFORMATION & TECHNOLOGIES			
Shown in Thousands of 2013 Dollars			
A. Customer Service Operations	**2013 Adjusted-Recorded**	**TY2016 Estimated**	**Change**
10. Other Office	$871	$871	$0

a. Description of Costs and Underlying Activities

The Customer Service Other Office work group contains the Vice President of Customer Services and a Business Planning & Budget Project Manager. The Vice President provides oversight and leadership for all Customer Services activities. The Business Planning & Budgets Project Manager provides support and guidance to the Customer Service organization in all aspects of budget planning, outlooks, key performance indicators and acts as a liaison between operations and the financial department of the company.

The calculations for the estimated expenses are included in workpapers, Ex. SDG&E-14-1OO012.

b. Forecast Methodology

In the TY 2012 GRC, a 5-year historical average forecast method was used for Customer Service Other Office. I chose a base year forecast method because 2013 represents the current activity level and is not expected to change. Furthermore, this workgroup has a small number of FTEs whose work is not cyclical in nature and should remain constant for 2014 through TY 2016. Therefore, the base year provides a reasonable starting point for future expenditures.

c. Cost Drivers

I am not requesting any additional dollars above the 2013 base year for Customer Service Other Office.

B. Customer Service Information

Table 32 summarizes the total non-shared O&M forecasts for the listed cost categories.

TABLE 32

Non-Shared O&M Summary of Costs

CS - OPERATIONS, INFORMATION & TECHNOLOGIES			
Shown in Thousands of 2013 Dollars			
B. Customer Service Information	**2013 Adjusted-Recorded**	**TY2016 Estimated**	**Change**
1. Residential Customer Services	$5,576	$6,607	$1,031
2. Commercial & Industrial Services	$5,305	$5,789	$484
3. Communications, Research & Web	$7,940	$14,287	$6,347
4. Customer Programs & Projects	$2,721	$3,443	$722
Total	**$21,542**	**$30,126**	**$8,584**

1. Residential Customer Services

Table 33 below summarizes SDG&E's requested TY 2016 expenses for Residential Customer Services.

TABLE 33

Forecast for Residential Customer Services

CS - OPERATIONS, INFORMATION & TECHNOLOGIES			
Shown in Thousands of 2013 Dollars			
B. Customer Service Information	**2013 Adjusted-Recorded**	**TY2016 Estimated**	**Change**
1. Residential Customer Services	$5,576	$6,607	$1,031

a. Description of Costs and Underlying Activities

The Residential Customer Services ("RCS") represents a department formed in 2012 with the objective of centralizing key functional groups that deliver, manage or support residential customers. The formation of the RCS department involved combining various functions that were previously located in other SDG&E Customer Service departments to provide an integrated working group focused on delivering and enhancing the overall customer experience for the approximately 1.25 million residential residences in the region. The key subgroups within the new RCS department are the CCC, Residential Products and Services, Residential Customer

Experience and Engagement, Residential Support Services, and Customer Assistance. While there are many other departments and groups across SDG&E that deliver specific programs and services directly to residential customers, the overall mission of the RCS is to ensure SDG&E provides consistent, timely, efficient, and responsive service to residential customers and anticipate their needs to proactively assist them with energy decisions. Additional description of each RCS sub-group is provided below.

- Customer Contact Center

Descriptions of activities and all associated costs for the Customer Contact Center are included in the Customer Operations section of my testimony. See section II.A.8 and section II.A.9 for CCC Operations and Support costs, respectively.

- Residential Products & Services

The mission of the Residential Products & Services group is to coordinate and manage the overall Products & Services Strategy within RCS and to align with other departments who directly provide services to the residential customer segment. This group is responsible for maintaining the overall Residential Customer Services strategic plan, as well as developing business cases for new value-adding products and services that enhance convenience, choice and control for the residential customer segment. The services developed by this subgroup tend to fall in the category of "Home Safety and Convenience" services that help customers save time and money through both energy and non-energy-related services that complement the SDG&E core business.

- Residential Customer Experience and Engagement

The Residential Customer Experience and Engagement group consists of several functions with the overall mission is to continuously improve the customer experience and to enable customers to adopt smart energy solutions and facilitate informed energy management decisions by delivering the right information to the right customers through the right channels at the right times. The functions included in this area are Customer Analytics, Residential Marketing, Customer Outreach, and Employee Outreach. The Customer Analytics team is responsible for determining which customers are likely to adopt various offers of programs, services, rates or tools. The Analytics team also measures the effectiveness of marketing campaigns in order to inform future marketing campaigns. Residential Marketing is responsible for promoting other services such as My Account. The Residential Marketing group is also

responsible for the fulfillment of collateral orders that are sent to customers. The Residential Outreach group is responsible for the plans and strategies around promoting residential programs and services that focus on the income-challenged segments such as CARE and Energy Savings Assistance ("ESA") programs, as well as Energy Efficiency and Demand Response programs designed for non-commercial customers in the region. Residential Customer Analytics supports the quantitative analysis functions that support focused outreach such as outreach campaign analysis, and tailored program development. The Residential Outreach group is responsible for "feet on the street" efforts in communicating directly to customers and to engage employees as ambassadors to customers by educating and informing external stakeholders about SDG&E products, services, and solutions.

- Residential Support Services

SDG&E's Residential Support Services team is responsible for providing regulatory, policy, and financial tracking and reporting support for RCS's programs and services for special needs customers. This includes, but is not limited to, the ESA, CARE, and Medical Baseline Programs. It is responsible for preparing various regulatory filings, regulatory and management reports, and tracking and reporting of all related expenditures for the Residential Customer Services Department. Residential Support Services is primarily funded through the Public Purpose Surcharge. Only one FTE is charged to base rates to provide training and other regulatory support, for non-CARE and ESA Program activities, to the CCC and Branch Office employees.

- Customer Assistance

SDG&E's Customer Assistance delivers programs and services to special needs customers. Many of SDG&E's customers with special needs have limited English proficiency. The State mandated CARE and ESA programs are managed by Customer Assistance, but these program costs are funded through the Public Purpose Surcharge and not through base rates, and are not included in the O&M costs as described in this testimony, except for specific non-refundable elements as noted below. The Customer Assistance department supports special needs customers via the following programs or services:

ESA Program Natural Gas Appliance Testing ("NGAT") or carbon monoxide ("CO") testing, is a safety-related program for Customer Assistance's ESA Program participants. SDG&E conducts CO testing on homes weatherized through the ESA Program in accordance

with the Statewide Energy Savings Assistance Program Installation Standards and the Statewide Energy Savings Assistance Program Policy and Procedures Manual.[53] CPUC directives order SDG&E to charge the costs for the NGAT program to base rates rather than to the public purpose program funds.[54]

Medical Baseline Program provides additional baseline allowance to customers that have certain medical conditions that require life support equipment or have increased heating or air conditioning needs due to their medical condition. Costs for managing this program include program administration, collateral materials, applicant enrollment, and education and outreach efforts.

Neighbor-to-Neighbor Program provides bill payment assistance of up to $200 per year to customers experiencing financial hardship. This program is not income based, and is open to customers who are experiencing a temporary financial hardship and do not qualify for state or federal assistance. O&M expenses are related to program management, including outreach and the cost of collateral materials.

Low Income Home Energy Assistance Program ("LIHEAP") is a federally funded assistance program administered by the state that provides bill payment assistance and home weatherization services to income qualified customers. SDG&E works with contracted LIHEAP agencies to ensure that payments are received and applied correctly to customers' bills. Although the LIHEAP program is funded externally, SDG&E's costs support customer outreach and administration of this program.

2-1-1 is a telephone service that provides callers with information on community, health and disaster services available in many major cities across the country. SDG&E Customer Assistance actively coordinates with the 2-1-1 program in San Diego so that information on Customer Assistance programs is provided to 2-1-1 callers.

Public Safety Outreach is conducted by the Customer Assistance department to raise customer awareness of fire safety and general emergency preparedness.

The calculations for the estimated expenses are included in workpapers, Ex. SDG&E-14-1OO008.

[53] Installation Standards section(s) 24; Policies and Procedures section 10.
[54] D.08-11-031 OP 65; D.05-04-052 Finding of Fact 10; D.00-07-020 Finding of Fact 44.

b. Forecast Method

I chose a base year forecast method for Residential Customer Services because it represents the first full year the RCS department was operational. Labor increases were needed to support services for the rapidly growing electric vehicle and residential photovoltaic markets. In addition, several changes to electric rates in 2013 required an increase in education and outreach resources to address significant increases in customers' utility bills which will continue with activities such as NEM reform and residential rate reform. The associated spike in non-labor expenses included the launch of a new customer behavioral program (Manage Act Save program discussed in the following section) designed to encourage energy management behaviors, and increased education on rate structures and how they impact utility bills. These activities are needed to help customers gain a more holistic understanding of how to mitigate potential bill increases. Therefore, the base year provides a reasonable starting point for future expenditures.

c. Cost Drivers

Table 34 summarizes the changes in the Residential Customer Services estimated expenses for TY 2016.

TABLE 34

Changes in Residential Customer Services TY 2016 Estimated Expenses

Residential Customer Services	TY 2016 - 2013 Change ($000)			
	Labor	Non-Labor	Total	FTEs
Adjustment for Manage Act Save		($438)	($438)	
Energy Management Tool – Product Manager	$95	$3	$98	1.0
Energy Management Tool – licensing, hosting and maintenance fees		$582	$582	
Energy Management Tool – batch rate comparisons		$75	$75	
Customer Data Analytics and Technical Studies – labor	$230	$7	$237	2.5
Customer Data Analytics and Technical Studies – tools and consulting services		$327	$327	
Plug-In Electric Vehicle Outreach & Education		$100	$100	
Rate Reform		$50	$50	
Total TY 2016 Impact	**$325**	**$706**	**$1,031**	**3.5**

i. Adjustment for Manage Act Save

The Residential Customer Services TY 2016 forecast reflects a ($438,000) reduction in non-labor for third party vendor costs. In 2013, SDG&E launched a new customer behavioral program, called Manage Act Save, designed to encourage energy management behaviors and increased education on rate structures and how they impact utility bills. The one-time implementation costs were included in the 2013 base year and therefore a corresponding adjustment has been made to TY 2016.

ii. Energy Management Tool ("EMT")

I am requesting $95,000 in labor and $3,000 in associated employee non-labor above the 2013 base year for a Product Manager. This position is currently funded through the SPP and will transition to O&M beginning in TY 2016. The Product Manager is responsible for managing the third party contract for SDG&E's online EMT[55] including vendor relations, contract changes, and facilitating new product features implemented through monthly and quarterly vendor product releases. In addition, the position is responsible for leading and managing the oversight of production defects and facilitating new change requests related to

[55] See section II.A.3.c.ii of my testimony for a detailed description of SDG&E's online EMT.

SDG&E requested product enhancements. For example, when changes are made to SDG&E's billing system in compliance with CPUC mandates or as a result of another project, such as default CPP for medium business customers[56] and residential rate reform, corresponding changes will need to be made to the EMT to keep relevant and interdependent systems synchronized. This position will be responsible for coordinating these activities with internal stakeholders, the IT organization and the third party vendor which is key to a successful implementation.

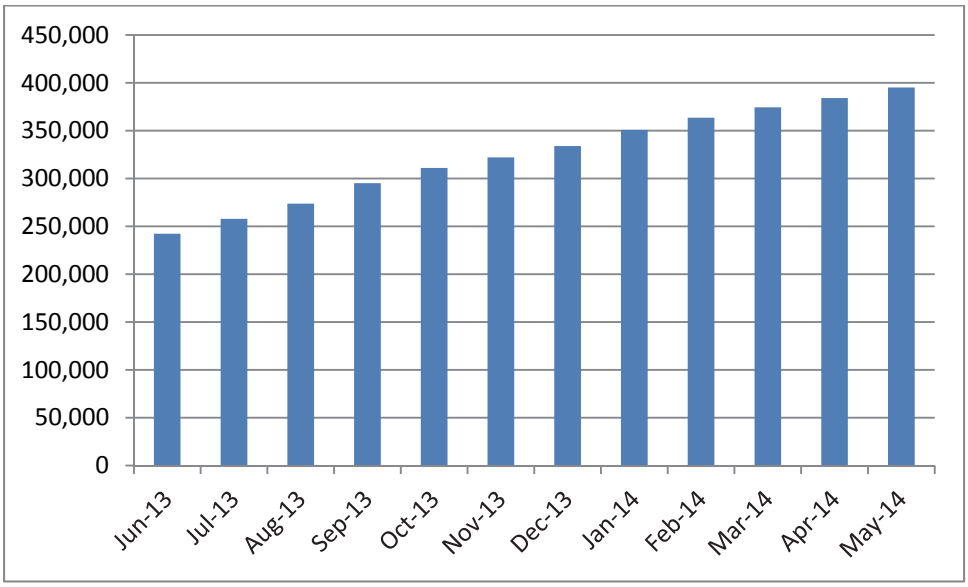
I am also requesting an additional $582,000 in non-labor above the 2013 base year for ongoing third party licensing, hosting and maintenance costs.[57] The third party vendor supports SDG&E's EMT in addition to supporting one of the key customer solutions developed as part of the SPP. The EMT has been used by over one fourth of SDG&E customers since its introduction, and 80% of respondents to an SDG&E customer survey in 2012 said the information was somewhat or very useful. As can be seen from Chart 5 below, since June 2013 (which is the time SDG&E began tracking EMT users) the number of customers using the tool has increased steadily.

[56] Similar to default Critical Peak Pricing (CPP-D) rolled out for large business customers in 2008, CPUC D.08-02-034 adopted default CPP for medium business customers. SDG&E will implement default CPP for medium business customers in 2015 with the completion of the CPP-D capital project #13021 discussed in section V.C.3 of my testimony.

[57] See supplemental workpaper 1 attached to Ex. SDG&E-14-WP 1OO008.

CHART 5

Number of Customers Using the Energy Management Tool



In addition to the EMT, SPP also developed a Personalized Plan Comparison Report. This personalized report allows SDG&E to proactively provide customers with a customized annual cost comparison of their eligible pricing plans based on their last 12 months of energy usage. Our ability to utilize this functionality is called batch rate comparison. SDG&E is able to run batch rate comparison for up to 250,000 meters per month. The cost for this service was previously funded by the SPP and will transition to O&M in TY 2016.

In addition to maintaining the current level of batch rate comparisons provided to customers, SDG&E anticipates the need to reach out to more customers. With the introduction of the new SPP rates in 2015 and other future rate changes (residential rate reform, SDG&E's Rate Design Window application, etc.) there will be a need to provide this to a larger population of our residential customers. SDG&E is requesting $75,000 to pay for the increased licensing fees to offer this personalized comparison to a larger portion of our residential population. As SDG&E implements rate structures that require more engagement by customers it is critical that we have the ability to provide this kind of customized recommendation on a customer level.

iii. Customer Data Analytics and Technical Studies

I am requesting $230,000 in labor and $7,000 in associated non-labor employee expense above the 2013 base year for 2.5 FTEs to support customer data analytics for current and future time variant rates. The three positions include a full-time Project Manager, a full-time Senior

Market Analyst, and a Business Systems Advisor (0.5 FTE). The positions were previously funded by the SPP and are being transitioned to O&M in TY 2016. Further, I am requesting $327,000 in non-labor above the 2013 base year to fund various internal tools and consulting services focused on customer data and analytics, specifically Clickfox, Nielsen, SPSS (a statistical package for social sciences), and a continual refinement of our customer segmentation model. Most of these activities are currently funded through the SPP and will also transition to O&M in TY 2016. These positions will build on the work done on the segmentation study (see section II.B.3.c.i of my testimony) using those findings and work product to provide analysis and further findings specific to rates and rate reform related activities.

In collaboration with other areas of the company, these positions have conducted extensive analysis of both internal business processes as well as customer-focused analytics to ensure SPP solutions are in line to meet business and customer needs. They developed and are currently implementing systems and processes that will serve as the foundation for SDG&E's customer analysis and internal data segmentation activities. Therefore, as part of the SPP, in order to provide the best possible customer experience, new customer analytics tools have been incorporated into our business processes to achieve maximum efficiencies in the areas of maintenance of customer segmentation, customer behavior analysis, bill impact research and predictive modeling, and online presentment of SDG&E's rate offers. The foundational work provided by SPP will be expanded and leveraged to aid in the development and implementation of new rates and services as part of overall rate reform. In order for these tools to continue to provide accurate information to customers, they have to be updated for structural changes and the addition of new rates.

It is important that we are able to continually review and refine customer analytics as our customers' needs change and our business transforms in response to changing customer dynamics. Once the SPP project is fully implemented, the need for these positions to provide ongoing service to customers and enrich the internal understanding of customers continues. They will serve as the subject matter experts for the systems they were instrumental in developing and transfer the knowledge into normal operations. As software becomes more complex and rates require more engagement, analytics tools (such as Clickfox, Nielsen, SPSS) as well as a continual refinement of our customer segmentation model will become even more

relevant and necessary. For these reasons, SDG&E is requesting funding to pay for the cost of maintaining and utilizing these tools after the completion of the SPP.

The Business Systems Advisor utilizes Clickfox and other analytical tools to evaluate marketing and outreach campaign success against key metrics that we believe are necessary to maintain high customer satisfaction. Clickfox allows us to measure and provide a holistic view of customer actions resulting from individual marketing and outreach campaigns, which will continue to be needed after the SPP project is in place. Clickfox has an annual cost of $48,000.

The Program Manager is instrumental in the requirements and design phase of new business systems and web interfaces to ensure that management reporting and market business requirements are addressed in all new systems, and identify areas of improvement.

As new rates are introduced and the structure of rates evolves, it is imperative that we have the ability to predict the impact to individual customers, which is a role of the Senior Market Analyst. As part of the SPP, we are currently able to quickly review and understand bill impacts for our time-of-use rate offerings. For all other rates, a manually-intensive, predictive-modeling process is necessary. Determining the bill impacts of new rates to our customers is a critical area for continual refinement and analysis. Understanding bill impacts at the individual customer level will enable us to define our outreach and education strategy, proactively reach out to impacted customers and provide recommendations around energy behavior and rate selection specific to the individual customer. The Policy and Planning Division of the CPUC recognizes the importance of this as discussed in their May 15, 2013 white paper where they state, "If the customer is to make the transformation into an energy manager, he/she will require a significant amount of education, advice and other personalized resources that will help to facilitate and hopefully automate many of the energy management actions."[58]

This team will also explore and examine data from multiple disparate sources and identify opportunities to optimize marketing, outreach and customer experience around the products and services offered by SDG&E. They will be the key individuals responsible for accessing and evaluating a variety of data repositories and maintaining segmentation to enable consultations with internal clients on a wide range of issues related to new and potential customer offerings, along with marketing implementation strategies. To ensure segmentation is

[58] White paper can be found at: http://www.cpuc.ca.gov/NR/rdonlyres/A0A816A2-9F1C-4F34-90DB-C23551F09738/0/PPDCustomerRoleMay15th.pdf.

incorporated in this process to enable enriched understanding of customers in connection with internal data, we are requesting $1,390 for the annual update to the tracking system, $2,293 annually for the SPSS annual license for programming and applying the scoring of new customers to the customer database as well as updating previously scored customer records. $152,167 is being requested for consulting services in order to incorporate segmentation into business plans because currently the SPP and Communications teams are the primary business groups utilizing segmentation. In order to support current and future changes that will affect our customers, we will need to transition additional business groups to the marketing platform as well as continually adjust and enhance the system. Finally, I am requesting $123,150 annually for the Nielsen licensing fee, which will provide household level census based data that is a critical element in the segmentation algorithm.

