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REVISED

SDG&E

DIRECT TESTIMONY OF CAROLINE A. WINN AND SCOTT D. DRURY

(POLICY OVERVIEW)

March 2015

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

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REVISED SDG&E DIRECT TESTIMONY OF CAROLINE A. WINN AND SCOTT D. DRURY (POLICY OVERVIEW)

I. INTRODUCTION

As the Chief Energy Delivery Officer and Chief Energy Supply Officer of San Diego Gas & Electric Company ("SDG&E"), respectively, Caroline A. Winn and Scott D. Drury assume the witnessing role for the SDG&E Policy Overview testimony from Steven D. Davis. Their positions reflect a recent re-organization at SDG&E, and their role as policy witnesses leverages their responsibilities as chief officers representing the company from a supply and delivery perspective. Aside from reflecting this witness change, the contents of this testimony have not changed from the version tendered in March 2015.

This exhibit provides overarching policy testimony for SDG&E and generally describes how the proposals and requests SDG&E has included in its 2016 General Rate Case ("GRC") Application reflect our strong commitment to delivering safe and reliable gas and electric service to customers at reasonable rates, through a safety-first culture. Indeed, although the energy industry is changing, safety, reliability and customer service remain the foundation of our business at SDG&E. Moreover, we view the changing industry as an opportunity for every employee, at every level, to make new and meaningful differences in the success of our business by being:

- **Customer focused**: consider the customer in all aspects of decision-making;
- **Strong financial stewards**: effectively manage financial resources and helping to reduce rates;
- **Innovators**: great ideas leading to improved core business and customer outcomes; and
- **High performers**: expect everyone to perform at a high level to support the team.

California's energy policy is constantly evolving and is currently characterized by an increasing focus on public safety, affordability, energy efficiency and efforts to reduce carbon emissions. SDG&E is adapting to and supporting this changing landscape while remaining committed to achieving its goals with respect to safety, reliability, and customer service. This commitment is reflected in the following awards and recognition:

- SDG&E has been ranked "Best in the West" in reliability by PA Consulting Group, earning their regional ReliabilityOne award for eight consecutive years, beginning in 2005;

- 2012 Exemplary Energy Efficiency Program Award from the American Council for an Energy Efficient Economy;
- 2012 KITE (Knowledge, Innovation, Technology, and Excellence) Award for Customer Service Leader of the Year from Energy Central's Intelligent Utility Magazine;
- 2012 Best Practices Award for Utility Customer Service - Certificate of Excellence from Chartwell for the Trusted Energy Advisor Program;
- 2012 Best Practices Award for Utility Marketing - Certificate of Excellence from Chartwell for the Smart Energy Solutions Program;
- 2012 ServiceOne Award from PA Consulting Group for Excellence in Customer Service;
- 2012 "Corporation of the Year" for Diversity from the San Diego Regional Supplier Diversity Council;
- 2013 Top Ten Best North American Utilities Award for Smart Grid Development from Greentech Media; and
- 2014 The Greenlining Institute gives SDG&E an "A" in its Supplier Diversity Report Card Report.

SDG&E is proud of the recognition we have received, yet we know that our focus can never wane, and we are always seeking ways to improve as the industry evolves. One area that has seen significant changes is public safety. In the aftermath of the San Bruno tragedy, the gas industry, legislators, regulators, and stakeholders are fundamentally re-examining current laws, regulations and industry practices to see whether changes can be made to enhance the safety of our industry. We embrace these efforts and have been working with the California Public Utilities Commission ("Commission" or "CPUC"), U.S. Department of Transportation/Pipeline and Hazardous Materials Safety Administration ("DOT/PHMSA"), research groups such as the Gas Technology Institute ("GTI") and Pipeline Research Council International ("PRCI"), and others in the industry to make changes in a sensible way.

Other considerations are specifically regional in nature, such as the risk of operating an electric utility in an area that is susceptible to catastrophic wildfires. As described below and in the Electric Distribution – Capital testimony of John Jenkins (Ex. SDG&E-09-R) and Electric Distribution – O&M testimony of Jonathan Woldemariam (Ex. SDG&E-10-R), SDG&E is aggressively seeking ways to continue to improve our electric distribution system in high fire risk areas, including proposals to reduce such risk by hardening overhead distribution infrastructure in the backcountry, continuing our wood-to-steel pole replacement program, going above and beyond compliance requirements, modifying our operations during high risk periods, and undergrounding overhead lines in strategic locations.

In addition, California's energy policy has been increasingly focused on clean energy, greenhouse gas emissions and other environmental issues over the past decade. SDG&E has been at the forefront of these changes, receiving recognition for our leadership. In addition to the awards listed above, we are proud that we have expanded the renewable energy component of SDG&E's retail load from 3.7% in 2003 to 23.6% in 2013, the largest rate of increase in the State. SDG&E was also the first major investor-owned utility ("IOU") to commit to California's 33% renewable energy supply target for 2020.

Investing in technologies and services that help advance the use of clean energy by our customers is one of SDG&E's goals. These efforts, for example, have helped facilitate the growth of electric vehicle use among our customers, and as of June of 2014, there are approximately 8,400 electric vehicles in San Diego County. We have also seen rapid growth in the number of customers installing solar photovoltaic generation (representing approximately 254 megawatts in nameplate capacity). As of April of 2014, approximately 36,450 customers have installed rooftop solar systems and are using Net Energy Metering ("NEM"). Over the last five years, SDG&E has seen a consistent growth rate of 40% per year in the number of total customers taking service under NEM. In 2013, SDG&E received twice the number of new applications for NEM service than in 2012. SDG&E expects this same level of rapid growth to continue and, for purposes of this GRC, is conservatively projecting continued growth of 40% for 2016 thru 2018, but anticipates that it could be higher. As described below and in the Electric Distribution - Capital testimony of Mr. Jenkins (Ex. SDG&E-09-R), rising electric vehicle use and distributed generation can change load patterns, reverse the traditional flow of power, and impact available capacity and system protection, which requires system upgrades such as grid management tools. These changes also impact customer service operations. For example, as described below and in the Customer Service testimony of Brad Baugh (Ex. SDG&E-14), the rise in NEM customers, whose billing is unique and variable, is putting additional demands on our billing operations.

As a result of this evolving landscape, we have examined the specific changes we expect to occur over the term of this GRC and propose corresponding investments in:

- Safety and Reliability: The safety of our customers, employees and the communities we serve is a top priority of SDG&E, and we are an industry leader in delivering reliable gas and electric service to our customers. Our GRC proposals will allow us to continue to invest in our gas and electric systems so as to enhance safety, reliability, and security and thereby mitigate risks that could impact our customers, employees, and systems.

- Customer Service: Providing valuable service to our customers is a key focus. We remain committed to meeting the needs of approximately 3.5 million consumers who are increasingly more diverse in their service demands by, among other things, empowering customers with information and tools to better manage their usage of gas and electricity.
- Risk Management: SDG&E is focused on taking steps to enhance our policies and practices to better manage risk and systemically demonstrate our continuously evolving focus on risk mitigation. For example, as noted above, SDG&E has focused on hardening our system against fire threats.
- Environmental Stewardship: We will continue to provide our services in an ecologically responsible manner, complying with an increasing number of regulations and requirements, factoring environmental impacts in our project planning, and investing in technologies that advance clean energy for our customers and the environment.
- Supplier Diversity: We will continue to invest in efforts and programs that enhance supplier diversity, including particular focus on helping our diverse small business suppliers.