Consequently, these positions and tools are necessary to provide a wide range of technical and analytic support, pertaining to market statistics, population analysis, sample selection, support for pilot studies, including but not limited to the development and maintenance of online tracking reports and real-time dashboard presentment of key performance metrics. Segmentation based on customer attitudes and behaviors has been adopted by SDG&E, which has enabled us to provide customized offerings to customers based on preferences for tools, communications, etc. The key to the success of this approach is the ability to categorize customers into individual segments and this process requires continuous updating of accounts for moving in and out of the service territory and overall changes to customer behavior such as the increasing customer engagement with online tools and electronic channels. Customers will receive the tailored and personalized offerings they expect to be aligned with their needs and preferences. The use of customer analytics tools and individuals is key to our success in enriching our understanding of customers and their experience, understanding bill impacts, and maximizing the effectiveness of outreach and education campaigns.

iv. Plug-In Electric Vehicle ("PEV") Outreach and Education

I am requesting $100,000 in non-labor above the 2013 base year for targeted outreach and education costs to support the growing number of customers in SDG&E's service territory expected to purchase an electric vehicle. In D.11-07-029, the CPUC established guidelines for education and outreach for electric vehicles and ordered SDG&E to "use funds to provide its customers with information on metering arrangements, rates, demand response programs,

charging equipment, installation, safety, reliability, and off-peak charging."[59] The following Table 35 depicts the estimated number of electric vehicles in SDG&E's service territory in 2011-2013 and the expected growth in PEV sales through 2020.[60]

TABLE 35

PEV Customer Growth

Year	PEVs
2011	963
2012	2,140
2013	5,194
2014	8,317
2015	21,580
2016	39,978
2017	59,828
2018	77,735
2019	99,439
2020	121,996

In 2013, the purchase of PEVs more than doubled from the prior year and that trend is expected to increase for the next several years, thus increasing the campaigns (e.g. events and direct mailings) that will need to be launched for these customers. Educating customers about the environmental and societal benefits of PEVs is consistent with the State's policy goals related to the reduction of greenhouse gas emissions set forth in AB 32 and adopted by D.11-07-029, ordering paragraph 8.

v. Rate Reform

I am requesting $50,000 in non-labor above the 2013 base year for the development, production, and distribution of new collateral pieces to inform customers about rate reform in support of the CPUC's OIR 12-06-013. As previously mentioned in section II.A.8.c.iv of my testimony, Ordering Paragraph 4 of CPUC D.14-06-029 in OIR 12-06-013 states, "Transitions to new rate structures should emphasize customer education and outreach that enhances customer understanding and acceptance of new rates, and minimizes and appropriately considers the bill impacts associated with such transitions." Furthermore, based on the questions set forth in the

[59] D.11-07-029, Ordering Paragraph 8, in R.09-08-009.

[60] Source for 2011-2013 sales is based on the number of vehicles observed in SDG&E's service territory (DMV data, rebate programs, dealerships, auto manufacturers, billing, etc.). Source for 2014-2020 sales is the CEC California Energy Demand 2014-2024 Final Forecast, SDG&E Mid-Case forecast: http://www.energy.ca.gov/2013_energypolicy/documents/#reportsnomeeting.

February 13, 2014 Assigned Commissioner's Ruling in OIR 12-06-013, the CPUC clearly wants to ensure the utilities prepare customers for the upcoming rate changes. These pieces will fulfill the customer need for information on new rate options and related services. The communications about these new rate options and related developments will require an integrated approach using a variety of channels. While there has been a shift to electronic channels over recent years, printed pieces are still preferred by some customers. They are often used at outreach events and meetings in discussions with customers as well as customer location visits.

Development costs include writing, design, and printing of the pieces. The content would also be re-purposed for use on SDG&E's website, which will help offset development costs. Printing quantities would be approximately 15,000 each, to keep printing costs low while still being able to respond to customer needs. Costs also include estimates for mailing of approximately one quarter of the pieces printed to customers calling and requesting printed pieces.

Without these pieces, an information void would exist for customers attending events and meetings, in particular. As they become interested in the high level topics presented at these events, they then need additional detailed information to help them make informed decisions and take necessary action.

2. Commercial and Industrial Services

Table 36 below summarizes SDG&E's requested TY 2016 expenses for Commercial and Industrial Services.

TABLE 36

Forecast for Commercial and Industrial Services

CS - OPERATIONS, INFORMATION & TECHNOLOGIES			
Shown in Thousands of 2013 Dollars			
B. Customer Service Information	**2013 Adjusted-Recorded**	**TY2016 Estimated**	**Change**
2. Commercial & Industrial Services	$5,305	$5,789	$484

a. Description of Costs and Underlying Activities

SDG&E understands and values the significant contribution provided by both business customers and the military to the regional economy and to our state; SDG&E is committed to providing these customers the level of customer service needed for them to survive and thrive. To provide timely and responsive customer support, it is important to understand the changing needs of customers, which requires building strong and collaborative relationships with business customers and partnerships with the myriad of trade organizations that represent the smaller business entities.

Within SDG&E's service territory, in 2013, business customers represented approximately 160,000 electric meters with sales totaling $1.6 billion or 57% of all SDG&E electric sales and 34,000 gas meters, representing sales of $137 million or 31% of all SDG&E gas sales. Commercial and Industrial ("C&I") Services provides education and communication materials on energy rates, tariff services, safety, and regulatory information to all business customers through various outreach channels. C&I Services uses research and a collaborative process to identify and provide value to its customers and seeks to continuously improve the quality and content of its outreach and support activities. To effectively meet the wide and growing array of customers' complex energy needs, SDG&E delivers customer services through a team of highly trained and specialized customer contact personnel. C&I Services' activities are broken down into three functional areas: Small & Medium Business Account Management, Large Customer Account Management, and Customer Services Staff Support.

- Small & Medium Business Account Management ("SMB")

This workgroup serves the small and medium business customer[61] through the development of targeted messages and outreach strategies. In 2013, the small-medium business customers represented approximately 157,000 meters providing sales of approximately $615 million. Specifically, this workgroup leverages customer research[62] as its starting point to effectively communicate with the small and medium business customers about the availability of programs and services, rate education, and any mandated communications. This segment outreach is typically aimed at specific groups of customers with a targeted message or service

[61] Small business customers are defined as customers whose monthly kW demand averages less than 20 kW, whereas medium business customers' average monthly kW demand is between 20-200 kW.
[62] The SDG&E Small Business Customer Insight Panel is made up of 900 customers who are surveyed on a monthly basis.

offering (e.g., direct access customers, net energy metering customers, electric only, etc.) and complements Customer Communications & Research outreach efforts, which involve broader messaging that is delivered through mass media, such as television, radio, and print.

The small and medium business customer looks to SDG&E to provide them with information regarding energy issues that will directly impact their business, to keep them apprised of all regulatory matters and rate changes, tips on how to save money on their energy bill, and for safety-related messages. Unlike the large customer who may employ skilled engineering staff to help them manage their energy usage, the small and medium business owners frequently fill multiple roles and may lack the expertise, background or even the time to understand complex energy messages. Because of the limited resources they can dedicate to energy issues, these customers need to rely on SDG&E to customize and make the myriad of energy rate and tariff options easy to understand and use. These business owners may also have language or cultural differences to overcome; therefore, communications must be easily understood and its relevance obvious to the diverse group of customers. SDG&E also understands that some of these same characteristics or factors make this segment one of the most difficult to reach, and therefore believes it is important to leverage its memberships and participation in trade associations in order to maximize the outreach capability. C&I Services delivers its small and medium business support through the following channels:

Customer Energy Specialists directly help residential and small business customers with more complex problems that the Customer Contact Center is unable to resolve and that typically require a site visit for resolution. They work with the customer over the phone to explain rate options and billing issues and make site visits to further research and satisfy customer issues (billing, meter service, high bills), provide tips on how to reduce bills, and address any safety issues found.

Account Executives ("AEs") support a portion[63] of the small and medium business customer segment to help customers understand their rate options, perform rate comparisons, and general education and outreach on how customers can manage their costs. Outreach and education is done through direct mail, telephone, individual and group meetings or presentations.

Trade Association Advisors are responsible for outreach to over 75 trade, business, and chamber organizations targeting the small business segment and is an active member in many of

[63] This includes customers with average monthly demand between 20-499kW.

these organizations, providing an SDG&E point of contact for the membership and representative of small business energy matters.

Outreach Campaigns group supports and/or develops educational campaigns to help customers better understand their rates and billing, impact of seasonal rate changes, tips for reducing bills, and increased awareness of programs and services. SDG&E uses multiple channels to reach these customers including direct mail, email, web, and social media.

- Large Customer Account Management

In 2013, large business customers represented approximately 40,000 meters with usage totaling roughly 45% of all energy sales for business customers.[64] This segment of large customers paid over $795 million in utility bills in 2013. Account Management services are provided to large commercial, industrial and governmental customers through its Account Executive ("AE") who are supported by management, staff and administrative personnel. Each AE manages an average of 2,300 electric and natural gas accounts (40-70 customers) and is assigned to a unique market segment in order to have more in-depth market knowledge and provide more customized service. The AE customer interactions are critical to ensure customers are well informed about rate and service options, have someone that is familiar with their large and more complex service needs and can resolve their unique service issues quickly, safely and reliably. The AE is also responsible for assisting their customers with their service delivery needs, complying with tariff rates and rules, and maintaining customer satisfaction. An annual quality of service customer survey taken in 2014 reveals 87% of customers rated the service provided by their AE as excellent/very good. AE quality of service scores have been at or above 86% over the past three years.

The AE provides the single point of contact with SDG&E for these large business customers and assists them with billing questions, rate analysis, credit issues, inquiries regarding service or facility infrastructure changes, energy management questions, regulatory decisions, tariff changes, other utility programs such as direct access or distributed generation, power quality, engineering support, or general energy industry uses. There are 12 broad categories of services provided to Large Customer Account Management as described in the following section.

[64] Large business customers are defined as customers with electric demand equal to or greater than 500 kW or 250,000 therms.

Customer Services Staff Support provides specialized assistance and expertise in a number of different areas including development of outreach tools and materials, employee and customer education materials and training, infrastructure project coordination, billing assistance services, reliability information and assistance, rate analysis and engineering, and technical assistance on end use equipment. While some of these services, described below, support all business customers, others are directly supporting the Large Account Management segment.

Outreach & Education includes development of customer communication and education materials, including regulatory proceedings and mandated communications, emergency event and safety communication, quarterly customer newsletter, rate updates, and other information important to customers. In addition, as concern over the environment leads to adoption of more and more energy-related legislation and regulation, customers look to their utility for the resources to help them understand how this impacts their day-to-day business and what new requirements exist, the steps they must take to be compliant, and how this will impact their energy consumption habits. SDG&E is developing new collateral, seminars and workshops to help address the growing demand for more information to support their efforts to become more sustainable, and to understand the impact of changes to regulation and legislation.

Account, Billing and Rate Management Services are provided to large customers who can have many or even hundreds of accounts. This function helps customers reconcile their bills and understand their rate options, credit requirements, and service change requests.

Infrastructure Coordination works with the customer and SDG&E's Project Management on construction projects, relocations, customer-requested maintenance outages, service upgrades, pulse meters to integrate meter data with customer energy management systems, and meter change outs. They develop the project scope, represent the customer's needs, explain utility requirements, and help the customer complete the necessary documentation.

Safety and Critical Event Support coordinates the safety education and outreach efforts to support all business customers. As a result of the wild fires in 2007, the winter storms in 2010, and the more active earthquake activity, SDG&E identified a growing need to help its customers be better informed and prepared to respond to emergency situations regarding their energy service.

Engineering Support provides customers with technical assistance in the selection, application and utilization of equipment, and assists in the preliminary analysis of distributed

generation, photovoltaic or other applications. They help the customer understand the bill impacts of adding equipment and/or changing operating schedules. It also provides technical support for regulatory compliance.

Distributed Generation ("DG") Facilitation facilitates the installation of DG for customers by assisting customers with the interconnection process. The technical staff oversees projects during construction; reviews cogeneration annual operating data for Public Utilities ("PU") Code section 218.5; educates customers on section 218.5 issues and makes technical recommendations. They also monitor and respond to DG regulatory proceedings, workshops, and tariff issues.

Tariff Development and Review monitors and participates in proceedings that impact large commercial and industrial and government customers, including but not limited to the Biennial Cost Allocation Proceeding ("BCAP"), Rate Design Window ("RDW"), Dynamic Pricing Application, Demand Response Programs ("DRP"), Net Energy Metering, Feed-In Tariff, and Firm Rights Access. The staff also prepares rate analyses for customers and provides internal and external rate training.

Customer Choice team is responsible for implementing and managing SDG&E's Customer Choice Programs, which include Electric Direct Access ("DA"), Community Choice Aggregation ("CCA"), the Noncore Gas Transportation Program for large customers, and the Core Aggregation Transportation ("CAT") Program. This group performs a wide variety of functions to support and educate customers seeking these alternate energy services. The Customer Support staff interfaces with Electric and Gas Service Providers ("ESPs") on a daily basis providing internal and external education, and proactive communication regarding the applicability and operations of the programs. They actively participate in CPUC proceedings and workshops, collaborating with stakeholders in the development and management of the initial and ongoing program implementation process, most recently including the limited re-opening of DA pursuant to Senate Bill 695. In addition, this staff is responsible for customer and ESP contract management including administration and compliance with Sarbanes Oxley ("SOX"), conducting a biennial gas pipeline capacity open season.

Gas Transportation Administration provides gas aggregation and transportation services for its core and noncore self-procurement customers. This activity involves working with customers and their third party providers and managing the pipeline capacity open season. Every

contract goes through a rigorous SOX compliance review and is approved by management. SDG&E staff provides monthly balancing reports to customers and their gas providers and a monthly core storage report for highlighting firm withdrawal rights or injections.

Power Quality Services responds to customer inquiries about possible voltage or power disturbance problems. Customers can receive an onsite assessment describing how they can improve their electrical reliability and power quality for their facility and sensitive electronic equipment. SDG&E also offers workshops to help customers better understand the technical subject of power quality.

Special Contracts and Services supports development of special contracts to meet the needs of customer projects that don't conform to existing rules and yet provide value to and do not harm our customers. These special contracts require analysis to ensure that these customers' interests are not being cross-subsidized. In addition, they require CPUC approval. Examples are development of a contract in support of Native American access to Western Area Power Administration power and interconnection of the San Diego Unified Port District. Each year there are unique proposals that SDG&E needs to assess and, if needed, file with the CPUC.

The calculations for the estimated expenses are included in workpapers, Ex. SDG&E-14-1OO009.

b. Forecast Method

In the TY 2012 GRC, a 5-year historical average forecast method was used for C&I. I chose a base year forecast method because in late 2012 C&I reorganized to include a Customer Experience & Engagement team and in mid-2013 a Small and Medium Business team was established. Therefore, the base year provides a reasonable starting point for future expenditures.

c. Cost Drivers

Table 37 summarizes the changes in C&I estimated expenses for TY 2016.

TABLE 37

Changes in C&I TY 2016 Estimated Expenses

C&I Services	TY 2016 - 2013 Change ($000)			
	Labor	Non-Labor	Total	FTEs
New Rate Options and Programs	$310		$310	3.5
Improving Outage Activities - Project Manager	$107		$107	1.0
Process Improvements	($8)		($8)	(0.2)
Software Licensing Costs		$75	$75	
Total TY 2016 Impact	**$409**	**$75**	**$484**	**4.3**

i. New Rate Options and Programs

I am requesting $310,000 in labor above the 2013 base year for one Business System Analyst at $75,000, one Customer Energy Specialist at $88,000, one Account Executive at $97,000, and a Project Specialist at $50,000 (representing 0.5 FTE) to support small and medium business customers. The Customer Energy Specialist and Project Specialist were previously funded through the SPP and are transitioning to O&M in TY 2016.

The Small and Medium Business (SMB) team was created in 2013 to individually serve customers with demands between 20kW to 500kW. Prior to the creation of the SMB team, customers in this category were served only through the business CCC and did not have individualized service. The additional FTEs being requested will increase the amount of small and medium customers SDG&E is able to provide individualized services to. The complexities of SDG&E's programs and pricing options require a new, concerted effort by SDG&E to assist customers at their location. The additional employees will provide personalized product offerings to small and medium business customers. Some of these offerings include: new service setups, project planning and coordination, account management, energy efficiency program support, rate analysis, and help with SDG&E's online tools. The activities will be segregated as follows:

- The Account Executive will directly support customers in the rate selection process, increase customer satisfaction, and support the delivery of the best rate option to each customer. They will also support on a going-forward basis the SPP rate options by providing one-on-one guidance to those customers that could potentially benefit from being on the new rate but need an action plan to succeed. The new rate options introduce a new time-of-use concept to customers that have historically been on a much simpler flat

rate requiring more support for the small and medium sized business customers. These customers will have several rate choices based on their load profile and consumption. Some of the available rates can benefit the customers if they participate on energy efficiency and demand response programs, and therefore these customers need individualized assistance in order to guide them through the process.

- The Project Specialist position will assist Account Executives in their efforts to serve these customers, including responsibilities such as new self-serve tool deployment, education development, and identification of process improvements.
- The Business System Analyst position will support customers with rate analysis and transactions related to several rate offerings, including but not limited to CPP-D, NEM, and the new SPP rates.
- The Customer Energy Specialist position will support the SMB customer base by meeting customers in the field to address high bill concerns, offer energy efficiency suggestions, explain rate options, and address billing issues.

Overall, this segment of customers will experience an increase in customer satisfaction by being provided a "One Stop Shop" approach. They will have an internal advocate for any concerns, issues, and future strategic approaches in the company. Without the additional employees to support SDG&E's small and medium business customers, all support would be relegated to SDG&E's business CCC and individualized support for this large subset of business customers would be negatively impacted.

ii. Improving Outage Activities

I am requesting $107,000 in labor above the 2013 base year for a Project Manager. In early 2014, C&I Services hired a Project Manager who is responsible for managing and coordinating activities leading to improved outage management and communication processes.

Currently customers are notified of upcoming planned outages and service restoration by SDG&E's pre-recorded outbound dialer system. Future process improvements will include offering customers more outage communication channels such as email and text messaging. Additionally, the outage map on SDG&E's website will be enhanced to allow customers to see planned outages a day ahead and track the planned outages in their area. The Project Manager will also focus on providing customers with better estimated times of restoration and minimizing

outage rescheduling or cancellations. These improvements align with the 2012 J.D. Power and Associates Utility Outage Communications Preferences Report which indicates:

- Customers want to be kept informed during outages and knowing the cause of the outage improves satisfaction among customers who experienced the outage.
- Customers who receive outage information through electronic sources, such as websites, email and text, are more satisfied with utility outage performance than those not receiving information electronically.
- Outage maps in particular please customers.
- Providing an estimated time of restoration is the most important point of information a utility can provide its customers.

Through ongoing process improvements planned and unplanned outage communications will be well coordinated and more readily available to customers, customers will receive more personalized interaction, and the development of reports/metrics will allow SDG&E to better address customer concerns.

iii. Process Improvements

In addition to the above request, the C&I TY 2016 forecast reflects a reduction of ($8,000) in labor due to process improvements identified in the Planned Outage area. In the past when a planned outage was going to take place the Planned Outage Coordinator made a field visit to business and life support customers to ensure they were prepared for the outage. To improve this process, beginning in 2014, SDG&E began contacting these customers via telephone rather than making a field visit. If we are unable to reach the customer by phone the Planned Outage Coordinator will schedule a field visit. In addition, in 2014, company vehicles were relocated to the same location as the Planned Outage Coordinators. These improvements result in an ($8,000) labor reduction in TY 2016.

iv. Software Licensing Costs

I am requesting $75,000 in non-labor above the 2013 base year for annual software hosting fees related to the CPP-D capital project (project #13021). As described in section V.C.3 of my testimony, this capital project will implement default CPP for medium business customers in compliance with CPUC D.08-02-034 in SDG&E's Rate Design Window application (A.07-01-047). The non-labor costs will cover the associated software hosting fees for this project.

3. Customer Communications, Research & Web

Table 38 below summarizes SDG&E's requested TY 2016 expenses for Communications, Research & Web.

TABLE 38

Forecast for Communications, Research & Web

CS - OPERATIONS, INFORMATION & TECHNOLOGIES			
Shown in Thousands of 2013 Dollars			
B. Customer Service Information	**2013 Adjusted-Recorded**	**TY2016 Estimated**	**Change**
3. Communications, Research & Web	$7,940	$14,287	$6,347

a. Description of Costs and Underlying Activities

The six primary activity areas managed by the Communications & Research department are:

- Mass Communications

SDG&E proactively communicates to customers and stakeholders via mass and target channels to build awareness of existing and new utility services, programs and resources, customer service offerings, and safety. For example, annually SDG&E communicates via targeted messaging to customers in the high fire risk areas of San Diego to promote safety and outage preparedness. In addition, an annual mass campaign is launched to inform customers about seasonal energy use issues, such as the impact of air conditioner use and changes to baseline allowances, as well as energy safety.

- Website Management

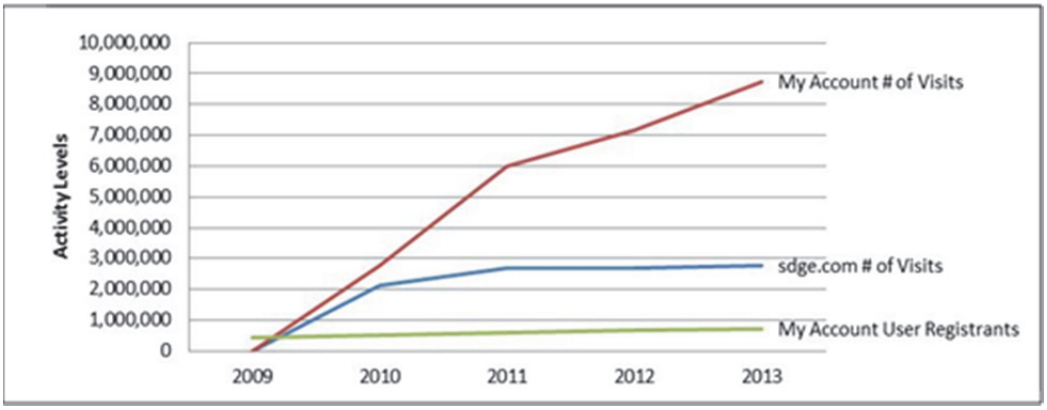
Customer Communications and Research provides oversight and management of sdge.com and the customer facing aspects (graphics and wording) for the My Account website, and promotion of SDG&E's electronic and paperless billing services. Examples of website management activities include:

- daily updates of information on customer service changes and refinements;
- development and posting of new information;
- daily section content updates; and
- development of new sections as informational needs arise.