This GRC also reflects SDG&E's continued effort to be cost-efficient and forward-thinking, such that we are well positioned to consistently deliver safe and reliable gas and electric service to our customers at reasonable rates. SDG&E has developed a post-test year ratemaking mechanism that will provide us with sufficient revenues to meet the challenges we expect to face beyond the 2016 test year, while maintaining incentives to continue searching for operational efficiencies.

II. OVERVIEW OF GRC REQUEST

Our GRC request reflects SDG&E's forecast of revenues needed to continue delivering safe and reliable gas and electric service at reasonable rates and enhance the integrity of our system, while meeting the new challenges we expect to face in the test and post-test years. The projected revenue requirement, rate increases, and expected residential bill impacts from our GRC proposal are discussed in more detail in the Summary of Earnings testimony of Khai Nguyen (Ex. SDG&E-36-R) and the Revenues at Present & Proposed Rates testimony of Cynthia Fang (Electric, Ex. SDG&E-39-R) and Gary Lenart (Gas, Ex. SDG&E-40-R). Post-Test Year testimony is sponsored by Sandra Hrna (Ex. SDG&E-37-R). The following is a brief summary.

A. Test Year 2016 Revenue Requirement

SDG&E's GRC Application requests that the Commission authorize a combined $1.905 billion revenue requirement ($325 million gas and $1.580 billion electric), to be effective January 1, 2016. If approved, this revenue requirement would be an increase of $111 million over the authorized 2015 revenue requirement. It should be noted that consistent with the direction given to Southern California Edison ("SCE") as the majority owner of the San Onofre Nuclear Generating Station ("SONGS") in SCE's pending GRC (A.13-11-003), SDG&E has removed most SONGS-related costs from this GRC

and intends to address ongoing decommissioning costs in other regulatory proceedings before the Commission, as appropriate (see SONGS testimony of Mike De Marco, Ex. SDG&E-12-R).

When the impact of commodity costs and other ratemaking items such as regulatory account balances are included, these increases result in a 2016 system average electric rate revenue decrease of $38.2 million (-1.0%) and a system average gas rate revenue decrease of $5 million (or -0.8%), when compared to the authorized revenue requirement for 2015.

B. Post Test Year Ratemaking

SDG&E's post-test year proposal focuses on the major cost drivers impacting the company. The mechanism includes attrition for two components: operating expenses (including labor wage increases, non-labor costs, and medical expenses) and costs associated with post-test year capital additions. Escalation indices that more closely align with SDG&E's specific cost drivers are recommended for the operating expenses. The capital addition component of the mechanism uses a seven-year average of additions as a basis for the attrition needed to support SDG&E. The overall mechanism provides a fair opportunity for SDG&E to earn the authorized rate of return and is balanced with effective cost management and ongoing productivity improvements.