Figure 2 depicts the activity levels for SDG&E's web channels.

FIGURE 2

2009-2013 Web Channels Activity Levels



Web Channels Activity Levels	2009	2010	2011	2012	2013
sdge.com # of Visits	data not available	4,524,415	5,333,568	5,319,270	5,583,385
My Account # of Visits	data not available	2,767,269	5,990,456	7,174,668	8,751,659
My Account User Registrants (registered users)	434,650	509,419	588,576	665,544	726,545

Note: 2010 data for My Account # of visits contains 6 months of data only.

- Collateral Design and Production

Customer Communications and Research provide oversight of outreach materials (developed internally or via an external agency) that meet the ascribed communication objectives and effectively reach the target audience. These materials are either printed and/or are delivered via the website.

- Customer Research

Customer Communications and Research is responsible for conducting qualitative and quantitative research including quality of performance research on service transactions; using both internal and external resources, to measure, evaluate, and anticipate customer information and service needs and preferences; and supports the development of new customer service

options, targeted communications, and delivery channels to satisfy those needs. Surveys are conducted through telephone interviews, focus groups, and online survey panels.

Beginning in year 2012, SDG&E instituted a new Customer Connections Survey that better reflects the needs of customers and identifies what services and communications the customer values. The findings of the survey are provided to various departments within SDG&E to review customers' perception of SDG&E "performance," and provide indications of how we can adjust our operations to sustain or improve our "performance". The previous CSS survey was in place at SDG&E for 10 years, from 2001 – 2011, and had utilized 11-point "customer satisfaction" numeric scale, a metric used to determine whether SDG&E met a measure of minimum requirements. The customer groups included residential customers who contacted SDG&E through one of the traditional channels: 1) Customer Service Representative ("CSR"); 2) Interactive Voice Response ("IVR"); and 3) the branch office. Examples in which customer satisfaction was measured include:

- Clear Explanation by CSR
- Convenience of Branch Office location
- Service Technician resolved problem to satisfaction

The current Customer Connections Survey, administered by TNS – a global research firm with survey measurement expertise across various sectors, utilizes a 5-point quality of service verbal scale (Excellent, Very Good, Good, Fair, Poor), a metric used to gauge customers' perception of SDG&E "performance," which also expands to include a customer's opinion of value-added service in a transaction, over and above gauging the minimum requirements of service. With this new approach, we developed alignment with currently disparate measurement and reporting tools, are measuring customer interactions not previously included in the former Customer Satisfaction Survey (CSS), are measuring performance, not just satisfaction and offer more actionable information/results, as it:

- is focused on company resources and delivering efficiencies
- better enable focus on being Trusted Energy Advisor, Easy to Do Business With
- is a more consistent customer experience measurement strategy
- measures performance, not just satisfaction
- takes into account the fact that as individuals, customers approach an interaction with us in various emotional states

Reporting has shifted to an online dynamic portal, with daily and real time updates, the ability to filter results, with a focus on targets of Excellent ratings. The Customer Connections Survey allows SDG&E to have better tools for prioritizing improvement initiatives, via this richer connection to customers in measuring their transactional experience. The survey measures the customer experience for: Field, Contact Center, IVR, Web, Authorized Payment Locations, Branch Offices, Project Management & Service Order Teams, Major Markets, My Account and sdge.com. The types of contact channels measured were expanded to include online transactions and additional types of transactions not included in the previous approach, such as Major Markets and Service Order Team.

- Social Media Engagement

Customer Communications and Research engage customers through social media channels to communicate service offerings, outage updates, emergency, and safety messages using a variety of channels – Twitter, Facebook, Pinterest, etc. See Appendix A at the end of my Direct Testimony for a comprehensive list of social media channels.

- Mobile Applications

Customer Communications and Research provide key services through mobile applications development and management across iOS and Android platforms (and ultimately MS Windows mobile). Functionality includes Bill Pay, My Energy, Outage Map, Energy Cost Calculator, Payment Locations, and Report An Outage.

The calculations for the estimated expenses are included in workpapers, Ex. SDG&E-14-1OO010.

b. Forecast Method

In the TY 2012 GRC, a 5-year historical average forecast method was used for Customer Communications, Research & Web. I chose a base year forecast method because there were

new, major communications topics related to rates and energy pricing[65] that had not been included at that scale in previous years, and these efforts will continue in the future as rate reform progresses. Also, there were new technologies introduced, such as texting, a new development platform for the mobile application**,** and a focus on a need for mobile friendly communications which will also continue to shape future communications. Therefore, the base year provides a reasonable starting point for future expenditures.

c. Cost Drivers

Table 39 summarizes the changes in Communications, Research & Web estimated expenses for TY 2016.

TABLE 39

Changes in Communications, Research &Web TY 2016 Estimated Expenses

Communications, Research, & Web	TY 2016 - 2013 Change ($000)			
	Labor	Non-Labor	Total	FTEs
Customer Research Activities – surveys		$1,842	$1,842	
Customer Research Activities – labor	$379		$379	4.0
Social Media Tools		$90	$90	
Social Media Advisor	$85		$85	1.0
Mobile Application Capabilities		$50	$50	
My Account Content Management System	$100		$100	1.0
SPP Event Notifications and Goals and Alerts		$376	$376	
Ongoing SPP activities	$255		$255	3.0
New Rate Options and Programs		$2,870	$2,870	
Enhanced Customer Educations While on Customer Premises		$19	$19	
Customer Outreach Safety Checks		$281	$281	
Total TY 2016 Impact	**$819**	**$5,528**	**$6,347**	**9.0**

[65] Customers were made aware of a number of rate increases that occurred in 2013-2014, along with explanations of the drivers of each increase. Those increases included 1) SDG&E's 2012 GRC rate increase effective September 1, 2013; 2) SDG&E's 2013 ERRA forecast revenue requirement increase effective December 1, 2013; 3) the triggering of SDG&E's ERRA balancing account which caused another rate increase on April 1, 2014; and 4) the CPUC's final decision in SDG&E's 2012 GRC Phase 2 application, which changed rates effective May 1, 2014. SDG&E also provided those affected customers with solutions and tips to assist them in reducing their energy usage and therefore reducing the effects of the rate increases. Finally, SDG&E communicated the status of Assembly Bill ("AB") 327, the rate reform bill, as it made its way through the State legislature and became law following Governor Brown's signature in October 2013.

i. Customer Research Activities

I am requesting $1,842,000 in non-labor above the 2013 base year for ongoing customer research activities. There are four distinct studies called out in the request (See Table 40) each of which fulfills a particular need to help provide improved customer service.

TABLE 40

Customer Surveys

Survey[66]	2014	2015	TY2016
New Segmentation Survey	$ 275,000		$ 91,677
Refresh Voice of Customer Survey	$ 150,000		$ 100,000
New Competitive Survey	$ 150,000	$ 150,000	$ 150,000
Enhanced Customer Connections Survey	$ 1,500,000	$ 1,500,000	$ 1,500,000
Total	**$ 2,075,000**	**$ 1,650,000**	**$ 1,841,677**

I am also requesting $379,000 in labor above the 2013 base year for four research analysts to routinely conduct customer surveys and measure results to understand drivers for customer decisions and make changes to better serve our customers. See Table 41 below for FTE requirements by survey.

TABLE 41

FTE Requirements by Survey

Survey	FTEs
New Segmentation Survey	2 (Research Analyst & Sr. Research Data Analyst)
Refresh Voice of Customer & New Competitive Survey	1 (Sr. Research Analyst)
Enhanced Customer Connections Survey	1 (Research Analyst)
Total	4

[66] The New Segmentation Survey is performed once every three years therefore one-third of the cost is included in TY 2016. The Refresh Voice of Customer is performed every other year therefore two-thirds of the cost is included in TY 2016. The New Competitive Survey and Enhanced Customer Connections Surveys are performed annually therefore the full cost is reflected in TY 2016. Calculations assume a three year GRC cycle (2016-2018).

The following testimony provides a more detailed description of the surveys and employee activities.

- Enhanced Customer Connections Survey

The majority of the non-labor funding ($1.5 million) is being requested to expand the current Customer Connections Survey used to measure transactions customers have with SDG&E. This expansion will allow for more frequent studies and expand the number of questions asked and the analysis of the findings. The overriding objectives of the research studies are to:

- Conduct a comprehensive review of current services offerings
- Measure awareness, usage, and perceived value of current offerings
- Test viability of new services (online self-service, smartphone applications, etc.)
- Understand how SDG&E customers interact and communicate with the company
- Gain understanding of alternative services and offerings customers would be interested in receiving from SDG&E

From the enhanced study there will be better understanding of customer needs and how SDG&E can work to provide better service. An additional research analyst will be required to conduct the Customer Connections Survey enhancement. This will include measuring customer experience with the various current Customer Programs and Customer Assistance transactions offerings, as well as new service/transactions. The survey currently excludes critical parts of company transactions, notably those of Customer Programs and Assistance. This will enable the company to monitor service experiences on an ongoing and regular basis to better understand our customers' needs. This individual will work on launching and maintaining this portion of the study, and supporting internal clients with identifying improvements necessary to increase customer experience ratings. Without this position, adding additional transaction types will not be possible with the current workload.

- New Segmentation Survey

Customer segmentation surveys are a critical step in supporting strategic objectives in being able to respond to industry challenges, as it provides an in-depth view of customers. Customer segmentation allows the company to offer solutions to customers that are more meaningful, useful, and fitting for customers. Customers cannot be offered tailored solutions without some form of segmentation. The current segmentation schema is dated and is in need of

being refreshed to stay attuned to changing customer expectations, needs, and behaviors. The new segmentation study would be conducted to ensure we have proper and up-to-date segmentation, allowing SDG&E to offer services according to demographically and socio-economically distinct and meaningful attitudinal segments. This segmentation will allow insight into:

- Identifying hard to reach/niche segments that have limited/specialized needs.
- Determining the barriers to acceptance and how these barriers can be overcome.
- Providing insight on the new tools and technology solutions that will be available to help customers succeed with the new options.

The CPUC's Policy and Planning Division understands the importance of customer segmentation and suggests customer segmentation data be used to refine customer program participation and technology adoption/deployment forecasts, target programs to early adopters first, then high users of energy, and to design multiple education and outreach messages to fit multiple segments.[67]

Two of the research analysts will be responsible for conducting new customer segmentation surveys in addition to gathering insights on newly created segments across other research studies as appropriate. Further, the research analysts will also be responsible for completing manual customer database scoring with new algorithms. These individuals will launch a newly formed segmentation survey across various customer classes, using appropriate quantitative techniques and analysis. This requires a large volume of work launching the survey, managing the process and vendors, collaborating with various internal teams, and applying the proper statistical analysis. Advanced statistical and data manipulation and analysis skills will be applied throughout the process in order to develop the segmentation schema. Ongoing synthesis of customer opinions, satisfaction, perceptions of company and services, with an eye toward new products and service and segments will be a key focus in the following years, as well as updating of the insights and use of the algorithm in continual understanding of our customers.

The work conducted here will be used by other areas in the company, including the staff within Residential Customer Services (see section II.B.1.c.iii of my testimony). The segmentation modeling produced here will be used to conduct analysis of various customer segments to aid in providing services to customers.

[67] Customers as Grid Participants: A Fundamentally New Role for Customers, May 15, 2013.

- Refresh Voice of the Customer Survey & New Competitive Survey

The Voice of the Customer Survey is critical for SDG&E to service its customers in the future, as this type of study measures interest in current and proposed new products/services. This will provide ongoing measurement and prioritize actions that drive improvements to provide better service to customers in addition to evaluating any gap between those attributes that customers desire in an "ideal" energy company and SDG&E's current performance on those attributes. Among the areas to be explored include:

- How do customers differ from each other in terms of attitudes, behaviors, and motivation surrounding a new offer or method?
- What are the preferred methods of communication for an offering? How can we inform them using their preferred channels?
- How do we reach hard to reach segments?
- What will be the barriers to acceptance, and how do we overcome them?
- Will customers be willing to adopt and use the emerging technology or offer?
- What is the magnitude of customer need for a product or service?
- How will the offer impact the customer's overall perceptions of the company as an energy service provider?

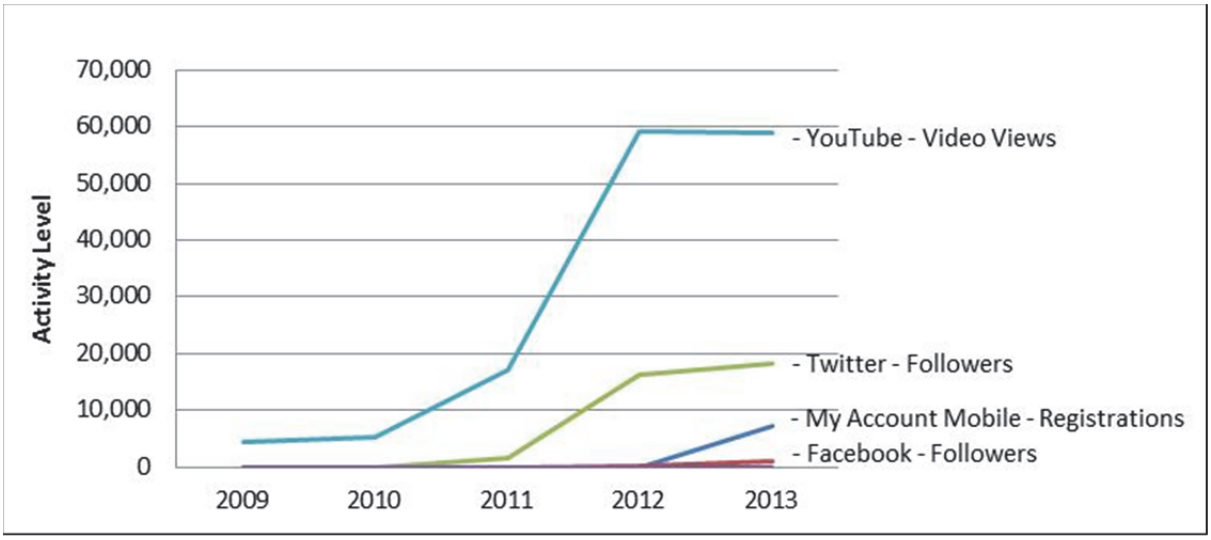
One additional analyst will be responsible for conducting refreshed Voice of the Customer Survey by new segments. Bringing on this individual will allow us to quantitatively conduct a comprehensive review of services offerings from a customer viewpoint, measure awareness, usage, and perceived value of current offerings, and test viability of new services. It also enhances understanding around being a partner to customers, measures and prioritizes actions that drive SDG&E as a partner to customers. It evaluates any gap between those attributes that customers expect and SDG&E's current performance on those attributes. This individual will also conduct new Competitive Survey Assessment(s) (i.e. NEM) to better understand drivers for customer decisions toward alternatives, and opinions toward alternative solutions. The value to the customer of the body of work will be a better overall experience and having new services developed and delivered based on customer expectations. Without this insight, there will be missed opportunities for improvement of service to customers, as well as delays in making improvements and tracking effectiveness of current offerings. In addition, SDG&E runs the risk of falling short of meeting basic service expectations of customers.

ii. Social Media Tools

I am requesting $90,000 in non-labor above the 2013 base year for additional licensing and social media analytics tools. In the past three years social media activity at SDG&E has grown dramatically as shown in Figure 3.

FIGURE 3

Social Media Activity Levels



Social Media Activity	1/1/09	1/1/10	1/1/11	1/1/12	1/1/13
My Account Mobile - Registrations	n/a	n/a	n/a	n/a	7,207
Facebook - Followers	n/a	n/a	n/a	124	1,017
Twitter - Followers	n/a	n/a	1,574	16,395	18,214
YouTube - Video Views	4,369	5,304	17,089	59,068	58,907

Twitter has been the primary social media channel at SDG&E with an industry leading number of followers (20,244 as of March 2014). SDG&E also uses Facebook, LinkedIn, Google+, Instagram, and Pinterest. In 2013, the CCC began a pilot to use Twitter for communicating with customers, which is being gradually expanded.

A key attribute of social media is that it provides the opportunity to communicate with our customers during crisis situations by delivering timely and important messages that address safety related situation when other communication channels are unavailable. On September 8, 2011 there was a system wide energy blackout in San Diego. Within the first 15 minutes, SDG&E posted its first tweet about the situation and within 24 hours had posted over 100 tweets

with updates and emergency information. On this day, SDG&E went from 1,688 Twitter followers to 17,600 followers. The various media outlets used the information posted on SDG&E's Twitter account to provide updates reaching additional people. Following the event, people continued to follow SDG&E on Twitter and the account now sees daily activity with questions from customers regarding various aspects of their service that SDG&E is able to address through this new communications channel.

Building out the analytic capabilities of currently installed tools, such as Cision, Google Analytics and Clickfox is essential to meeting customers' expectations of receiving answers to questions about outages, high bills, service orders, and other gas and electric issues. Cision is a recognized social media measurement tool used by a wide range of industries, which tracks activity and provides insight into trends. Google Analytics provides primarily website metrics, but can also tie into email. Clickfox provides metrics on a range of customer online behaviors and can integrate website, calls and IVR activity. Funding will be used to integrate the metrics provided by these tools to help guide future development of social media activity and monitoring of daily activity. Current funding allows for limited use of these tools, as an example we only have three months of data from Cision, the primary social media tool, rather than a full 12 months. Approximately half the funding will be used for additional licensing of the tools providing greater insights and information. The remainder of the funding will be used for a consultant to aid in the building out and ongoing maintenance of the social media tools' capabilities. The initial build will integrate the tools into our social media channels and websites. The ongoing support will ensure the tools are functioning properly, deal with version upgrades and new features the tools offer. It will also ensure the tools are properly connected to the SDG&E websites, which have content and feature updates consistently throughout the year. This ongoing maintenance is needed to ensure the tools provide up-to-date and useful information. The value to customers is that with better insight into web and online activity we can better update and tailor the service to provide better customer service.

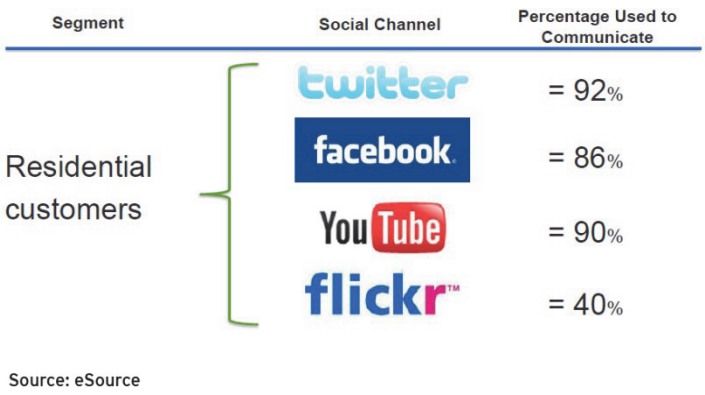
iii. Social Media Advisor

I am requesting $85,000 in labor above the 2013 base year for a Social Media Advisor to assist SDG&E in using social media channels and tools to engage with customers and stakeholders on behalf of SDG&E. As can be seen from Figure 4 below, more and more

customers interact with utilities via social media which makes customer service via social media or 'social customer service' a key part of SDG&E's customer service.

FIGURE 4

Residential Customers Using Social Media Channels



Source: eSource

The Social Media Advisor will focus on providing customer service content via SDG&E's social channels, including Twitter, Facebook, LinkedIn, Google+, etc. by performing the following activities:

- Measurement - Lead efforts to devise a system of measurements and key metrics to understand program results in terms of social media penetration, impact of social media reputation and perceptions, and the ability to solve customer service issues. Define program metrics in a manner that provides the ability to measure and report on impact of social media investments. Monitor benchmarks for measuring the impact of social media programs, and analyze, review, and report on effectiveness of campaigns to maximize results.
- Reporting - With our strong focus on measureable results, this position will translate measurement data and social media monitoring insights into compelling, understandable, actionable opportunities for the social media team and company leadership. The position will also identify best practices for social media to implement to ensure the company is achieving best results from its social media programs. Serve as an internal advocate for customers.
- Relationship Building - Drive the strategy behind company-wide social media initiatives and programs, and collaborate with departments across the company (such as customer

service, media relations, IT, legal) to support their business goals through social media best practices in content sourcing, community engagement, regulations and compliance, technical infrastructure and approach, etc.

- Engagement - Build and manage relationships with online opinion leaders and SDG&E employees to create an active brand ambassador network to generate conversations and provide customer service. Develop and implement best practices for online engagement that addresses personalized issues customers are having and provide value to customers and stakeholders.

Given customers' increased use of social media, this position will add value towards improving customer service.

iv. Mobile Application Capabilities

I am requesting $50,000 in non-labor to maintain and enhance SDG&E's mobile application ("app") to offer more capabilities to connect with our customers on the device of their choice. Future enhancements include but are not limited to providing rate enrollment options, enabling energy goals and alerts, and service order management.

Today, SDG&E provides a mobile app for both iOS and Android users. Our current app offers the following features: bill pay, view energy usage, outage map and reporting options, cost calculator, payment locations, and quick links to our social media channels (Twitter, Facebook, and Videos). Since our initial release in late 2012, we have experienced a steady upward trend in mobile app adoption resulting in over 70,000 downloads to date. In addition, there were 60,000 screen views in the month of May 2014. In 2013, more than 289,000 mobile payments were made by customers. These metrics along with a growing smartphone population help to validate the increasing customer interest in our mobile app.

SDG&E leverages customer research efforts, internal leadership direction and regulatory requirements to drive the SDG&E mobile strategy. Partnering with a third party vendor we successfully redesigned and launched our new mobile app in 2013, which added a new look and feel, increased functionality, and provided a more responsive and scalable framework. Shortly after this release, SDG&E was ranked in the top 3 among 50 different utilities for its mobile

app.[68] SDG&E has also received positive customer feedback and recognition in response to these enhancements.

PICTURE 1

As a result of our increased mobile focus, we expect that mobile downloads will continue to rise along with increased self-service activity. Ultimately, our goal is to create a seamless online user experience while utilizing this mobile channel to increase self-service options by delivering useful and relevant information to our customers. SDG&E views the mobile app as a critical component for connecting with our customers and this funding request is needed to make continuous improvements and offer new features.[69] Picture 1 provides a snapshot of SDG&E's current mobile app.

v. My Account Content Management System

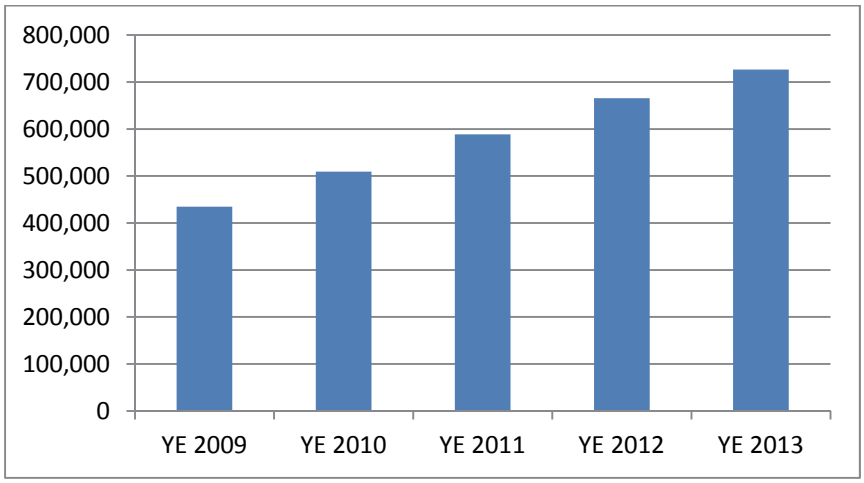
I am requesting $100,000 in labor above the 2013 base year to provide ongoing management of the content contained within SDG&E's My Account website. My Account underwent a significant redevelopment and redesign in late 2013 and early 2014. Part of this redevelopment was building the site using a content management system to enable more rapid deployment and updating of content. The incremental position will be responsible for writing or assisting in the writing of content, ensuring consistency of messaging and providing guidance on improving the customer experience through better content management. The need for a FTE has grown as more customers choose online services. As can be seen from Table 42 below, as of year-end December 2013, 726,545 customer accounts were enrolled in My Account compared to 434,650 customers as of year-end December 2009.

[68] http://www.broadwayworld.com/bwwgeeks/article/Benchmark-Reveals-Top-50-US-Utilities-Leveraging-Social-Media-and-Mobile-Apps-To-Improve-Smart-Grid-Benefits-20140407#mQ4OYmJZfz0gph7b.99.

[69] The following Pew Internet Project survey found that 55 percent of all adult cell phone owners in the United States use their mobile phones for online activity and that 17 percent use their phone for most of their online browsing.
http://www.pewinternet.org/~/media//Files/Reports/2012/PIP_Cell_Phone_Internet_Access.pdf.

TABLE 42

Number of Registered My Account Customer Accounts



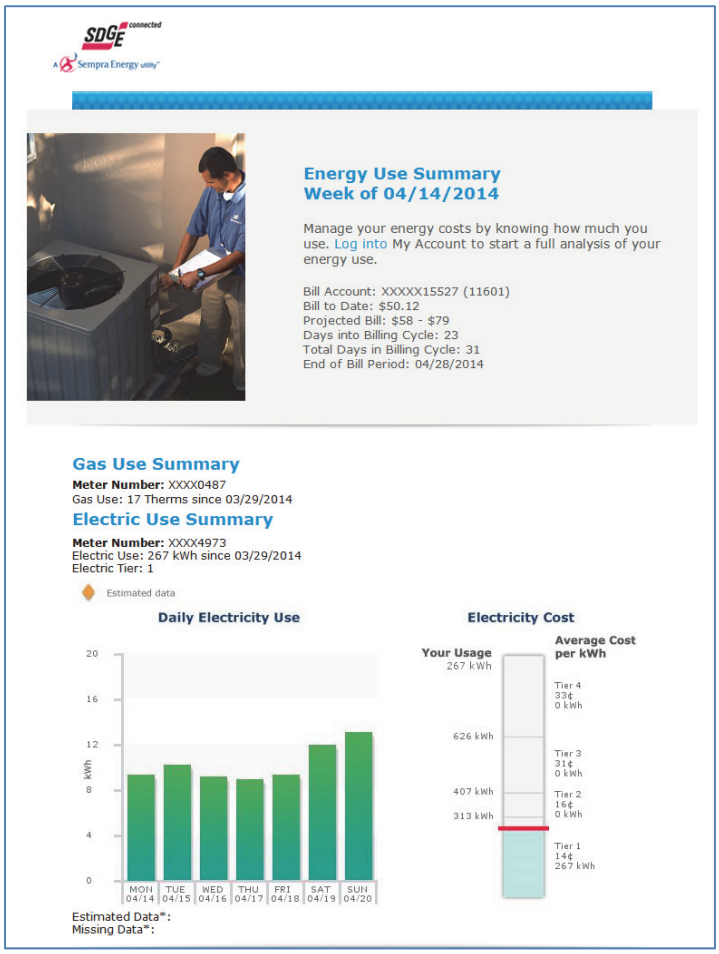
The number of users continues to grow. As a result, it's no longer feasible to manage the My Account website with existing employees. Without this position, SDG&E will not be able to meet its customers' expectations with regard to the availability and accuracy of information available online.

vi. SPP Event Notifications and Goals and Alerts

I am requesting $376,000 in non-labor above the 2013 base year to distribute to customers event notifications and alerts (tier crossing notification, spending threshold alert, consumption alert, and weekly energy use summary) via email and text for the new SPP rates.[70] As part of the SPP, new energy use alerts were created for the purpose of providing energy management solutions to customers and increasing energy engagement in preparation for the new SPP rates.[71] These energy use alerts include notifying customers of event days, of reaching a pre-set spending threshold, of reaching pre-set energy use threshold, of crossing electric tiers, and a weekly energy use summary capturing energy use patterns, current estimated bill, and forecasted bill. Picture 2 below provides an example of the weekly energy use summary provided to customers.

[70] See supplemental workpaper 1 attached to Ex. SDG&E-14-WP 1OO010 for the detailed calculation of the non-labor costs including expected customer enrollments.
[71] See section II.A.3.c.ii of my testimony regarding the implementation of SPP.

PICTURE 2



These alerts are important for the success of customers on SPP rates. These energy use alerts will continue to provide customer value after the completion of the SPP which is funded through 2015. By the end of 2015 these alerts will have become a normal course of business and critical to the success of obtaining load reduction for these rates. While the cost of building and promoting these energy use alerts has been funded through the SPP, there are ongoing transactional costs for sending the alerts through email and/or text that will continue past 2015. In order to continue offering these energy use alerts to customers, I am requesting funding to include the transactional costs of sending out these alerts. If funding is not received, these alerts can no longer be offered to customers resulting in a reduction of information services to SDG&E's customers.

vii. Ongoing SPP activities

I am requesting $255,000 in labor above the 2013 base year for 3.0 FTEs including a Senior Communications Advisor, Senior Research Analyst and Web Business Technologist. These employees are currently funded through the SPP and will transition to O&M in TY 2016. These positions will be responsible for ongoing communications, web and research support needed to serve customers on SPP as well as other new rate options, such as rate reform. The functions these positions provide include:

- Development, implementation, and coordination of communications to customers
- Implementation and coordination of customer research
- Testing and coordination of customer facing aspects of the online tools and webpages

With the major development and implementation of the SPP completed, there will be an ongoing need for these positions to continue to support SPP as new customers elect to go on these rates and as new rates options become available. As rate options and changes evolve customers will continue to need information and education on maximizing the effectiveness being on the SPP rates as well as managing the overall energy use. Also, as new customers come into the area, there will be a need to inform them about their rate options and the best ways to maximize energy savings and demand reduction while on various rate offerings. As reported by J.D. Power and Associates, utilities not only need to increase the number of customers who participate in alternate pricing plans, but also get them engaged in saving energy by being more aware of their energy usage and modifying their usage behaviors.[72]

The Communications Advisor position will provide day-to-day support and implementation of communications reaching both customers already on these rates as well as new customers selecting these rates. These communications activities include writing mass emails and direct mail letters, monitoring the communications of various goals and alerts, and promotional communications encouraging residential or business customers to select a rate.

The Senior Research Analyst will continue to coordinate customer research studies to aid in the refinement of the rates and help make improvements to related services offered to residential and business customers. This research is needed to ensure that the services and rates continue to provide a satisfactory customer experience and provide insight into emerging trends

[72] J.D. Powers and Associates Customer Impact Report: New Pricing Plans and Options, February 2013.

and needs of customers. This position will work with research suppliers to conduct and field the research, analyze the data, and report the findings.

The Web Business Technologist will provide day-to-day support of the web pages including front end support of the functionality required to offer time variant rates. This activity will include testing of functionality, interfacing with IT, and the other communications staff on revisions and additions to the website and working on the technical aspects of emails.

With the funding for these positions ending in 2015, if this request is not approved there will not be staff available to support the ongoing work required to understand customer needs, improve the customer experience related to rate offerings, or assist with the adoption process of rate sign up and retention.

viii. New Rate Options and Programs

I am requesting $2,870,000 in non-labor above the 2013 base year to educate customers about new rate options. The years of 2015 to 2018 will be a time of tremendous change with new opportunities for customers as rate reform is implemented, new rate options become available and the structure underlying rate changes to be based on time variant pricing. Based on these changes and new options, customers will have an increased level of involvement with their energy use and the management of their energy use. To assist customers with this process, SDG&E proposes to increase communications to customers using a wide range of available channels to offer relevant and meaningful information that will make this time an easier and more beneficial transition for customers. As stated previously in section II.A.8.c.iv of my testimony, the CPUC clearly wants to ensure the utilities prepare customers for rate reform. Ordering Paragraph 4 of D.14-06-029 in the rate reform proceeding (R.12-06-013) states, "Transitions to new rate structures should emphasize customer education and outreach that enhances customer understanding and acceptance of new rates, and minimizes and appropriately considers the bill impacts associated with such transitions." Furthermore, based on the questions set forth in the February 13, 2014 Assigned Commissioner's Ruling in R.12-06-013, the CPUC clearly wants to ensure the utilities prepare customers for the upcoming rate changes.

SDG&E will use an integrated mix of mass media, direct mail, email, online, social media, and in the bill package to build awareness and understanding as well as to offer various services as needed. As shown in Table 43, the estimated costs beginning in 2015 are as follows:

TABLE 43

Costs to Educate Customers on New Rate Options and Programs

Mass Media	Online	Direct Mail	Email	Bill Inserts	Research
$2,110,000	$280,000	$175,000	$25,000	$105,000	$175,000

Customer research will be used to measure effectiveness and refine messaging specific to the communications activity requested on this topic of rate reform. Based on the complexity and evolving nature of the messaging that will be needed to create a positive experience for customers and the resulting behavior changes that are needed for them to understand that it matters what time of the day they use energy, we believe the amount requested is necessary and appropriate.

Messages during this time will evolve and progress from preparing people for the coming changes and explaining the details of these changes, to explaining the reasons and benefits to customers of time variant rates, and ultimately when to expect the changes to affect their bills.

The audiences for these messages include all residential customers, which covers a broad spectrum of demographics and segments of customers. This includes multicultural, non-English speaking, low income, high energy users, as well as hard to reach customers.

The strategy for communications is to build on previous communications efforts SDG&E undertook in the 2013 and 2014 timeframe alerting customers to the initial stages of rate changes and rate reform. To maximize customer understanding and message retention, ongoing communications will be coordinated with SPP communications and the statewide efforts of Energy Upgrade California. Given that customers receive their energy bills from SDG&E it is important for customer understanding and convenience that SDG&E be the sender of these messages and provide them with continuity of energy billing and customer service related to the implementation of rate reform.

The strategy for the delivery of these messages will be to coordinate with outreach efforts, and, as mentioned above, use a combination of mass media and direct communications to achieve greatest impact. While direct communications channels are becoming more efficient, there is still a need for foundational mass communications, which can provide cost-efficient delivery of messages to various audiences in a consistent, concise, and high visibility manner. Direct channels allow delivery of specific, targeted messages to individuals or customer segments.

Mass media will provide broad awareness and education about rate reform, time-of-use, and energy behavior-related messages to provide a solid base of understanding. Mass media communications will run for three to four months and will include use of TV, radio, newspapers, in both English and the dominate languages in the region – Spanish, Vietnamese, Chinese, Korean and Filipino. To increase relevancy of messages, we will also place communications in African American media.

Direct channels will include a combination of direct mail, email, and targeted online advertising, plus in-bill communications. These messages will be run in coordination with the mass efforts and target identified segments for individuals with messages that include specific, more customized information related to their specific energy use as well as personalized energy management solutions. Communications using targeted email and direct mail offers has already begun with the SPP, offering billing and energy use goals and alerts, then will progress to offering detailed enrollment offers.

In-bill communications is a strong channel to use when informing customers of rate-related information since the bill is when customers are often most engaged with their energy costs and usage. The tactics for this channel include messages on the bill, special newsletters, and separate bill inserts.

To support the mass media and direct channel communications, the SDG&E website will be used as the call to action offering a range of information and details in easy to understand formats like videos and infographics. Customers can drill down for more detailed information as needed. All social media and mobile channels will be used to communicate messages of interest that will link customers to content on the website such as videos, infographics, solutions, and tools to help customers manage their energy use and make wise energy choices.

ix. Enhanced Customer Education While On Customer Premises

I am requesting $19,000 in non-labor above the 2013 base year to prepare carbon monoxide detector collateral for customers and to inform customers about sdge.com. The collateral will be left with customers by Customer Service Field operations. The details regarding these activities can be found in the Direct Testimony of Sara Franke (Ex. SDG&E-13).

x. Customer Outreach Safety Checks

I am requesting $281,000 in non-labor above the 2013 base year to prepare and mail postcards to customers containing information about safety checks on gas appliances. As set

forth in the Direct Testimony of Sara Franke (Ex. SDG&E-13), SDG&E proposes to mail postcards to customers offering to have a field technician come out to the customer's premise to perform a safety check on all of the customer's gas appliances. The non-labor reflects the cost to design, write, and print along with postage for the postcards ($0.56 per mailing).[73]

4. Customer Programs & Projects

Table 44 below summarizes SDG&E's requested TY 2016 expenses for Customer Programs & Projects.

TABLE 44

Forecast for Customer Programs & Projects

CS - OPERATIONS, INFORMATION & TECHNOLOGIES			
Shown in Thousands of 2013 Dollars			
B. Customer Service Information	**2013 Adjusted-Recorded**	**TY2016 Estimated**	**Change**
4. Customer Programs & Projects	$2,721	$3,443	$722

a. Description of Costs and Underlying Activities

In April 2011 Customer Programs changed their name to Customer Programs and Projects ("CP&P") and added three new groups to the organization as described below. CP&P is primarily responsible for administering the Demand Response Reliability Programs as mandated by the CPUC and have been approved for collection through rates. In addition, CP&P acquires customer information for data bases, demographics, and cost studies, provides analytical and technical support for various regulatory filings, and sponsors events within the new construction industry to encourage safe, efficient, and economical use of the utility's service.

The three additional groups added to CP&P include an Office of Customer Privacy, a Project Management Office (or "Customer Services PMO"), and a Business Integration group. The additional groups described below support the growing needs of our customers. The launching of the activities of the Customer Services PMO and the Business Integration group were the result of a reorganization which staffs the business units so that Customer Services across the board would have the right level of support in all of their Information Technology

[73] The costs associated with responding to customer inquiries and scheduling appointments can be found in CCC Operations, section II.A.8 of my testimony.

("IT") endeavors from strategy, to concept, to completed project. The result has been a clear view of the "as is" and "to be" state of the business and IT architecture for Customer Services, the capabilities of the business units which have been prioritized, a skilled team of project managers to staff each project for the business, and, finally, a clean process for ensuring business integration with IT projects. The Office of Customer Privacy was formed in order to properly align departments that process customer information with the company's customer privacy goals and objectives as well as to meet privacy-related regulatory mandates.

- Office of Customer Privacy

The strategy of the company is to develop its capabilities (including people, processes, and technologies) to safeguard and advocate for customer privacy while meeting all mandated privacy requirements, with an overall goal of operating a streamlined organization which focuses on automation of key privacy tasks. As a result, the Office of Customer Privacy within CP&P was founded in order to properly align departments that process customer information with its customer privacy goals and objectives.

SDG&E designated the Vice President of Customer Services to be SDG&E's Chief Customer Privacy Officer, whose role is accountable for customer privacy across the organization, to set policy, and provide resources for achieving enterprise privacy goals and objectives. The CP&P Director was assigned the role of the Director of Customer Privacy and provides oversight for the implementation of the Company's privacy policy. A manager of the Office of Customer Privacy was assigned and charged to manage the day-to-day responsibilities of maintaining the company's privacy program, its strategies, compliance activities and adherence to best practices. The Office of Customer Privacy also coordinates closely with our Information Security department to obtain security requirements for projects and processes handling customer information, and during security incidents and breaches involving customer information.

The Office of Customer Privacy has built and implemented a formal customer privacy program, including:

- The establishment of a privacy framework that would meet our Federal and State privacy obligations as well as industry-accepted best practices (the Generally

Accepted Privacy Principles, or GAPP), while simultaneously incorporating Privacy by Design ("PbD") principles[74].

- A Privacy Impact Assessment process and tools, to help employees describe the risk their projects, programs, and processes have on customer privacy and provide options to help mitigate that risk.
- A set of privacy controls to help the business reduce and manage its privacy risk.
- Privacy GreenLight, a formal process for sharing customer data with authorized third parties which includes: analysis of the request to determine level of sensitivity of the data and explore opportunity to minimize the amount of data shared; thorough review of the third party's privacy and security practices to minimize breaches or unintended disclosures of information; assessment to evaluate risk when sharing the information with the third party; drafting of non-disclosure agreement where applicable; and secure transmission of data to the third party once all reviews and approvals are met.
- The delivery of ongoing privacy training to all active employees with computers and similar training to field personnel.
- Collaboration with external privacy regulators and key stakeholders to advocate for the importance of protecting our customer's energy privacy. SDG&E is working to develop a reputation for being strong privacy advocates in order to foster a stronger relationship with its customers, especially in maintaining their trust.

- <u>The Customer Services Project Management Office ("CS PMO")</u>

The mission of the CS PMO is to develop and maintain the Program Governance Plan and the Program Charter which ensures alignment of projects and initiatives to the Strategic Plan across the Customer Services organization. The PMO oversees the delivery of major Customer Services' projects and initiatives.