C. Bill Impacts

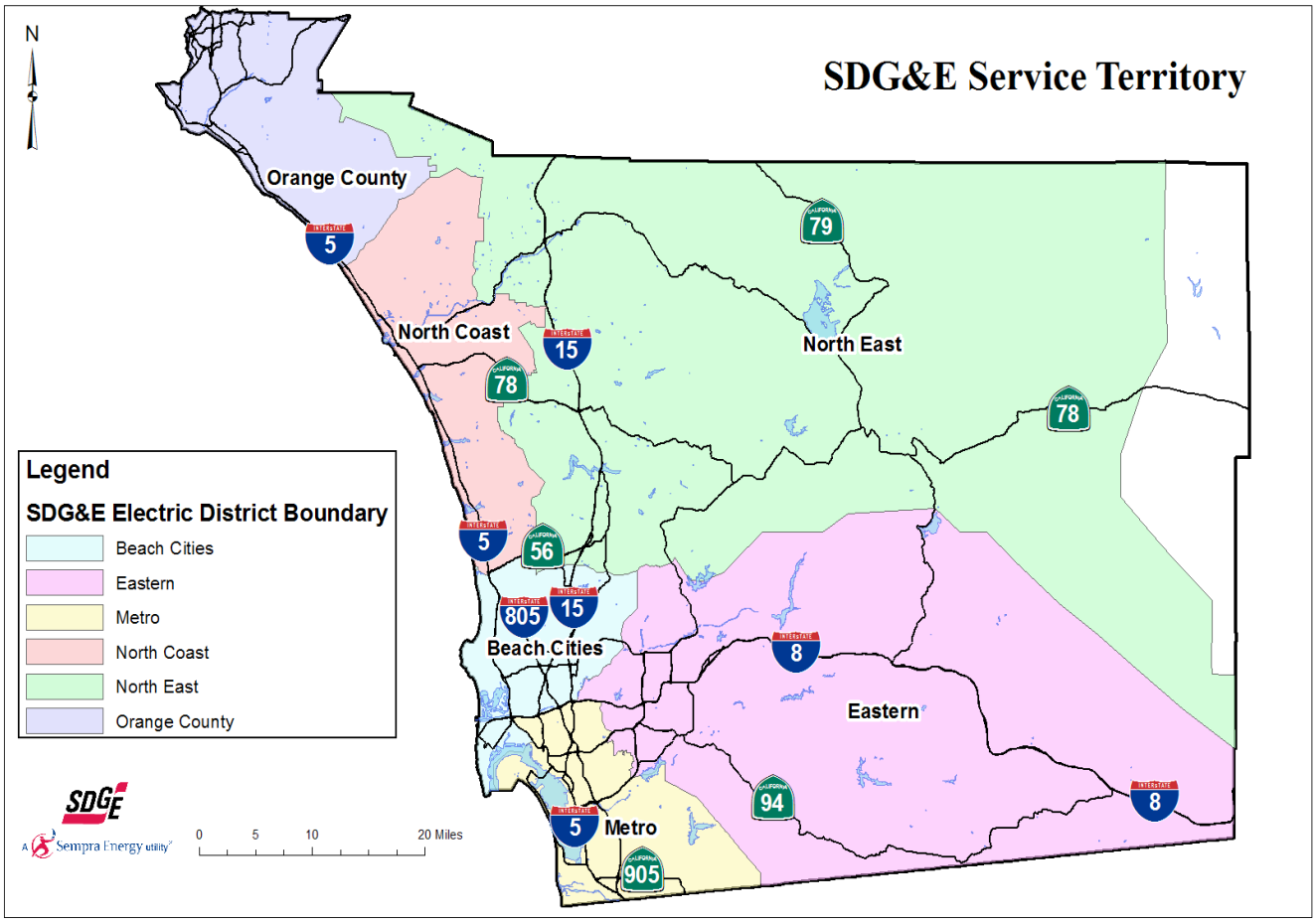
If the 2016 revenue requirement identified above is approved by the Commission, a typical electric residential customer[1] will see a monthly bill decrease of $0.53 (-0.5%), as compared to authorized rates for 2015. For gas customers, a typical residential customer[2] will see a monthly bill decrease of $0.38 (or -0.9%), as compared to authorized rates for 2015. On a combined electric and gas bill, a typical residential customer will see a monthly bill decrease of $0.91 (-0.7%), as compared to authorized rates for 2015.

III. OVERVIEW OF OPERATIONS

SDG&E operates and maintains a gas and electric distribution system that provides safe and reliable energy to approximately 3.5 million consumers. As shown in Figure 1, the SDG&E service territory spans more than 4,100 square miles from the California-Mexico border to southern Orange County.

[1] Inland customer winter usage of 500 kWh.
[2] 28 therms per month.