In 2013, the PMO was established and staffed to meet its mission. The PMO established procedures to track and manage projects and to deliver business status reports on major products across stakeholder groups. The PMO monitors all major projects (20 on average yearly), and provides project managers to staff those projects for a centralized operation with insight into all projects across the organization for optimization of resources and alignment to strategies. The

[74] PbD presents a set of foundational principles to act as a roadmap to integrate privacy considerations into business models, product development cycles, and new technologies: http://www.privacybydesign.ca

PMO established monthly Change Control Review Board (CCRB) meetings for Directors' review and approval of project scope, schedule or budget updates. The group leads capital project budget planning for Customer Services and coordination across business areas for project planning (preparation of project concepts, definition of criteria/metrics, and review of projects, project prioritization and optimization). The CS PMO has effectively teamed with the IT PMO to avoid duplication of effort and help define points of demarcation between the various Customer Services and IT Project Managers. By instituting these changes, projects within Customer Services are better able meet their requirements on time and budget.

- Home Area Network ("HAN")

The HAN team leads the planning and implementation of HAN activities for the utility; including program planning and implementation, customer service related to HAN devices, current in-house HAN device testing and validation, and interfacing with all program groups for HAN integration into customer programs. In addition, the HAN team will support the implementation and ongoing support of the Demand Response Management System ("DRMS"), which is an enterprise software solution that will manage the growing portfolio of Demand Response at SDG&E, including traditional programs, technology deployments and rate programs.[75] The HAN team also leads the implementation of the small and medium business thermostat deployment.[76] SDG&E is currently offering demand response enabled programmable communicating thermostats to qualified business customers for demand response. Business customers who are on a Critical Peak Pricing rate will be able to optimize the benefits of the rate by participating in Auto Demand Response (the customer doesn't need to do anything, during the event a signal is sent to their Energy Management System or thermostat to reduce load). These thermostats also assist the customers in achieving energy efficiency benefits with their remote control capability, easy programming, and lock-out features.

- Business Integration Group

The Business Integration group is a staff of skilled business system analysts responsible for working with stakeholders across the Customer Services organization to gather and document business requirements for new projects, and to represent the business during later project phases. They ensure that a project's requirements truly reflect the business unit's needs. During project

[75] DRMS will be the system for all demand response management. See Direct Testimony of Stephen Mikovits (Ex. SDG&E-19), workpaper 10875O.
[76] These activities are funded through SDG&E's Advanced Metering Infrastructure Balancing Account.

implementation, the analysts may assist in IT testing as well as change management to adapt business processes in the rollouts of new systems or system changes. Additionally, the Business Integration team is responsible for the implementation of our Green Button data sharing program. Specifically, they work with our third party partners on Green Button Connect My Data on their system requirements, and a smooth connection between the third party, customer and utility, and trouble shoot any problems. The work of this group ensures that projects start with the business priorities and end the project with a smooth integration of any new systems or upgrades.

The calculations for the estimated expenses are included in workpapers, Ex. SDG&E-14-WP 1OO011.

b. Forecast Method

In the TY 2012 GRC, a base year forecast method was used for CP&P. I also chose a base year forecast method because during 2012 and 2013 the group expanded to include new activities requiring additional resources to support those activities. These new activities included managing the Office of Customer Privacy in support of SDG&E's privacy goals and objectives; overseeing the delivery of major Customer Services projects and initiatives; and business integration of technology including HAN support. Furthermore, the group took on new activities such as conducting a third party privacy audit. Therefore, the base year provides a reasonable starting point for future expenditures.

c. Cost Drivers

Table 45 summarizes the changes in Customer Programs & Projects estimated expenses for TY 2016.

TABLE 45

Changes in Customer Programs & Projects TY 2016 Estimated Expenses

Customer Programs & Projects	TY 2016 - 2013 Change ($000)				
	Labor	Non-Labor	NSE	Total	FTEs
Ongoing SPP and CPP-D Activities	$199	$82		$281	2.2
Customer Privacy Office	$170			$170	2.0
Privacy Audit		$133		$133	
Other – program office	$133			$133	1.0
Other – software maintenance agreement			$5	$5	
Total TY 2016 Impact	**$502**	**$215**	**$5**	**$722**	**5.2**

i. Ongoing SPP and CPP-D Activities

I am requesting $199,000 in labor and $82,000 in non-labor for employee related expenses above the 2013 base year to support new SPP rates and CPP-D for medium business customers.[77] The positions include a full-time Program Assistant, full-time Program Advisor and 20% of a Program Manager to support customer participation in new rate options and programs. These positions were previously funded through the SPP and are being transitioned to O&M beginning in TY 2016 to provide ongoing program support.

SPP and CPP-D, like SDG&E's other demand response programs, will require an ongoing Program Assistant and Program Advisor to perform the following activities:

- Analytics and Quality Control – Keep systems (DRMS, kWickview[78] and the Customer Information System[79]) updated and consistent with each other regarding the customer information.
- Stakeholder Coordination – Coordinate with Technical Project Management and Billing to address system issues, identify system enhancements, and resolve system defects. System issues and changes are identified by running and reviewing reports on a daily basis to ensure accurate and timely updates are made.
- Customer Service Focused – Work with other departments (e.g. C&I, Billing, CCC, Smart Meter Data Operations) to address customer issues or concerns that may surface regarding program operations. For example, a customer may contact their Account Executive if they have a question about the information contained in kWickview, or a customer may contact the CCC regarding program enrollment. CP&P must have staff available to promptly assist other organizations with customer inquiries that cannot be addressed by the initial customer contact point.
- Demand Response Program and Event Management – Monitor weather forecast and system load to determine if the program triggers are met. Work collaboratively with stakeholders, such as Grid Operations, Procurement, and CAISO to determine the need to call the program based on system operational conditions, procurement requirements, CAISO

[77] See sections II.A.3.c.ii and V.C.3 of my testimony for a detailed description of SPP and CPP-D, respectively.
[78] kWickview is an online tool available to medium and large C&I customers to help them track and manage their energy use.
[79] SDG&E's mainframe billing system, which contains the system record of customer information.

emergency situations, and program design criteria. Once it has been determined a program will be called, CP&P is responsible for initiating the customer notifications through SDG&E's Customer Information Systems, DRMS, kWickview, or the Enterprise Notification System depending on which communication method the customer selected. According to various reporting requirements, CP&P records the event triggers, decisions, timelines, and its communications with stakeholders using DRMS and CAISO reporting and event tracking templates.

- Respond to Internal and External requests - Provide program progress and data to the CPUC and internal stakeholders in requested formats, comment and/or implement suggestions from the CPUC staff, and present program progress to interested groups/parties as requested. Support regulatory filing when requesting program design changes.
- Outreach and Budget Management - Work collaboratively to ensure collateral and customer facing tools are current, contain accurate information, and are accessible by the eligible customers. Team up with the Account Executives and participate in the outreach efforts before and during the demand response season. Work with load research and the Evaluation, Measurement and Verification team to communicate and collaboratively work toward better performance. Manage the labor budget and expenditure tracking.

As described above, the Program Advisor and the Program Specialist need to work as a team to provide inputs to the databases, ensure consistent customer information among the databases and tools, provide event notifications, fulfill the CPUC's and CAISO's reporting requirements, and work with customers to maintain high levels of customer experience, this is particularly important given the volume of new customers eligible for the new rates. CP&P maintains a Demand Response Program email box to facilitate customer inquiries; we anticipate a significant increase in customer direct inquires due to the new rates. In addition to these positions, a level of supervision is required. The Program Manager is responsible for collaborating with internal and external stakeholders to determine the best marketing approach, providing inputs into the GRC planning and budgeting, and identifying and implementing process improvement opportunities for the programs. In addition, the Program Manager is responsible for quality assurance reviews to ensure accuracy of budget tracking and forecast, promoting and broadening customer participation in the programs. If these positions are not funded, these new programs would not be managed as effectively as they would be otherwise,

thus potentially causing an unsatisfied customer experience and under-expected program participation.

The $82,000 in associated non-labor costs is being requested for a consultant to conduct customer surveys biennially to study the impacts of the rates on program participation, to compare best practices with similar deployment in other regions, and to investigate opportunities to enhance program design and implementation. The CPP-D medium customer group is unique when comparing to large CPP-D customers. The complexity and diversity of the medium sized business models and customer characteristics makes it challenging to manage into a demand response portfolio. Furthermore, the SPP rates present challenges associated with continuously educating the customers on the new rates about demand response and addressing their questions about impacts to their bills, as well as the increased complexity with the program and event managements. It's important to explore and research how to connect with these new customers into SDG&E's existing demand response portfolio and consequently modify the program design and implementation to better accommodate all participating customers.

ii. Customer Privacy Office

I am requesting $170,000 in labor above the 2013 base year for two Customer Privacy Specialists to support ongoing and new customer privacy initiatives. Privacy and security breaches, such as the recent Target incident, and even smaller breaches, such as Central Hudson Gas & Electric in New York last year that resulted in the unintentional disclosure of more than 100,000 customer banking records, are making news and raising customer concerns over the handling of their information and the protection of their privacy. The Smart Grid decisions adopting rules to protect privacy and security (D.11-07-056 and D.12-08-045) and the CPUC's decision adopting rules to provide access to energy usage data (D.14-05-016) mandate several new compliance requirements that must be managed using new processes and tools. These rulings coupled with increasing demands from third parties to access customer information add hundreds of new privacy requirements and controls that utilities are mandated to adhere to that did not exist before late 2012. The primary role and responsibilities for one of the specialists will include: gathering data for and delivering mandated annual privacy reports to regulators; facilitating CPUC-mandated privacy audits; conducting department and project-level privacy impact assessments across the business to ensure compliance with mandated privacy controls; consulting with projects and programs on privacy controls issues; developing new controls for

programs and projects where applicable and assisting with their implementation while adhering to Privacy by Design principles. The second specialist will handle the energy data access requirements outlined in D.14-05-016, including managing third party data requests from inception to final delivery, adherence to mandated timelines for processing third party requests, managing the Energy Data Portal and associated website, ensuring thorough review of third party privacy and security practices, assessing privacy risk to request, ensuring secure transmission of data to third parties for all approved requests, and managing enhancing the algorithms used to aggregate customer information according to the standards laid out in the decision. The second position will also be responsible for improving the entire system over time to meet future and ongoing third party, utility and regulatory requirements. These positions are critical to providing privacy-related services to our customers who expect and require that SDG&E ensure their privacy is protected. If these positions are not approved there would be an increased risk of a privacy control failure which could result in unwanted breaches of personal customer information, and significant delays in delivering customer information requested by third parties.

iii. Privacy Audit

In compliance with Ordering Paragraph 4 of CPUC D.11-07-056 and Ordering Paragraph 3 of CPUC D.12-08-045, SDG&E has contracted with a third party to perform an independent privacy audit of SDG&E's data privacy and security practices. The audit is scheduled to be completed in September 2014. The results of the audit will be included in the testimony of Greg Shimansky as part of SDG&E's final TY 2016 GRC application (Ex. SDG&E-38). Assuming SDG&E is on a three year rate case cycle, the next independent privacy audit will be conducted and reported to the CPUC as part of its TY 2019 GRC application. I am requesting $133,000 to fund the audit to be conducted in 2017. This amount represents one third of the total cost of SDG&E's 2014 audit ($294,000) and includes anticipated changes required by 2017 given the recent CPUC Decision adopting rules to provide access to energy usage data (D.14-05-016) and the Department of Energy's efforts to develop a set of standard privacy controls.

iv. Other

I am requesting $133,000 in labor above the 2013 base year for the CS PMO management activities. The CS PMO was established in 2013 and expanded in 2014 to include the non-capital activities described below. The request of $133,000 represents $68,000 for 50% of a Program Manager and $65,000 for 50% of a Project Manager. The remaining CS PMO

labor is being capitalized and is reflected in the IT capital requests. The CS PMO has oversight for all capital project activities related to the system development and enhancement of business processes and solutions to support Customer Services. Primary responsibilities include:

- Management of project teams and deliverables including the development of business case recommendations, requirements definition, and vendor selection;
- Design, build, and implementation activities into business solutions;
- Assess proposed architectural solutions with consideration to existing business processes, systems, regulatory mandates, costs, level of complexity, and customer impact;
- Actively monitoring risks at a detailed level related to budget, resource/system constraints, and schedule impact; and
- All project status communication to key stakeholders for all Customer Services' projects.

I am also requesting $5,000 in non-labor above the 2013 base year for the Consumer Products Index annual increase provided for in the software maintenance agreement for the company's Service Order Routing Technology system.

III. SHARED COSTS

This section presents SDG&E's estimated TY 2016 expenses for shared services that are required for both SoCalGas and SDG&E. I am sponsoring the forecasts on a total incurred basis, as well as the shared services allocation percentages related to those labor and non-labor costs. Those percentages are presented in my shared services workpapers, along with a description explaining the activities being allocated. See Ex. SDG&E-14-WP Shared Services section. The dollar amounts allocated to affiliates are presented in our Shared Services Policy and Procedures testimony sponsored by Mark Diancin (See Ex. SDG&E-26). Table 1 of my testimony summarizes the shared services costs for Customer Service Office Operations, Information, and Technologies.

A. Customer Service Operations

Table 46 below summarizes SDG&E's requested TY 2016 expenses for Customer Service Operations.

TABLE 46

Shared O&M Summary of Costs

CS - OPERATIONS, INFORMATION & TECHNOLOGIES			
Shown in Thousands of 2013 Dollars Incurred Costs (100% Level)			
A. Customer Service Operations Shared Services	**2013 Adjusted-Recorded**	**TY2016 Estimated**	**Change**
1. Customer Service Strategies 2100-0006	$121	$121	$0
2. Business Planning & Budgets Customer Service 2100-3461	$125	$125	$0
3. CCC Strategy and Analysis Manager 2100-3511	$130	$130	$0
Incurred Costs Total	**$376**	**$376**	**$0**

1. Customer Service Strategies

Table 47 below summarizes SDG&E's requested TY 2016 expenses for Customer Service Strategies.

TABLE 47

Forecast for Customer Service Strategies

CS - OPERATIONS, INFORMATION & TECHNOLOGIES			
Shown in Thousands of 2013 Dollars Incurred Costs (100% Level)			
A. Customer Service Operations Shared Services	**2013 Adjusted-Recorded**	**TY2016 Estimated**	**Change**
1. Customer Service Strategies 2100-0006	$121	$121	$0

a. Description of Costs and Underlying Activities

The Customer Service Strategies shared service cost center provides support for continuous improvement initiatives, SoCalGas Strategic Initiative support, and planning / case management for SDG&E and SoCalGas Customer Service TY 2016 GRC.

The calculations for the estimated expenses are included in workpapers, Ex. SDG&E-14-WP 2100-0006.

b. Forecast Method

In the TY 2012 GRC, a 5-year historical average forecast method was used for Customer Service Strategies. I chose a base year forecast method because 2013 represents the current activity level and is not expected to change. Furthermore, this workgroup has one FTE whose work is not cyclical in nature and should remain constant for 2014 through 2016. Therefore, the base year provides a reasonable starting point for future expenditures.

c. Cost Drivers

I am not requesting any additional dollars above the 2013 base year for Customer Service Strategies.

2. Business Planning & Budgets

Table 48 below summarizes SDG&E's requested TY 2016 expenses for Business Planning & Budgets.

TABLE 48

Forecast for Business Planning & Budgets

CS - OPERATIONS, INFORMATION & TECHNOLOGIES			
Shown in Thousands of 2013 Dollars Incurred Costs (100% Level)			
A. Customer Service Operations Shared Services	**2013 Adjusted-Recorded**	**TY2016 Estimated**	**Change**
2. Business Planning & Budgets Customer Service 2100-3461	$125	$125	$0

a. Description of Costs and Underlying Activities

Business Planning & Budgets Customer Service manages the business planning work and provides supervision to the planners who support SoCalGas Customer Service Office Operations and some SDG&E functions. SDG&E functions supported include Remittance Processing,

Natural Gas Vehicles, and Business Solutions. The workgroup provides oversight, guidance, compliance, and budget tracking, reporting and forecasting.

The calculations for the estimated expenses are included in workpapers, Ex. SDG&E-14-WP 2100-3461.

b. Forecast Method

In the TY 2012 GRC, a 5-year historical average forecast method was used for Business Planning & Budgets. I chose a base year forecast method because 2013 represents the current activity level and is not expected to change. Furthermore, this workgroup has one FTE whose work is not cyclical in nature and should remain constant for 2014 through TY 2016. Therefore, the base year provides a reasonable starting point for future expenditures.

c. Cost Drivers

I am not requesting any additional dollars above the 2013 base year for Business Planning and Budgets Customer Service.

3. CCC Strategy & Analysis Manager

Table 49 below summarizes SDG&E's requested TY 2016 expenses for CCC Strategy & Analysis Manager.

TABLE 49

Forecast for CCC Strategy & Analysis Manager

CS - OPERATIONS, INFORMATION & TECHNOLOGIES			
Shown in Thousands of 2013 Dollars Incurred Costs (100% Level)			
A. Customer Service Operations Shared Services	**2013 Adjusted-Recorded**	**TY2016 Estimated**	**Change**
3. CCC Strategy and Analysis Manager 2100-3511	$130	$130	$0

a. Description of Costs and Underlying Activities

The CCC Strategy & Analysis manager provides oversight of the Customer Contact Center budget planning group for SoCalGas. The main focus of this position is on strategies and planning activities for the SoCalGas Customer Contact Centers.

The calculations for the estimated expenses are included in workpapers, Ex. SDG&E-14-WP 2100-3511.

b. Forecast Method

In the TY 2012 GRC, a 5-year historical average forecast method was used for CCC Strategy & Analysis Manager. I chose a base year forecast method because 2013 represents the current activity level and is not expected to change. Furthermore, this workgroup has one FTE whose work is not cyclical in nature and should remain constant for 2014 through 2016. Therefore, the base year provides a reasonable starting point for future expenditures.

c. Cost Drivers

I am not requesting any additional dollars above the 2013 base year for the CCC Strategy & Analysis Manager.

B. Customer Service Technologies, Policies, and Solutions

Table 50 below summarizes SDG&E's requested TY 2016 expenses for Customer Service Technologies, Policies, and Solutions.

TABLE 50

Shared O&M Summary of Costs

Shown in Thousands of 2013 Dollars Incurred Costs (100% Level)			
B. CS Technologies, Policies, and Solutions Shared Services	**2013 Adjusted-Recorded**	**TY2016 Estimated**	**Change**
1. Planning & Development 2100-3434	$505	$505	$0
2. Low Emissions Vehicle Program 2100-3709	$95	$98	$3
Incurred Costs Total	**$600**	**$603**	**$3**

1. Planning & Development

Table 51 below summarizes SDG&E's requested TY 2016 expenses for Planning & Development.

TABLE 51

Forecast for Planning & Development

Shown in Thousands of 2013 Dollars Incurred Costs (100% Level)			
B. CS Technologies, Policies, and Solutions Shared Services	**2013 Adjusted-Recorded**	**TY2016 Estimated**	**Change**
1. Planning & Development 2100-3434	$505	$505	$0

a. Description of Costs and Underlying Activities

The Planning and Development shared service group provides analytical and execution support for initiatives in four strategic priority area: operational excellence, development and deployment of clean energy solutions for customers, advocacy for sensible policies and regulations that support ratepayer interests and advance Commission policy, maintaining a properly skilled workforce. This group also manages various external information services on a company-wide basis.

The calculations for the estimated expenses are included in workpapers, Ex. SDG&E-14-WP 2100-3434.

b. Forecast Method

In the TY 2012 GRC, a 5-year historical average forecast method was used for Planning and Development. I chose a base year forecast method because 2013 represents the current activity level and is not expected to change. Furthermore, this workgroup has a small number of FTEs whose work is not cyclical in nature and should remain constant for 2014 through TY 2016. Therefore, the base year provides a reasonable starting point for future expenditures.

c. Cost Drivers

I am not requesting any additional dollars above the 2013 base year for Planning and Development.

2. Low Emission Vehicle Program

Table 52 below summarizes SDG&E's requested TY 2016 expenses for the Low Emissions Vehicle Program.

TABLE 52

Forecast for Low Emission Vehicle Program

Shown in Thousands of 2013 Dollars Incurred Costs (100% Level)			
B. CS Technologies, Policies, and Solutions Shared Services	**2013 Adjusted-Recorded**	**TY2016 Estimated**	**Change**
2. Low Emissions Vehicle Program 2100-3709	$95	$98	$3

a. Description of Costs and Underlying Activities

The Low Emissions Vehicle Program shared service cost center supports the SDG&E Low Emissions Vehicle Program; providing Natural Gas Vehicle (NGV) utility account management, customer information, education, and training services to the general public, operators of NGVs, operators of NGV refueling stations, government agencies, and others throughout the service territories of both SoCalGas and SDG&E.

The calculations for the estimated expenses are included in workpapers, Ex. SDG&E-14-WP 2100-3709.

b. Forecast Method

In the TY 2012 GRC, a 5-year historical average forecast method was used for Low Emissions Vehicle Program. I chose a base year forecast method because 2013 represents the current activity level and is not expected to change. Furthermore, this workgroup has one FTE whose work is not cyclical in nature and should remain constant for 2014 through TY 2016. Therefore, the base year provides a reasonable starting point for future expenditures.

c. Cost Drivers

Table 53 summarizes the changes in the Low Emissions Vehicle Program estimated expenses for TY 2016.

TABLE 53

Changes in the Low Emissions Vehicle Program TY 2016 Estimated Expenses

Low Emissions Vehicle Program	TY 2016 - 2013 Change ($000)			
	Labor	Non-Labor	Total	FTEs
Travel Expenses		$3	$3	
Total TY 2016 Impact	**$0**	**$3**	**$3**	**0.0**

i. Travel Expenses

SDG&E is requesting an additional $3,000 in non-labor above the 2013 Base Year for additional travel expenses. The number of annual G-NGV new service requests averaged 15 installations between 2009 and 2013 and is expected to increase to 30 installations through TY 2016. The budget forecast funds activities necessary to support the continued adoption of natural gas as a transportation fuel consistent with the requirement of Public Utilities Code 740.3 (a) to "…promote the development of equipment and infrastructure needed to facilitate the use of…natural gas to fuel low-emission vehicles…" as described in the Direct Testimony of SoCalGas witness Jeffrey Reed (Ex. SCG-13). Specific activities include account management and the delivery of customer information, education, training, and outreach and facilitation of customer new service requests for transportation applications.

IV. UNCOLLECTIBLE RATE

I am not requesting any change to SDG&E's current uncollectible rate of 0.174%. The requested uncollectible rate is based on a 5-year average (2009-2013). The volatility or cyclical nature of the uncollectible rate depends on macroeconomic, microeconomic and regional economic factors and the variability of seasonal energy bills (hotter summers mean higher electric bills for air conditioning and colder winters mean higher natural gas bills for heating). However, the precise incremental impact to the uncollectible rate due to each of the independent variables (and in some case collinear variables) is difficult to quantify and correlate. Nevertheless, a larger energy bill means that a greater proportion of customers will have difficulty paying, and therefore increase the likelihood of an uncollectible expense. The 5-year average of the uncollectible rate implicitly includes the cyclical variation of such economic-related factors; energy bill-related variability and credit practice changes (whether mandated or voluntarily instituted).

The following Table 54 displays the historical uncollectible rate from 2004 – 2013 and a 10-year, 5-year, and 3-year average.

TABLE 54
SDG&E Uncollectible Data 2004 – 2013

Year	Recorded Uncollectible Expense (a)	Sales Revenues (b)	Uncollectible Rate (a)/(b)
2004	$3,024,937	$2,092,976,632	0.145%
2005	$2,914,345	$2,249,879,566	0.130%
2006	$3,273,363	$2,557,737,185	0.128%
2007	$4,855,651	$2,784,813,403	0.174%
2008	$6,675,500	$2,775,376,420	0.241%
2009	$5,278,315	$2,836,818,502	0.186%
2010	$4,828,063	$2,865,422,686	0.168%
2011	$6,162,914	$3,087,387,963	0.200%
2012	$5,027,626	$3,030,246,377	0.166%
2013	$4,911,906	$3,225,416,802	0.152%
10-Year Average	$46,952,620	$27,506,075,536	0.171%
5-Year Average	$26,208,824	$15,045,292,330	0.174%
3-Year Average	$16,102,446	$9,343,051,142	0.172%

Note: Adjusted for all Enron related write offs and recoveries.

V. CAPITAL

I am sponsoring the business rationale for each of the following IT capital projects. The estimated capital expense requests are included in the testimony of Stephen Mikovits (Ex. SDG&E-19). Table 55 summarizes the total capital forecasts for 2014, 2015, and TY 2016.

TABLE 55

Capital Expenditures Summary of Costs

INFO TECH/TELECOM CAPITAL			
Shown in Thousands of 2013 Dollars			
CS - Operations, Information, and Technologies	**Estimated 2014 ($000)**	**Estimated 2015 ($000)**	**Estimated 2016 ($000)**
1. Technical Obsolescence	$0	$5,852	$4,136
2. Improving Customer Experience	$5,368	$3,802	$8,741
3. Mandated	$9,718	$11,223	$455
4. Business Optimization	$9,095	$4,069	$0
5. Understanding Customers	$2,562	$1,371	$2,247
Total	**$26,743**	**$26,317**	**$15,579**

The following lists the detailed capital projects by category as summarized in Table 55 and described in more detail in Table 56 below.

TABLE 56

Capital Expenditures Summarized by Category

GRID WP #	**Capital Project #**	**Capital Project Name**	**2014 Total ($000)**	**2015 Total ($000)**	**TY2016 Total ($000)**
00832A	14006	Branch Office Technical and Security Improvements	$0	$824	$0
00831B	15009	EBPP Tech Refresh	$0	$2,080	$3,891
00833D	15012	I-Avenue Replacement	$0	$2,948	$245
		Sub-Total Technical Obsolescence	**$0**	**$5,852**	**$4,136**
00831O	11013	SCG My Account Accessibility	$113	$0	$0
00831P	12051	SDG&E My Account Accessibility	$4,704	$1,587	$0
00831J	14015	C&I Business Portal	$0	$0	$7,347
00831L	14023	IVR Phase 4 SDG&E	$551	$0	$0
00831A	15007	SDG&E.com Redesign	$0	$286	$0
03849C	15800	Bill Re-Design	$0	$1,929	$1,394
		Sub-Total Improving Customer Experience	**$5,368**	**$3,802**	**$8,741**

GRID WP #	Capital Project #	Capital Project Name	2014 Total ($000)	2015 Total ($000)	TY2016 Total ($000)
10872A	10872	Smart Peak Pricing	$1,934	$0	$0
03851D	13003	GRC Phase 2	$638	$0	$0
03851F	13021	Critical Peak Pricing Default (CPP-D)	$5,231	$7,445	$0
13849A	13026	Reduce your Use Opt-In	$998	$0	$0
03849A	14039	CEN Phase 4 - System Enhancements	$0	$455	$455
00831M	14040	Direct Access Service Request (DASR)	$0	$373	$0
00831N	14065	CCA - Community Choice Aggregation	$0	$2,950	$0
04843A	14843	Smart Meter IT Phase 3 Billing	$917	$0	$0
		Sub-Total Mandated	**$9,718**	**$11,223**	**$455**
00833U	13009	Smart Energy Advisor	$1,113	$0	$0
03849B	13012	Net Energy Metering Enhancement	$71	$0	$0
00833R	13013	Smart Meter Operation Center Network	$314	$0	$0
03851H	13031	Smart Meter Operations Center Exception Management (SMOC-EM)	$2,802	$508	$0
00831E	14005	Off But Registering (OBR) Enhancement	$0	$554	$0
00833F	14013	Centralized Calculation Engine	$2,071	$3,007	$0
00833G	14017	Smart Energy Advisor 2	$2,724	$0	$0
		Sub-Total Business Optimization	**$9,095**	**$4,069**	**$0**
00821A	13010	Customer Analytics System 2013	$2,562	$0	$0
03853B	14030	Customer Analytics System - Phase II	$0	$1,371	$1,339
03853C	16003	Customer Analytics System - III	$0	$0	$908
		Sub-Total Understanding Customers	**$2,562**	**$1,371**	**$2,247**
		Grand Total All	**$26,743**	**$26,317**	**$15,579**

A. Technical Obsolescence

Table 57 below shows a summary of the requested capital expenditures related to technical obsolescence.

TABLE 57

Technical Obsolescence Capital Summary

GRID WP #	Capital Project #	Capital Project Name	2014 Total ($000)	2015 Total ($000)	TY2016 Total ($000)
00832A	14006	Branch Office Technical and Security Improvements	$0	$824	$0
00831B	15009	EBPP Tech Refresh	$0	$2,080	$3,891
00833D	15012	I-Avenue Replacement	$0	$2,948	$245
		Technical Obsolescence	**$0**	**$5,852**	**$4,136**

1. Branch Office Technical and Security Improvements (Project #14006)

The purpose of the Branch Office Technical and Security Improvements project is to provide for more secure financial transactions, easier cash and payment reconciliation, improved processing/handling, and an overall better customer payment experience. The project will seek to improve upon the existing payment handling and processing in the Branch Offices. For example, debit card payments are currently not available to customers who wish to pay over the counter in the Branch Offices, cash and change is given out by hand, and the existing Payment Entry Processing ("PEP") system is not efficient and is not entirely compatible with any of the new software programs or project initiatives for the CCC and Branch Offices. There are also issues between the PEP system and some of the newer implementations for the Smart Energy Advisor desktop ("SEAd") and Customer Analytics System ("CAS") projects. In addition, this project will address several known technology issues with SDG&E's ExpressPay kiosks. The existing kiosks are outdated from a technology standpoint and are in need of software upgrades and/or retrofitting and need to be replaced with a newer, more efficient technology. This project will also identify improvements to help with payment processing and better ways to track and secure cash that is received from customers. The forecast for the Branch Office Technical and Security Improvements for 2014, 2015, and 2016 are $0, $824,000, and $0, respectively. The expected completion date for this project is Q4 2015. See capital workpapers of Stephen Mikovits (Ex. SDG&E-19-CWP-00832A).

2. EBPP Tech Refresh (Project #15009)

The purpose of the EBPP Tech Refresh project is to replace the existing back-end technology platform for the online electronic bill presentment and payment ("EBPP") process available to customers through SDG&E's My Account website. Upgrading the technology now will enable continued support of the site before the vendor for our current technology stops supporting the existing product in 2018. This is the same vendor supporting the customer-facing My Account portal site which is being replaced as part of the SDG&E My Account Accessibility project (project #12051). Updating the platform will improve stability, dependability, and cost to support EBPP for customers. This is important because of the increased needs of the SDG&E customer base as demonstrated by EBPP's ability to handle the increased volume of transactions required by the C&I customers being addressed by the CPP-D project #13021. The forecast for the EBPP Tech Refresh project for 2014, 2015, and 2016 are $0, $2,080,000, and $3,891,000, respectively. The expected completion date for this project is Q4 TY 2016. See capital workpapers of Stephen Mikovits (Ex. SDG&E-19-CWP-00831B).

3. I-Avenue Replacement (Project #15012)

I-Avenue, also known as Saratoga, is a Customer Relationship Management ("CRM") tool used by Commercial and Industrial services. In short, the system manages and tracks the interaction that takes place between SDG&E and its business customers. An upgrade is needed to bring the system up to current technology, and will require additional changes to master data to meet the business' desire to have a more real-time, holistic view of each customer's usage profile. More specifically, I-Avenue will be upgraded to take advantage of the existing integrations to the SAP-CRM system (e.g., email) and SAP CRM out of the box functionality to support business requirements including: appointments, notes, contact lists, calendars, letters and reporting as well as, client specific views. The forecast for the I-Avenue Replacement project for 2014, 2015, and 2016 are $0, $2,948,000, and $245,000, respectively. The expected completion date for this project is Q2 TY 2016. See capital workpapers of Stephen Mikovits (Ex. SDG&E-19-CWP-00833D).

B. Improving Customer Experience

Table 58 below shows a summary of the requested capital expenditures related to improving the customer experience.

TABLE 58

Improving Customer Experience Capital Summary

GRID WP #	Capital Project #	Capital Project Name	2014 Total ($000)	2015 Total ($000)	TY2016 Total ($000)
00831O	11013	SCG My Account Accessibility	$113	$0	$0
00831P	12051	SDG&E My Account Accessibility	$4,704	$1,587	$0
00831J	14015	C&I Business Portal	$0	$0	$7,347
00831L	14023	IVR Phase 4 SDG&E	$551	$0	$0
00831A	15007	SDG&E.com Redesign	$0	$286	$0
03849C	15800	Bill Re-Design	$0	$1,929	$1,394
		Improving Customer Experience	**$5,368**	**$3,802**	**$8,741**

1. SoCalGas My Account Accessibility Phase 3 (Project #11013)

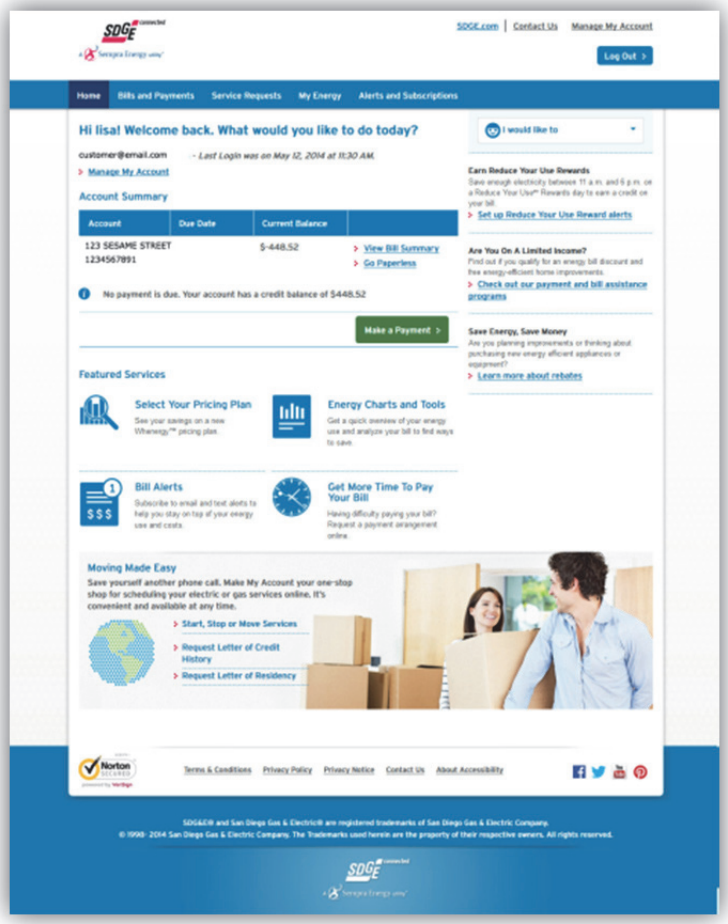
The purpose of the SoCalGas My Account Accessibility (hereafter referred to as the My Account Accessibility Usability Improvement "MAAUI" project) project (PDF Bill remediation) is to complete the update to My Account and comply with TY 2008 GRC Memorandum of Understanding with the Center for Accessible Technology (C for AT). This is a shared asset and billed 100% to SoCalGas. SoCalGas has long supported website usability and accessibility and has been making steady progress meeting its commitments to website accessibility as outlined in section 4.A.2.d of the MOU which states: "*.... the third party vendor software used for My Account will be rewritten to utilize accessible web pages that are compliant with Priorities A and AA and produce PDF documents that will be in an accessible format that would allow for a reader to review them using a screen reader*". In July of 2013 the My Account system rewrite was completed and Priority AA compliance was confirmed by the C for AT. SoCalGas continues to modify the 25 months of billing history stored as PDF documents and available online to every My Account user in order to be remain compliant with the MOU. More specifically, key requirements for the SoCalGas MAAUI Phase 3 project includes providing an alternative bill format that is readable with "screen readers" and font enlargement software and to provide accessible linkage to the new alternative bill format. SoCalGas' web and My Account teams have collaborated closely with the C for AT and other internal or external website

accessibility resources in order to assure that all our customers with special needs can utilize every feature of socalgas.com and My Account. This project will provide Priority AA accessibility compliance to every feature and function in My Account. The forecast for the SoCalGas My Account Accessibility project for 2014, 2015, and 2016 are $113,000, $0, and $0, respectively. The expected completion date for this project is Q1 2014. See capital workpapers of Stephen Mikovits (Ex. SDG&E-19-CWP-00831O).

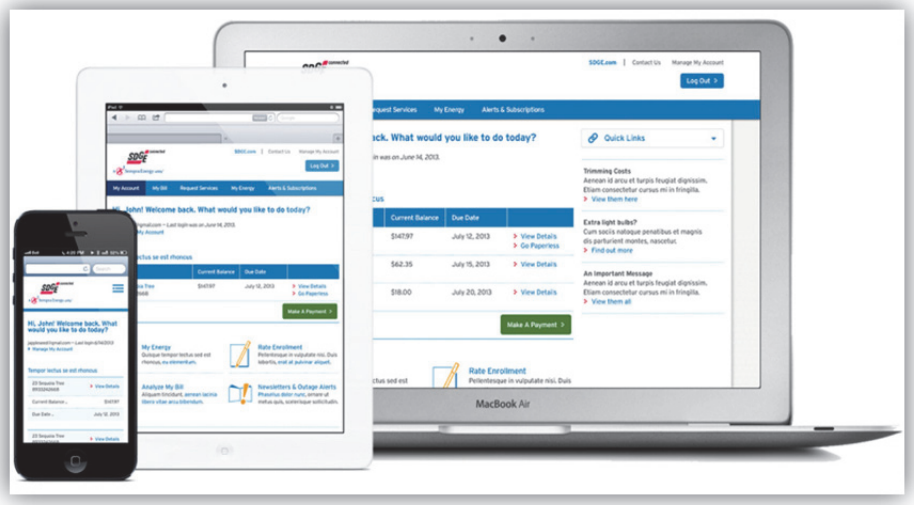
2. SDG&E My Account Accessibility (Project #12051)

The purpose of the SDG&E My Account Accessibility is to update the customer-facing My Account portal site to comply with TY 2008 GRC Memorandum of Understanding ("MOU") with the Disability Rights Advocates while improving usability and upgrading the portal technology platform. The My Account portal site provides customers with convenient access to online service options. Updating the user interface will enhance customer experience through improved visual layout, additional personalization, and newer technology. The new technology will allow for the implementation Priority A and Priority AA Web Content Accessibility Guidelines 2.0 and requirements per section §4.3 of the 2008 MOU in order to ensure all our customers, including those with special needs, can utilize every My Account feature. Pages will be easier to read and customers who sign up can view their SDG&E bill, schedule online payments, manage service requests, view energy charts, and use analysis tools. New personalization will present at-a-glance balance and bill payment information, and an improved tailored account summary. The implementation of responsive design will create a seamless web experience with the same look-and-feel across mobile devices and other company sites, such as sdge.com supporting computer-alternative devices, such as mobile smartphones and tablets, will provide greater access to My Account for customers who may have barriers to technology. Pictures 3 and 4 below provide examples of the new My Account and how it could appear on different device types. Upgrading the portal technology platform now will enable continued support of the site before the vendor for our current WebLogic technology stops supporting the existing product in 2018. The forecast for the SDG&E My Account Accessibility project for 2014, 2015, and 2016 are $4,704,000, $1,587,000, and $0, respectively. The expected completion date for this project is Q2 2015. See capital workpapers of Stephen Mikovits (Ex. SDG&E-19-CWP-00831P).

PICTURE 3



PICTURE 4



3. C&I Business Portal (Project #14015)

The purpose of the C&I Business Portal is to address the specific needs of the medium and large commercial and industrial (C&I) customers. Currently, My Account provides online self-service for residential and small commercial customers; however does not address the specific needs of the medium and large C&I customers. To satisfy the requests from this segment of customers and to enhance the customer experience for those that utilize our existing and future on-line customer tools, a C&I Business Portal will be developed for medium and large C&I customers. This portal will be a centralized location that provides the C&I customer roles the ability to utilize tools that support energy analysis from a cost and consumption level, event management, rate eligibility and enrollment, bill payment, benchmarking and energy efficiency. Across those functions additional capabilities will be developed to allow for role based access and complex analysis such as:

- Business level C&I Customer Registration into My Account allowing access to business-level related functions supporting C&I tools
- Aggregation and disaggregation of accounts for multi-account customers
- Management of complex (Many-to-Many) relationships between master users and delegated users for selected business functions
- Customer Managed Contact Management at the user level
- Subscription/Alerts

The forecast for the C&I Business Portal project for 2014, 2015, and 2016 are $0, $0, and $7,347,000, respectively. The expected completion date for this project is Q4 TY 2016. See capital workpapers of Stephen Mikovits (Ex. SDG&E-19-CWP-00831J).

4. IVR Phase 4 (Project #14023)

The SDG&E IVR manages incoming customer calls to the CCC. The application guides the customer through menus, which either provide functions for the customer to self-serve (e.g. extend the due date on their bill; arrange for a gas appliance service order) or collects information about the caller to route the call to the properly skilled agent. The IVR Phase 4 project will shorten the call flow from the IVR entry to main menu and sub-menu; eliminate unnecessary caller authentication; minimize steps to complete a gas appliance service order; revise prompt verbiage for improved clarity and succinctness; and add self-service opportunities to start/stop service. The enhancements are intended to improve the experience for the caller and

transition callers to use self-service. The benefits of this project are to increase IVR self-service and to reduce calls to the ESS and ESS workforce. The forecast for the IVR Phase 4 project for 2014, 2015, and 2016 are $551,000, $0, and $0, respectively. The expected completion date for this project is Q4 2014. See section II.A.8.c.vi of my testimony for the savings resulting from the implementation of this project. See capital workpapers of Stephen Mikovits (Ex. SDG&E-19-CWP-00831L).