Figure 1: SDG&E Service Territory



Gas Distribution

SDG&E's commitment to safety and reliability extends to our gas distribution system, which consists of a network of approximately 14,600 miles of interconnected gas "mains" and "services." These mains and services are constructed of both steel and plastic materials in varying diameters, and are located in most urban and suburban streets within SDG&E's service territory. The primary function of this distribution pipeline network is to deliver safe and reliable natural gas from SDG&E's transmission system via approximately 865,300 gas meters. SDG&E maintains a network of 8,000 miles of gas mains operated at either high-pressure (over 60 pounds per square inch ["psi"]) or medium-pressure (60 psi and below). This system includes numerous valves capable of isolating the total system into smaller areas for operation, construction and emergency purposes. Through regulator stations located throughout the system, SDG&E maintains gas pressure and regulates the distribution system to provide adequate capacity to meet customer needs. The final section of this network is composed of approximately 6,600 miles of gas service lines that connect the high- and medium-

pressure mains to each customer meter.

Electric Distribution

SDG&E safely operates and maintains an electric distribution system that reliably serves approximately 1.4 million meters. SDG&E's system includes 287 distribution substations, 1,016 distribution circuits, roughly 230,000 poles, 10,290 miles of underground systems, 6,569 miles of overhead systems, and various other pieces of distribution equipment. There is an average of 1,375 customers per circuit with approximately 450,000 trees in the proximity of SDG&E overhead lines maintained through SDG&E's extensive vegetation management program. Approximately 60% of our system is underground, particularly in the urban and suburban areas, a ratio which is much larger than that of the other IOUs. The primary distribution voltage is predominantly 12 kV, with some large areas of 4 kV, which are being converted through attrition and as maintenance conditions warrant. The service territory includes a geographic mixture of urban and rural communities, consisting of 26 cities, two counties and 15 major military facilities. These distribution facilities can be found in geographic locations ranging from bay and coastal developments to inland valleys, mountain and desert communities.

Electric Generation/Electric and Fuel Procurement

SDG&E owns and operates two combined-cycle generating facilities (Palomar Energy Center, located in Escondido, CA and Desert Star Energy Center, located in Boulder City, NV) and two peaking plants (Miramar Energy Facility, located in San Diego, CA and Cuyamaca Peak Energy Plant, located in El Cajon, CA). Together, the plants are capable of providing power to approximately 750,000 homes in the region.

The Electric and Fuel Procurement Department ("E&FP") is responsible for procuring, managing, planning and administrating SDG&E's electric and fuel supply for bundled commodity customers. Bundled commodity customers are those customers that buy the commodity of electricity from SDG&E. Annually, since 2011, the bundled commodity costs have been over $1 billion dollars. The procurement and administration activities conducted by the E&FP department allow SDG&E to plan for and acquire resources so that least-cost supply is available when needed by commodity customers. As noted above, we have been able to grow the renewable energy component of SDG&E's retail load from 3.7% in 2003 to 23.6% in 2013, the largest rate of increase in the state.

Customer Service

SDG&E serves a population of approximately 3.5 million consumers and (at year-end 2013) is characterized by a mix of approximately 1.25 million residential, 150,000 commercial and industrial,

and 6,000 street light meters. We provide safe, reliable and efficient customer service to our customers via the following working groups:

- Our Customer Services Field organization consists primarily of field technicians who perform services at customer premises, including establishing gas and electric service, conducting appliance checks, investigating reports of gas leaks, shutting off and restoring gas service for fumigation, completing meter and regulator changes and other related field services for customers. Customer Service Field activities are impacted by Smart Meter (reducing the need to field orders for several order types), customer growth, customer turnover, variations in weather and other factors. Field technicians work from five different operating base locations that are dispersed throughout SDG&E's service territory, which spans across all of San Diego County and a portion of Orange County. It is anticipated that field technicians will complete over 300,000 orders at customer premises each year.
- Our Customer Contact Centers handle over 2.7 million telephone customer contacts per year. SDG&E has two call centers with approximately 164 energy services specialists.
- Our Branch Offices ("BOs") and Authorized Payment Locations ("APLs") provide in-person bill payment services in seven different BO locations and over 75 contracted APLs. SDG&E BOs and APLs processed over 1.1 million payments in 2013.
- Customer Services Back-Office functions continue to become more complex with enhanced rate options, credit and collections processes, compliance with regulatory and governmental agencies and systems support for expanded customer self-service options.
- Our Customer Information groups continue to use research and data analytics to enhance its customer outreach, communication, and education efforts to engage customers in understanding their options and choices.