5. SDG&E.com Redesign (Project #15007)

The purpose of the SDG&E.com Redesign project is to redesign the SDG&E website, SDG&E.com. The website has become a prominent and essential communications channel to connect with customers. The redesign is needed because of new customer technologies (e.g. mobile, social media) and increase search engine friendliness. The website redesign will incorporate customer usage trend data and above-mentioned technologies to improve self-service. An enhanced navigation and information architecture will help customers find information easier and faster, a consistent experience with My Account, as well as removing out of date information, adding new features and technologies that were not available when the site was last built, and integration of the latest social media interfaces, image and video galleries, and blogging interfaces. Additionally, a redesign will help with compatibility with the latest browsers and accessibility requirements. The forecast for the SDG&E.com Redesign project for 2014, 2015, and 2016 are $0, $286,000, and $0, respectively. The expected completion date for this project is Q4 2015. See capital workpapers of Stephen Mikovits (Ex. SDG&E-19-CWP-00831A).

6. Bill Redesign (Project #15800)

The purpose of the Bill Redesign project is to improve SDG&E's customer bill to address changes in the electric utility industry. The existing customer bill was designed in 2008 and implemented in 2010. As the electric industry is changing, our existing bill format lacks the flexibility to meet the expectations or the future needs of our customers. This project will leverage the existing formatting software to redesign our bill, and to enhance the bill presentation and graphics. Customer expectations are expanding dramatically and each succeeding generation of SDG&E customers emerge with new technologies that provide new options for our customers. Smart Meter data allows us to provide more specific and targeted information than ever before. Rate reform, SPP and Demand Response programs will require us to provide

timely, valuable and easy to read power usage information, alternative rate options and other important information to our customers to help them to make informed decisions in support of energy use, cost and conservation. While these tools are available now to customers online, over half our customers still receive a paper bill. The objective of this project is to target those customers and provide a paper bill that is easier to understand, incorporates more graphic information, and provides a large font option. SDG&E also plans to offer customers currently receiving a paper bill the option of a one sheet/two page summary bill in lieu of the current full bill detail. The forecast for the Bill Redesign project for 2014, 2015, and 2016 are $0, $1,929,000, and $1,394,000, respectively. The expected completion date for this project is Q4 TY 2016. See capital workpapers of Stephen Mikovits (Ex. SDG&E-19-CWP-03849C).

C. Mandated Projects

Table 59 below shows a summary of the requested capital expenditures related to mandated projects.

TABLE 59

Mandated Capital Project Summary

GRID WP #	Capital Project #	Capital Project Name	2014 Total ($000)	2015 Total ($000)	TY2016 Total ($000)
10872A	10872	Smart Peak Pricing	$1,934	$0	$0
03851D	13003	GRC Phase 2	$638	$0	$0
03851F	13021	Critical Peak Pricing Default (CPP-D)	$5,231	$7,445	$0
13849A	13026	Reduce your Use Opt-In	$998	$0	$0
03849A	14039	CEN Phase 4 - System Enhancements	$0	$455	$455
00831M	14040	Direct Access Service Request (DASR)	$0	$373	$0
00831N	14065	CCA - Community Choice Aggregation	$0	$2,950	$0
004843A	14843	Smart Meter IT Phase 3 Billing	$917	$0	$0
		Mandated	**$9,718**	**$11,223**	**$455**

1. Smart Peak Pricing (Project #10872)

As discussed in section II.A.3.c.ii of my testimony, the SPP was established in 2010 to implement new time varying rate options, customer tools and other provisions adopted by CPUC D.12-12-004. The SPP has implemented a number of releases including but not limited to the system changes necessary to bill customers on the new SPP rates. The purpose of this phase of

the overall SPP is to implement additional customer engagement functionality for NEM customers, enhancements allowing for new customers to enroll in the SPP rates over the phone, a new system for understanding the effectiveness of our outreach and education efforts, enhanced reporting, and updates to our customer subscription and alert architecture. The forecast for the Smart Peak Pricing project for 2014, 2015, and 2016 are $1,934,000, $0, and $0, respectively. The expected completion date for this project is Q4 2014. While these capital expenses are recovered through the Dynamic Pricing Balancing Account, pursuant to CPUC D.12-12-004, these expenses are included herein for the purpose of determining SDG&E's rate base for its TY 2016 GRC. See capital workpapers of Stephen Mikovits (Ex. SDG&E-19-CWP-10872A).

2. GRC Phase II (Project 13003)

The GRC Phase II rate design project is being implemented in compliance with CPUC D.14-01-002 in Phase II of SDG&E's 2012 General Rate Case application (A.10-12-005). More specifically, the project includes making changes to SDG&E's Customer Information System to enable the billing of the electric rates adopted by D.14-01-002. In addition, the electric rate changes also need to be made to SDG&E's online Energy Management Tool which provides customers with bill-to-date, bill history, and other electric energy pricing information. The rate changes became effective for customers on May 1, 2014. As with every project, there are post-go live activities. The forecast for the GRC Phase II project for 2014, 2015, and 2016 are $638,000, $0, and $0, respectively. The expected completion date for this project is Q3 2014. See capital workpapers of Stephen Mikovits (Ex. SDG&E-19-CWP-03851D).

3. CPP-D (Project #13021)

The purpose of the CPP-D (Critical Peak Pricing – Default) Medium project is to support the rollout and ongoing management of the CPP rate for the mid-sized business customers in SDG&E's service territory.[80] Unlike the small business customers, mid-sized customers have more complex electric service and multiple accounts serving their business which drives the need for a more robust tool for SDG&E to use to manage the enrollment, billing, anniversary management, and outreach. Likewise, the customers require more complex functionality to manage being on a Critical Peak Pricing rate compared to their more simplistic time-of-use rate structure.

[80] CPP-D was adopted by CPUC D.08-02-034 in SDG&E's Rate Design Window application (A.07-01-047).

The CPP-D Medium project includes an online tool for the mid-sized customers to manage and monitor their energy usage and costs with the ability to group their accounts and review them at an aggregate level as well as to monitor the details down to each account and interval. Furthermore, C&I customers who are group billed[81] will have the ability to view and pay their bills online, access historical group bills (including a download/print feature) and will have the option to select paperless billing.

Demand response events, a key component of the CPP rate, will be managed including customer notifications, event day management and post event analytics and metrics for the customers to manage their performance. The tool will also provide this customer group with high level benchmarking for their business type as well as recommendations for energy efficiency programs to consider.

The scope of the CPP-D Medium project includes the implementation of two online tools for the customers to access and a number of integrations into SDG&E's existing application portfolio. Key integrations included in the project are My Account, Customer Relationship Management (CRM) and Customer Information System. Without this automation project, the implementation of the CPP-D rate for the mid-sized customers would be done with manual processes and providing no tool for the customers to effectively manage their participation on the new time-of-use rate. The forecast for the CPP-D project for 2014, 2015, and 2016 are $5,231,000, $7,445,000, and $0, respectively. The expected completion date for this project is Q1 2015. See capital workpapers of Stephen Mikovits (Ex. SDG&E-19-CWP-03851F).

4. Reduce Your Use ("RYU") Opt-In (Project #13026)

The RYU Opt-In project complied with CPUC D.13-07-003 by converting the Peak Time Rebate ("PTR") program to an opt-in program, including taking customer calls to participate in the program, coding such customers as program participants, and enabling SDG&E to call a PTR program event involving only those customers who have taken the action necessary to opt into the program. This allows only those customers who have opted into the program to receive PTR program event alert notifications and be eligible to receive bill credits for load reductions achieved during PTR program events. Additional activities included modifying the online bill presentment of PTR program results, energy savings, and bill credits through the Energy

[81] Customers who are group billed have more than one account and receive one monthly bill which summarizes the charges for all their accounts and allows for a single payment.

Management Tool contained within SDG&E's My Account system. The PTR Opt-In project became available to customers on May 1, 2014. As with every project, there are post-go live activities. The forecast for the Reduce Your Use ("RYU") project for 2014, 2015, and 2016 are $998,000, $0, and $0, respectively. The expected completion date for this project is Q3 2014. See capital workpapers of Stephen Mikovits (Ex. SDG&E-19-CWP-13849A).

5. CEN Phase 4 – System Enhancements (Project #14039)

The purpose of the Customer Energy Network ("CEN") Phase 4 project is to enhance the current CEN system which provides Smart Meter consumption information to external third parties who provide online presentment and other service offerings. Enhancements are necessary to meet requirements mandated in the decision Authorizing Provision of Customer Energy Data to Third Parties Upon Customer Request (CPUC D.13-09-025). Enhancements include conforming to the Energy Services Platform Interface (ESPI) data standard, third party registration portal, enrollment and other user interface changes in SDG&E's My Account website. Additionally, CPUC D.13-09-025 mandated changes are also required to CEN's back-office platform to include application programming interfaces (API) and web services, reporting and administration services that manage third party and customer enrollments. The forecast for the CEN Phase 4 – System Enhancements project for 2014, 2015, and 2016 are $0, $455,000, and $455,000, respectively. The expected completion date for this project is Q4 2016. See capital workpapers of Stephen Mikovits (Ex. SDG&E-19-CWP-03849A).

6. Direct Access Service Request Upgrade (Project #14040)

The Direct Access Service Request ("DASR") System is a data management system used by SDG&E to exchange electronic and manual data input and output files with the Electronic Data Interchange (EDIX) System, Customer Information System, and other data management systems. The DASR system allows for the enrollment, termination, and customer account management associated with customers receiving electric or gas commodity services from an Electric Service Provider under the Direct Access ("DA") Program (electric), an Aggregator under the Core Aggregation Transportation Program (gas), or a Community Choice Aggregator ("CCA") under the CCA Program (electric), collectively known as Energy Service Providers (ESPs). The DASR system upgrade will automate the DASR and related system processes (EDI, Service Order, and Load Migration), streamline processes across multiple applications to reduce existing time-lag, automate all DASR service orders, minimize the necessity for manual

processing and verification of DASRs, ensure the accuracy of all DA billing, reduce the cancel and re-bill of customer billing due to data errors, and automate the Load Migration Reporting to the CAISO. These functional and technical enhancements are required to support the current DA business and are foundational to CCA. The current system has reached the end of its useful life and is to be reconfigured or replaced. The new or reconfigured DASR System must have the functional capabilities required to support efficient, accurate, and timely processing of service requests and other electronic data exchanges between SDG&E and Load Serving Entities (LSE), including CCAs, and their agents. While the system changes required for CCA are being proposed under a separate project, implementing these DASR enhancements will mitigate the company's risk of not being fully prepared to develop and deploy the CCA-specific enhancements under regulatory timing constraints. The forecast for the Direct Access Service Request Upgrade project for 2014, 2015, and 2016 are $0, $373,000, and $0, respectively. The expected completion date for this project is Q4 2015. See capital workpapers of Stephen Mikovits (Ex. SDG&E-19-CWP-00831M).

7. Community Choice Aggregation (CCA) (Project #14065)

The purpose of the Community Choice Aggregation ("CCA") capital project is to make the necessary changes to SDG&E's systems to implement CCA. CCA permits cities and counties to provide electric commodity services to customers located within their jurisdiction.[82] Under CCA, SDG&E would be required to provide basic CCA implementation services as well as ongoing support, including SDG&E consolidated billing for all CCA customers within their boundaries and ongoing DASR communications between the CCA and SDG&E. The existing DASR system requires a technical upgrade and functional enhancements to meet the current Direct Access business needs. The CCA project is dependent on these DASR system modifications as these changes are foundational to the DASR CCA enhancements. The DASR upgrade has been proposed under a separate project due to the risk of timing constraints to complete those changes ahead of the development work required for implementing CCA.

In accordance with SDG&E's CPUC-approved Electric Rule 27, no later than six months after a CCA files an implementation plan with the CPUC, SDG&E must be prepared to provide initial CCA implementation services. These services include a platform to facilitate electronic

[82] Adopted by Public Utilities Code section 366.1 and CPUC D.04-12-046 and D.05-12-041. Note Page 11 of D.04-12-046 states "…the costs of developing the CCA program's infrastructure should be assumed by all customers…"

communication between a CCA and SDG&E, in addition to ongoing support including SDG&E consolidated billing, meter reading, and other customer services. SDG&E recently received a request for data from a city and is aware of another CCA-eligible entity that has set aside funding for a CCA feasibility study. While it is difficult to predict if and when a city or county will ultimately implement CCA, SDG&E must be prepared nonetheless. Based on recent examples of CCAs becoming active in California, it seems entirely possible that a CCA could be implemented within two years after commencing its feasibility study. Thus, SDG&E believes that it is necessary to start the work on the upgrades to its systems now to be ready to serve a CCA within the six-month period discussed above. The forecast for the Customer Choice Aggregation ("CCA") project for 2014, 2015, and 2016 are $0, $2,950,000, and $0, respectively. The expected completion date for this project is Q4 2015. See capital workpapers of Stephen Mikovits (Ex. SDG&E-19-CWP-00831N).

8. Smart Meter IT Phase 3 Billing (Project #14843)

SDG&E installed a Smart Meter system throughout the San Diego and Orange County service areas to improve operational efficiencies, enhance customer service, and enable demand response. Approved by the CPUC on April 12, 2007, the Smart Meter Program has replaced and/or retrofitted approximately 1.4 million electric meters and 865,000 gas meters. The project established a two-way communications infrastructure, provided automated meter reading in place of manual meter reading, integrated customer information and billing systems, measured energy use in fifteen (15) minute or one hour intervals, provided integrated remote disconnect/reconnect capabilities and is in the process of providing a Home Area Network ("HAN"). SDG&E will implement the final phase of the Smart Meter billing system to support complex commercial/industrial accounts. Standby service, conjunctive billed, clean generation service and complex net meter accounts will be supported with this final phase. The project will allow approximately 600 Smart Meters to be installed for the complex commercial/industrial accounts. The forecast for the Smart Meter IT Phase 3 Billing project for 2014, 2015, and 2016 are $917,000, $0, and $0, respectively. The expected completion date for this project is Q4 2014. While these capital expenses are recovered through the Advanced Metering Infrastructure Balancing Account, pursuant to CPUC D.07-04-043 and as modified by D.11-03-042, these expenses are included herein for the purpose of determining SDG&E's rate base for its TY 2016 GRC. See capital workpapers of Stephen Mikovits (Ex. SDG&E-19-CWP-04843A).

D. Business Optimization

Table 60 below shows a summary of the requested capital expenditures related to business optimization.

TABLE 60

Business Optimization Capital Project Summary

GRID WP #	Capital Project #	Capital Project Name	2014 Total ($000)	2015 Total ($000)	TY2016 Total ($000)
00833U	13009	Smart Energy Advisor	$1,113	$0	$0
03849B	13012	Net Energy Metering Enhancement	$71	$0	$0
00833R	13013	Smart Meter Operation Center Network	$314	$0	$0
03851H	13031	Smart Meter Operations Center Exception Management (SMOC-EM)	$2,802	$508	$0
00831E	14005	Off But Registering (OBR) Enhancement	$0	$554	$0
00833F	14013	Centralized Calculation Engine	$2,071	$3,007	$0
00833G	14017	Smart Energy Advisor 2	$2,724	$0	$0
		Business Optimization	**$9,095**	**$4,069**	**$0**

1. Smart Energy Advisor (Project #13009)

The purpose of the Smart Energy Advisor desktop ("SEAd") project is to deliver a unified, process centric user interface for the CCC. This project will replace the old Genesys Agent Desktop with a new web-based SEAd desktop. The SEAd project will deliver additional features and technical capabilities including telephony integration, customer search, verification, customer relationship overview, and customer wrap up functions. Since 1997, the company's frontline ESS staff has been using a mainframe "green screen" to access customer information. This user interface requires multiple key strokes and screen views to address common customer questions and requests. The SEAd interface is a modern browser-based interface that consolidates multiple screens into one display and provides ESSs with a single sign-on to various mainframe and web applications. Furthermore, the project also provides for an upgrade to the online help system that the ESS use to research information and procedures to assist customers. This project is intended to improve ESS performance and efficiency with a unified user interface, advanced technology, and enhanced functionalities. The benefits of this project are to control average handle time ("AHT") increase by high bill, rate related, solar, and electric vehicle calls and to reduce overall AHT. This project will enable individual ESS to

handle more calls, and lower ESS cost of service. The project was implemented during Q2 2014. As with every project, there are post-go live activities. The forecast for the Smart Energy Advisor project for 2014, 2015, and 2016 are $1,113,000, $0, and $0, respectively. See section II.A.8.c.vi of my testimony for the O&M cost savings resulting from this project. See capital workpapers of Stephen Mikovits (Ex. SDG&E-19-CWP-00833U).

2. Net Energy Metering (Project #13012)

The standards and billing processes for Net Energy Metering ("NEM") are defined under CPUC Code 2827 and SDG&E's NEM tariff, Schedule NEM. NEM is currently the fastest growing program at SDG&E, averaging a 40% increase each year. The purpose of the NEM capital project is to address 30 known NEM billing system deficiencies and enhancements including bill calculation and display improvements, online processing improvements, and customer communication enhancements. Benefits of this project include reducing the need for hiring additional labor to support continued NEM growth. These enhancements will allow for only needing one incremental FTE in 2014, two incremental FTEs in 2015, and one incremental FTE in TY 2016. See section II.A.3.c.i of my testimony addressing the incremental positions for NEM growth. Without these enhancements, the incremental resource requirement would have been another 4.0 FTEs by TY 2016. Additional NEM project benefits include reduced internal maintenance costs associated with troubleshooting and manually resolving issues, reduced number of customer phone calls and inquiries for the Customer Contact Center, and improved overall customer experience and satisfaction due to effective communication and transparency. This project was mostly implemented in 2013. The forecast for the Net Energy Metering project for 2014, 2015, and 2016 are $71,000, $0, and $0, respectively. The expected completion date for this project is Q3 2014. See capital workpapers of Stephen Mikovits (Ex. SDG&E-19-CWP-03849B).

3. Smart Meter Operations Center Network (Project #13013)

The Smart Meter Operations Center ("SMOC") Network project is a multi-year, multi-phase project to establish a SMOC. The project will centralize operations and improve operational efficiency by applying visualization packages, advanced data analytics and reporting tools to aid in network monitoring, exception management, work management, and asset management to optimize network and data performance. This Phase I will deliver network monitoring and visualization by providing Smart Meter Operations Analysts with network

monitoring capabilities including search and notification features displayed in a geographic format to improve operational efficiencies. The operational efficiencies for this project were realized in base year 2013 and reflected in the forecast. The forecast for the Smart Meter Operations Center Network project for 2014, 2015, and 2016 are $314,000, $0, and $0, respectively. The expected completion date for this project is Q2 2014. See capital workpapers of Stephen Mikovits (Ex. SDG&E-19-CWP-00833R).

4. Smart Meter Operations Center – Exception Management (Project #13031)

The Smart Meter Operations Center - Exception Management ("SMOC-EM") is Phase II of the multi-year project to establish a SMOC. As part of Phase II of the project, SDG&E will deliver Smart Meter Operations' Analysts with results necessary to effectively resolve meter exceptions and network issues by use of event correlation and data analytics. SMOC-EM will deliver an information system integrated with multiple existing data sources to identify specific events or conditions resulting in exceptions or non-reporting meters while eliminating false-positive exceptions and pinpointing true exception meters and non-communicating network devices. The SMOC-EM system will combine essential data from multiple applications allowing expedient data analysis, troubleshooting, and work order management for accelerated results. Without this project the Smart Meter Operations Center, at current staffing levels, will not be capable of supporting interval data billing. As more customers migrate to interval billing, Smart Meter Operations would need to expand staffing in the neighborhood of 21 additional analysts to cover the additional work. The tools provided by the SMOC-EM project will improve operational efficiencies and automate processes to eliminate the need for additional staff and provide relief to the current reduced workforce. This project was mostly implemented in 2013. The forecast for the Smart Meter Operations Center – Exception Management project for 2014, 2015, and 2016 are $2,802,000, $508,000, and $0, respectively. The expected completion date for this project is Q1 2015. See section II.A.1.c.vii of my testimony for the O&M savings and costs resulting from this project. See capital workpapers of Stephen Mikovits (Ex. SDG&E-19-CWP-03851H).