IV. OPERATIONAL FOCUS

The following is provided as a general description, from a high-level policy perspective, of SDG&E's operational focus as it relates to safety, reliability, customer service, risk management, cyber and physical security, environmental stewardship, supplier diversity and operational efficiency. More details are provided in the testimony and workpapers of individual witnesses.

A. Safety

We view safety as a three-pronged effort that requires vigilant attention to (1) employee safety, (2) customer/public safety, and (3) the safety of our gas and electric delivery systems. This focus is

driven by our strong safety culture at SDG&E. Our tradition of providing safe and reliable service spans more than 131 years of our company's history and is summarized in our *Commitment to Safety* statement, which is endorsed by our entire senior management team:

> San Diego Gas & Electric Company's longstanding commitment to safety focuses on three primary areas – employee safety, customer safety and public safety. This safety focus is embedded in what we do and is the foundation for who we are – from initial employee training, to the installation, operation and maintenance of our utility infrastructure, and to our commitment to provide safe and reliable service to our customers.

In 2013, our efforts to maintain a strong safety-first culture were subjected to an independent assessment by the National Safety Council, a credible and independent third party non-profit organization and a leading advocate for safety. The evaluation was based on an employee-perceptions study and resulted in a report indicating that SDG&E's safety culture compares very favorably to those of peer utilities and companies.[3] Indeed, in comparison to over 580 companies, SDG&E's overall safety barometer score was in the 93rd percentile (top 7% of companies surveyed). The overall benchmark results were very positive and encouraging, and a number of results stand out:

- 94th percentile for management including safety in job promotion reviews;
- 94th percentile for safety standard level relative to production standard level;
- 93rd percentile for supervisors behaving in accord with safe job procedures;
- 93rd percentile for management setting a positive safety example;
- 93rd percentile for priority of safety issues relative to production;
- 93rd percentile for belief that management does more than law requires;
- 92nd percentile for employees believing that their actions can protect co-workers;
- 92nd percentile for belief that management is sincere in safety efforts;
- 92nd percentile for presence of employees well-trained in emergency practices;
- 91st percentile for supervisors enforcing safe job procedures;
- 91st percentile for management setting annual safety goals; and
- 91st percentile for condition of employee morale.

Vital to SDG&E's efforts to continue to maintain and expand our safety achievements is adequate funding for support services (*e.g.*, Fleet, Real Estate, Land, Facilities) as well as for employee training,

[3] *2013 Safety Barometer Survey Results, San Diego Gas & Electric Company*, National Safety Council -March 2013.

compensation and benefits and human resources. It takes a highly skilled workforce, as well as mobility and infrastructure, to execute our ambitious safety expectations and efforts.

Although our continued focus on safety is embraced and supported by all organizations within our company, there are several areas warranting special attention, including gas and electric operations, which are outlined below.

1. Gas Operations

SDG&E has a strong track record in gas safety that reflects the safety-first culture that is embedded in our company culture at every level. While we are proud of our safety record, we know there are always opportunities to enhance the overall safety of our pipeline system and infrastructure. To maintain our strong track record into the future, we cannot become complacent. We must always strive to do better by applying forward-looking safety strategies, and challenge ourselves to be even more diligent in maintaining the safety of our natural gas system. Our aim is to continuously drive process improvements throughout our pipeline system and operations, to meet or exceed state and federal safety regulations, and to stay abreast of industry leading practices.

In this GRC, we seek authorized funding for the maintenance, operation, and replacement of gas infrastructure necessary to maintain our commitment in this area. As discussed in the Gas Distribution testimony of Frank Ayala (Ex. SDG&E-04), for example, we propose funding to continue to survey our gas distribution system for leaks; repair identified main and service line leaks; locate and mark facilities to avoid third party damage; and replace or abandon pipeline facilities (e.g., mains, services, regulating and metering equipment, cathodic protection systems, and electronic equipment) that have reached the end of their useful lives or are experiencing deterioration. Moreover, as discussed in the Pipeline Integrity for Transmission and Distribution testimony of Maria Martinez (Ex. SDG&E-07), SDG&E has furthered its safety goals by retrofitting transmission pipelines in order to utilize in-line inspection technology, with 61% of the integrated Southern California Gas Company ("SoCalGas")/SDG&E gas transmission system (~2,200 miles) capable of being assessed using in-line inspection tools. Although the cost of retrofitting a pipeline to allow for in-line inspection may be higher than other alternative assessment methods, the information obtained through an in-line inspection about the condition of the pipeline is extensive and can aid in analyzing time dependent threats such as external and internal corrosion. We propose to continue to increase our ability to inspect transmission pipelines using in-line inspection methods, even in non-High Consequence Areas that are not subject to the prescriptive assessment requirements established for transmission pipelines under federal and state regulations. Efforts such as this to exceed minimum system safety

requirements demonstrate our strong commitment to continuous improvement and enhanced emphasis on proactive measures that are intended to enhance the safety of our natural gas transmission and distribution systems for our customers and the communities we serve.

Additionally, as SDG&E continues to invest in our employees, we seek funding for additional training, qualification and upgraded training facilities. Similarly, as discussed in the Gas Transmission testimony of John L. Dagg (Ex. SDG&E-05) and the Gas Engineering testimony of Raymond K. Stanford (SDG&E-06), we propose funding consistent with historic levels to perform annual leak surveys of all SDG&E transmission pipeline facilities, conduct surveillance of third-party construction activities around the vicinity of buried pipeline facilities, perform locate-and-mark services to identify the location of buried facilities, and proactively replace or abandon aging pipeline facilities. These types of day-to-day system maintenance and replacement activities are essential to achieving the continued safe operation of our gas distribution and transmission facilities.

2. Electric Operations

Safety is also a key driver in our approach to electric operations, as demonstrated by our strong track record in this area. Fire risk is particularly heightened in areas of our service territory characterized by inland valleys and mountainous areas with smaller communities, lower density development and significant wildland areas. Many of these areas are served by an older overhead electric distribution system (comprised mainly of wooden poles) that is subject to the most extreme weather in the service territory. Due to the 2007 wildfires, it became increasingly evident that the safety and operational challenges brought on by the extreme Santa Ana wind conditions in these areas had to be dealt with as a top priority. Fire risk is extremely high during such conditions, and the consequences of a fire can be catastrophic to the community and cause severe damage and disruption to the electric distribution system.

Accordingly, SDG&E has focused on and is continuing to aggressively seek ways to improve the operations and maintenance of the electric distribution system in these high fire threat zone areas, especially as it relates to high fire risk Santa Ana conditions. Significant progress has already been made. As described in the Electric Distribution – Capital testimony of Mr. Jenkins (Ex. SDG&E-09-R) and the Electric Distribution – O&M testimony Mr. Woldemariam (Ex. SDG&E-10-R), SDG&E is proposing to make additional significant capital investments to further reduce wildfire risk and enhance safety by hardening overhead distribution infrastructure in the backcountry, continuing our wood-to-steel pole replacement program, enhancing inspections above and beyond compliance requirements, modifying our operations during high risk periods, and undergrounding overhead lines

in strategic locations. In order to continue enhancing the safety of the community and maintain the integrity of the electric distribution system, SDG&E seeks the resources necessary to meet these fire-related challenges and implement steps that will result in further progress toward achieving a more fire-safe system, which is a common goal shared by employees, regulators, customers and the public at large.