5. Off But Registering ("OBR") Enhancement (Project #14005)

The purpose of the OBR Enhancement project is to automate the process of identifying and investigating situations where energy consumption is recorded on a company meter but system records indicate that the premise is inactive or OBR. The existing OBR process involves

many manual tasks such as reviewing reports, making phone calls, and initiating field visits to determine the cause for consumption and who is responsible. The project will allow for automated monitoring and identification of these scenarios, will enable automated notifications to be mailed and/or delivered to premises and decision logic to leverage remote disconnect when possible. The forecast for the Off But Registering ("OBR") project for 2014, 2015, and 2016 are $0, $554,000, and $0, respectively. The expected completion date for this project is Q3 2015. See section II.A.3.c.iv of my testimony for the O&M cost savings resulting from this project. See capital workpapers of Stephen Mikovits (Ex. SDG&E-19-CWP-00831E).

6. Centralized Calculation Engine (Project #14013)

The purpose of the Centralized Calculation Engine project is to implement a single engine to automate rate and complex billing calculations, utilizing consistent data sets from standard data sources, which can then be presented to internal users at will, in near real time, and at various portals. The development of this tool is anticipated to be foundational for use by other projects including the DRMS Project[83] and Electric Vehicle to Grid Project[84]. The first phase of this project will provide a single calculation engine to drive rate calculation, rate comparisons, modeling, pricing, and testing of rates. Currently there are multiple tools across different business units, both manual and automated, which utilize inconsistent data and methodologies to predict, model, and demonstrate rate scenarios and use cases. The need for this functionality will only increase as rates continually change and become more complex at a rapid pace. This tool will not replace the presentment of these calculations, but may become a data source for these calculations. The forecast for the Centralized Calculation Engine project for 2014, 2015, and 2016 are $2,071,000, $3,007,000, and $0, respectively. The expected completion date for this project is Q4 2015. See section II.A.3.c.iv of my testimony for the O&M cost savings resulting from this project. See capital workpapers of Stephen Mikovits (Ex. SDG&E-19-CWP-0833F).

7. Smart Energy Advisor 2 (Project #14017)

The purpose of the Smart Energy Advisor desktop ("SEAd 2") project is to implement credit workflow into the Smart Energy Advisor desktop. The enhancement will streamline credit

[83] DRMS will be the system for all demand response management. See Direct Testimony of Stephen Mikovits (Ex. SDG&E-19), workpaper 10875O.

[84] The Electric Vehicle to Grid Project would introduce an innovative hourly time-variant rate and associated grid-beneficial charging infrastructure for electric vehicles (EVs) as described in Application 14-04-014.

conversations and allow ESSs to process credit orders more efficiently and in less time. The project will also make other functional and user interface improvements to improve the effectiveness of the ESS. The forecast for the Smart Energy Advisor 2 project for 2014, 2015, and 2016 are $2,724,000, $0, and $0, respectively. The expected completion date for this project is Q4 TY 2014. See section II.A.8.c.vi of my testimony for the O&M cost savings resulting from this project. See capital workpapers of Stephen Mikovits (Ex. SDG&E-19-CWP-00833G).

E. Understanding Customers

Table 61 below shows a summary of the requested capital expenditures related to understanding our customers.

TABLE 61

Understanding Our Customers Capital Project Summary

GRID WP #	Capital Project #	Capital Project Name	2014 Total ($000)	2015 Total ($000)	TY2016 Total ($000)
00821A	13010	Customer Analytics System 2013	$2,562	$0	$0
03853B	14030	Customer Analytics System - Phase II	$0	$1,371	$1,339
03853C	16003	Customer Analytics System - III	$0	$0	$908
		Understanding Customers	**$2,562**	**$1,371**	**$2,247**

1. Customer Analytics System 2013 (Project #13010)

The purpose of the Customer Analytics System ("CAS") Phase 1 is to establish an analytical system within Customer Services to store and analyze customer data. The CAS system centralizes data from multiple systems to allow efficient analysis using current technologies. Phase 1 allows the company to target customers with relevant services and programs through the ESS in the CCC. Phase 1 also provides an Enterprise Analytics Roadmap to align analytics projects across SDG&E to achieve efficiencies. Currently, customer data is stored in multiple systems that have been developed historically to satisfy separate project requirements. Consolidating relevant information about customers is difficult and complex, and the company uses multiple methods to access and analyze the information. Additionally, when a customer contacts the company, the ESSs do not have the information necessary to present additional services or programs that the customer may be eligible for in an efficient manner. The CAS 2013 project is addressing these issues in two ways.

First, the Enterprise Analytics Roadmap evaluates the analytical systems across the company in support of SDG&E's "Smart Grid Deployment Plan - Integrated and Cost Cutting

Systems for Data Management and Analytics". The Roadmap aligns similar types of data, analytical methods, and tools to identify synergies suitable for this project. Second, the project will develop a Next Best Option analytical system using customer data obtained from multiple data sources within the company. Integrating this data and developing the analytics for the purpose of the Next Best Option will be completed for several programs and services. The Next Best Option will evaluate relevant information about customers and compare that to the programs and services that SDG&E offers. Analytics will be used to inform ESSs of the most relevant programs and services for a customer who calls the CCC. Company standards on information security and protecting customer privacy will be followed. The forecast for the Customer Analytics System 2013 project for 2014, 2015, and 2016 are $2,562,000, $0, and $0, respectively. The expected completion date for this project is Q3 2014. See capital workpapers of Stephen Mikovits (Ex. SDG&E-19-CWP-00821A).

2. Customer Analytics System Phase II (Project #14030)

The purpose of the CAS Phase II project is to gain further understanding of customers using data analytics to achieve efficiencies in customer outreach. CAS Phase II will introduce data governance and data quality processes to improve the accuracy of customer data, maximizing re-use across the company in customer outreach campaigns, new product & service development, and internal reporting. The project will integrate more data sources into the common data model and define definitions for common understanding of customer segments across multiple business groups. The CAS Phase II project will build upon the data integration and data model established in the CAS 2013 project. The result will be better understanding of customer segments, improved communications that align with customer needs, and a better customer experience. The forecast for the Customer Analytics System - Phase II project for 2014, 2015, and 2016 are $0, $1,371,000, and $1,339,000, respectively. The expected completion date for this project is Q4 TY 2016. See capital workpapers of Stephen Mikovits (Ex. SDG&E-19-CWP-03853B).

3. Customer Analytics System – III (Project #16003)

The purpose of the CAS Phase III project is to provide business users with information and analytic tools to optimize channel usage by customers and Customer Programs effectiveness. This will involve integrating further data sources from web, Branch Office, and IVR channels into the Enterprise Analytics System for channel optimization. It will also include integrating

further data sources from other databases and some 3rd parties for monitoring energy efficiency and demand response program effectiveness. The forecast for the Customer Analytics System - Phase III project for 2014, 2015, and 2016 are $0, $0, and $908,000, respectively. The expected completion date for this project is Q4 TY 2016. See capital workpapers of Stephen Mikovits (Ex. SDG&E-19-CWP-03853C).

VI. CONCLUSION

My SDG&E Customer Operations, Information, and Technologies O&M, Uncollectable Rate, and Capital project justifications were carefully developed and reviewed and represent a projection of the level of funding necessary to support SDG&E's organizational focus for this GRC term. The focus being on partnering with our customers as a trusted energy advisor by ensuring customers have choice, convenience, and control of how they interact with us and manage their energy use while continuing to control costs and maintain safe, efficient, effective, and reliable customer service.

This concludes my prepared direct testimony.

VII. WITNESS QUALIFICATIONS

My name is Bradley M. Baugh. I am employed by San Diego Gas & Electric Company ("SDG&E") as the Smart Pricing Program ("SPP") Manager. My business address is 8330 Century Park Court, San Diego, California 92123-1530. I am responsible for leading the technology and business analyst organization of the Smart Pricing Program. This includes deploying systems, tools, and business processes to assist residential and small business customers in understanding and monitoring their energy use and to compare and enroll in the new SPP rate plans. I was appointed to my current position in July of 2010. Prior to moving to the SPP, I was the Major Markets Billing Manager in the Customer Operations Department for SDG&E and held that position since January 2007. My primary responsibilities included managing the maintenance and billing of large commercial and industrial ("C&I") customers and specialized customers for special negotiated arrangements, qualifying facility power purchase agreements, distribution generation, complex electric interval data billed accounts, renewable energy, monthly gas balancing, direct access, and core aggregate transportation. Prior to assuming the Major Markets Billing Manager position, I was the Credit and Collections Policy and Strategy Manager in the SDG&E Customer Operations Department in 2006, and a Software Development Manager in the SDG&E Information Technology Customer Care Department from 2003 – 2005.

Prior to joining SDG&E in 2003, I was a Utility Industry Consultant with Sierra Systems Consulting Group from 2000 – 2002, a Customer Information Systems Architect with GS Lyon Consultants from 1998 – 2000, and a Utility Customer Care Practice Manager with Andersen Consulting (Accenture) from 1992 – 1997.

I have a Bachelor's of Science in Business Administration Degree (Finance & Banking), a Bachelor's of Science in Business Administration Degree (Economics), and a Bachelor's of Science in Accountancy Degree from the University of Missouri – Columbia in 1992.
I have previously submitted testimony before the California Public Utilities Commission.

APPENDIX A

Web/Social Media and Customer Contact Center Interaction Matrix

In compliance with SDG&E's 2012 GRC Decision (D.13-05-010), following is a matrix to describe SDG&E's web and social media communication channels, summarizing key benefits and explaining how these functions relate to the CCC.

COMPLIANCE WITH SDG&E 2012 GRC DECISION (D.13-05-010)			
Description	**Key Benefits**	**CCC Integration**	**Reference To Testimony/Workpapers**
Twitter			
Twitter is a quick and targeted way to communicate with customers including sending out information with a call of action for customers to go sdge.com for more information. Example communications include outage reporting, emergency situations and other targeted messaging. This channel is also used to respond to customer questions or concerns.	Twitter alerts SDG&E to problems quickly through social listening for faster resolution, alerts followers to potential issues and monitors conversation and sentiment to improve products and services. Twitter provides a channel for issue resolution for customers. SDG&E has initially focused on outage reporting and updates. In addition, Twitter is used in emergencies to provide situation updates. SDG&E's growth in Twitter has been well documented in a range of independent report and currently over 21,000 people follow SDG&E on twitter.	In 2013, the CCC started answering customer questions on Twitter during normal business hours (Monday through Friday, 8:00 AM to 5:00 PM). Billing and outage inquiries are the majority of customer inquiries. Typically only one "Twitter ESS" is available at a time. The ESS primary responsibility is answering phone calls and Twitter in between calls. In high-call instances, they do not respond to Twitter.	CCC Testimony section II.A.8 CCC Workpaper 1OO006 and 1OO007 Customer Communications Testimony section II.B.3 Customer Communications Workpaper 1OO010

Description	Key Benefits	CCC Integration	Reference to Testimony/Workpapers
Facebook			
Facebook is an interactive space for customers to better understand SDG&E customer programs, key initiatives and community events. Facebook is also used to share pictures and videos.	Facebook gives SDG&E a similar social customer service opportunity and customer benefits as Twitter**.** The company's following is much larger on Twitter. As Facebook following grows, so will SDG&E's social customer service on Facebook. SDG&E currently has over 1,800 people who have "liked" our Facebook page. Similar to Twitter, Facebook provides an avenue for customer service and direct customer contact, which we will be expanding over time.	Customer Communications monitors Facebook to communicate with customers. Customer Communications works with the CCC to answer customer-specific issues.	Customer Communications Testimony section II.B.3 Customer Communications Workpaper 1OO010
Google+			
Google+ is very similar to Facebook, oftentimes sharing the same type of information with customers.	Google+ gives SDG&E a similar social customer service opportunity and customer benefits as Twitter**.** The company's following is much larger on Twitter. As Google+ following grows, so will the SDG&E's social customer service on Google+. SDG&E has not devoted effort into proactively growing Google+ due to resource constraints. There are benefits to maintaining a presence on Google+ and given proper resourcing this channel might grow.	SDG&E does not receive any inquires via Google+.	Customer Communications Testimony section II.B.3 Customer Communications Workpaper 1OO010

Description	Key Benefits	CCC Integration	Reference to Testimony/Workpapers
You-Tube			
You-Tube is used to share videos with customers. Examples include emergency preparedness, program information and energy efficiency how-to videos.	You-Tube helps with organic search results when customers search on Google.com. In addition, SDG&E hosts all of our videos on You-Tube, including videos we make available on sdge.com. This helps keep costs manageable for bandwidth and network costs; including having to boost the amount of servers we have available to maintain reasonable speeds of our website. SDG&E's You-Tube currently holds over 150 videos, with the most popular (Reduce Your Use Day Rewards) having over 37,000 views. Video topics range from safety to program explanations to customer overviews. YouTube provides benefits of reducing costs for servers to host videos and also provides easy access to videos by customers.	Customer Communications is responsible for posting videos to You-Tube.	Customer Communications Testimony section II.B.3 Customer Communications Workpaper 1OO010
Instagram			
Instagram is used to share pictures, images and infographics.	Instagram gives customers another channel to communicate with SDG&E and helps to resolve issues quickly. SDG&E has begun to explore the possibilities of Instagram in the past year, posting photos of various events and scenes.	Customer Communications monitors Instagram to communicate with customers. Customer Communications works with the CCC to answer customer-specific issues.	Customer Communications Testimony section II.B.3 Customer Communications Workpaper 1OO010

Description	Key Benefits	CCC Integration	Reference to Testimony/Workpapers
LinkedIn			
LinkedIn is used to connect with prospects, customers, vendor partners and peers. We also use it for our major stakeholders (e.g. Trade Professionals) to provide a forum to learn more about SDG&E.	LinkedIn gives customers another channel to communicate with SDG&E and learn about new offerings. LinkedIn provides a social media connection to a more business oriented audience than other social media channels. SDG&E currently has a LinkedIn page and a hosted Discussion group for trade professionals. This channel allows for business to business communications and is incorporated into our overall business customer service approach. The discussion group is the first effect in the arena and will be the basis of the evaluation for future activity.	Customer Communications is responsible for posting information on LinkedIn**.**	Customer Communications Testimony section II.B.3 Customer Communications Workpaper 1OO010
Pinterest			
Pinterest is a social network that allows users to visually share, and discover new interests by posting (known as 'pinning' on Pinterest) images or videos to their own or others' boards (i.e. a collection of 'pins,' usually with a common theme) and browsing what other users have pinned.	Using a visual orientation, the social network is very much focused on pictures and allows SDG&E to visually share information about programs, offers and company information. Users can pin SDG&E information and share it on their Pinterest board.	Customer Communications is responsible for posting information on Pinterest**.**	Customer Communications Testimony section II.B.3 Customer Communications Workpaper 1OO010

Description	Key Benefits	CCC Integration	Reference to Testimony/Workpapers
Online Chat			
Online chat is available to customers Monday thru Friday, 8:00 a.m. to 5:00 p.m. This feature allows customers to interact with an ESS, answering questions that would normally be answered via a telephone conversation.	Online Chat provides a higher level of customer service by engaging customers across more channels. In the future SDG&E plans to roll out Live Chat on more web pages including the SDG&E homepage and landing pages. Live chat has been implemented as a pilot with a limited number of energy services specialists since the end of 2013 and has experienced steady growth with over 500 chats taking place a month.	The CCC generally staffs three ESS who are responsible for responding to online chat and email inquiries.	CCC Testimony section II.B.3 CCC Workpaper 1OO006 and 1OO007 Customer Communications Testimony section II.A.8 Customer Communications Workpaper 1OO010
Mobile			
SDG&E provides a mobile application ("app") for both iOS and Android users which offers many features such as bill pay, view energy usage, an outage map and outage reporting options, etc.	SDG&E's mobile app provides another online channel to deliver useful and relevant information to customers. The mobile app has had over 40,000 downloads since it was first launched in late 2012. New features added in 2013 were report and outage, view energy use history and ties into social media and video.	Customer Communications has an internal team focused on the development and management of the app.	Customer Communications Testimony section II.B.3 Customer Communications Workpaper 1OO010

Description	Key Benefits	CCC Integration	Reference to Testimony/Workpapers
sdge.com			
SDG&E's website (sdge.com) is a central communications hub. All communication channels have links to sdge.com to learn more about the company's programs, services and additional information.	sdge.com is the non-authenticated website that allows our customers to learn more about the company's programs and services and also to self-serve on a number of items. sdge.com typically has between 300,000 and 400,000 unique visits each month. This has seen steady growth since the initial launch of the site over a decade ago. Most popular pages include the outage map, the customer service section, and careers.	The CCC responds to customer inquiries through the "Contact Us" feature of the website. The CCC generally staffs three ESSs who are responsible for responding to online chat and email inquiries. Customer Communications manages the content contained within sdge.com.	CCC Testimony Section II.A.8 CCC Workpaper 1OO006 and 1OO007 Customer Communications Testimony Section II.B.3 Customer Communications Workpaper 1OO010
My Account			
My Account is a secure transactional website for customers.	My Account is the authenticated website where customers can sign-in to pay their bill, view their energy use and conduct various self service functions. Recently there have been additional services that customers can undertake within the website including detailed look at their energy use. My Account gets similar monthly traffic as sdge.com, with around 400,000 unique visitors a month.	The CCC supports issues customers may have with My Account, including password and User ID issues (logins), as well as other issues they may have as they navigate the site. Customer Communications manages the content contained within My Account.	CCC Testimony section II.A.8 CCC Workpaper 1OO006 and 1OO007 Customer Communications Testimony section II.B.3 Customer Communications Workpaper 1OO010

APPENDIX B

GLOSSARY OF TERMS

AB: Assembly Bill

ADA: Americans with Disabilities Act

AE: Account Executive

AHT: Average Handle Time

AMO: Advanced Metering Operations

APL: Authorized Payment Location

APP: Application

BCAP: Biennial Cost Allocation Proceeding

BOS: Billing Operations Support

CAISO: California Independent System Operator

CARE: California Alternate Rates for Energy

CAS: Customer Analytics System

CAT: Core Aggregation Transportation

CCA: Community Choice Aggregation

CCC: Customer Contact Center

CCE: Centralized Calculation Engine

CE: Collection Engine

CEN: Customer Energy Network

C&I: Commercial and Industrial

CO: Carbon Monoxide

CP&P: Customer Programs and Projects

CPUC: California Public Utilities Commission

CRM: Customer Relationship Management

CSF: Customer Service Field

CS PMO: Customer Services Program Management Office

CSR: Customer Service Representative

D: Decision

DA: Direct Access

DASMMD: Direct Access Standards for Metering and Meter Data

DASR: Direct Access Service Request

DG: Distributed Generation

DRMS: Demand Response Management System

DRP: Demand Response Program

EDI: Electronic Eata Interchange

EBPP: Electronic Bill Presentment and Payment

EME: Electric Metering Engineering

EMT: Energy Management Tool

EMO: Electric Metering Operations

ESA: Energy Savings Assistance

ESP: Energy Service Provider

ESS: Energy Services Specialist

EV: Electric Vehicle

FTE: Full-Time Employee

HAN: Home Area Network

IT: Information Technology

IDR: Interval Data Recorder

IVR: Interactive Voice Response

LIHEAP: Low Income Home Energy Assistance Program

LOS: Level of Service

MAAUI: My Account Accessibility Usability Improvement

MDMS: Meter Data Management System

MNR: Meter and Network Reliability

MOU: Memorandum of Understanding

MRP: Meter Revenue Protection

NGAT: Natural Gas Appliance Testing

NEM: Net Energy Metering

OBR: Off But Registering

O&M: Operations and Maintenance

ORS: Operation Reporting System

PEP: Payment Entry Processing

PEV: Plug-in electric vehicle

PTR: Peak Time Rebate

POS ID: Positive Identification

QA: Quality Assurance

RCS: Residential Customer Services

RDW: Rate Design Window

RYU: Reduce Your Use

SCG: Southern California Gas Company

SDG&E: San Diego Gas and Electric Company

SEAd: Smart Energy Advisor desktop

SMB: Small and Medium Business

SMDO: Smart Meter Data Operations

SMOC: Smart Meter Operations Center

SMOC-EM: Smart Meter Operations Center - Exception Management

SMTS: Smart Meter Technical Support

SOCALGAS: Southern California Gas Company

SOX: Sarbanes Oxley

SPP: Smart Pricing Program

TY: Test Year

USPS: United States Postal Service

APPENDIX C

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 Kenneth E. Schiermeyer and Rose-Marie Payan

Electric and Gas Customer Sales

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

1. Please provide copies of relevant testimony sections from other Sempra Utility Witness exhibits that Customer Services references in their own Exhibits (e.g. 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[1]
  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[2]
  a. Section II.D.1.b.i. Expansion of the Operator Qualification Program; pages GOM-53 to GOM-54

[1] Ex. SCG-04 (Gas Distribution) witness Gina Orozco-Mejia has been replaced by Frank Ayala. This change will be reflected in the Application.
[2] Ex. SDG&E-04 (Gas Distribution) witness Gina Orozco-Mejia has been replaced by Frank Ayala. This change will be reflected in the Application.

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SDG&E-SoCalGas Response (continued):

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

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.

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.