With respect to safety training, SDG&E has had a Behavior Based Safety ("BBS") program since 2002. As described in the testimony of Mr. Woldemariam (Ex. SDG&E-10-R), the BBS program changes individual safety behaviors by applying principles of positive reinforcement and giving immediate feedback. Behavior management and culture management are necessary safety tools and essential for the electric division to make gains in safety performance and to help ensure that employees return home safely to their families each day. SDG&E has had great success with this program and plans to continue the development of its employee safety leaders through the implementation of additional analytical tools available from BBS to establish and maintain a strong safety-focused culture.

B. Reliability

SDG&E is an industry leader in delivering reliable power to our customers, and the continued reliability of the gas and electric systems is a primary focus of our operations. As described below, SDG&E's forecasted activities in this area are based on our experience with maintaining and/or modernizing infrastructure, leveraging technology, and planning for the region's future energy needs.

1. Gas Operations

SDG&E is committed to providing safe and reliable natural gas service at a reasonable cost. In order to maintain our strong reliability track record, SDG&E proposes O&M and Capital spending consistent with historic trends to help mitigate the risk of customer outages or loss of service. As discussed in the testimony Mr. Ayala (Ex. SDG&E-04), areas of routine spending that affect reliability in Gas Distribution include: locate and mark; leak survey; leak repairs; measurement and regulation; main, service, and regulator station replacements; and pressure betterment installations. Locating and marking gas facilities is completed to avoid third party dig-ins that may interrupt gas service to our customers. Through leak surveys, leaks are identified so that they can be classified and scheduled for leak repair before they affect the safety or reliability of the main or service line. Measurement and regulation activities include inspecting and maintaining measurement and regulation equipment, and repairing or replacing the equipment, as necessary. Through pipeline and regulator station replacements, infrastructure that is aging, corroding, or defective is proactively replaced before it can

impact gas reliability. Pressure betterment installations are performed when there is insufficient capacity or pressure to meet load growth, in order to maintain system reliability and service to all customers. Similar system maintenance and pipeline replacement activities are described in our Gas Transmission (Mr. Dagg, Ex. SDG&E-05) and Gas Engineering (Mr. Stanford, Ex. SDG&E-06) testimony.

2. Electric Operations

SDG&E has been recognized as being an industry leader for its very reliable electric system. In addition to the "Best in the West" awards for eight consecutive years since 2005, as noted above, SDG&E also received PA Consulting Group's National Award for Outstanding Reliability Performance in 2010. In order to fulfill our strong commitment to delivering safe and reliable power to our customers, SDG&E must continue to adapt to California's changing energy landscape. As noted above, the electric industry is undergoing changes unlike any period in its history, including a significant expansion of distributed generation and growth in the use of electric vehicles. SDG&E is striving to meet this challenge by investing in technologies that advance clean energy for our customers and the environment.

It is important to note, however, that newer technologies can change loading patterns, reverse the traditional flow of power, and impact available capacity and system protection. Accordingly, as described by Mr. Jenkins (Ex. SDG&E-09-R), SDG&E is proposing to meet these challenges by seeking funding for grid sensing and situational awareness technologies and grid management tools to help address the complexities associated with integrating distributed energy resources and electric vehicles. These projects will improve SDG&E's ability to safely and reliably mitigate voltage fluctuations resulting from intermittent power generation and incorporate the increasing load of charging electric vehicles. These projects will also improve the detection and isolation of faults, immediately restore service to as many customers as possible, and provide information about outages in real-time. SDG&E also plans to enhance reliability for our customers by making investments to reduce the frequency and duration of outages, particularly in the more inland areas, including funding to replace underground cables that have failed or are likely to fail based on the electric-reliability-circuit analysis or the cable failure data.

C. Customer Service

SDG&E understands that for customers to make wise decisions regarding their energy use they must have access to information about their energy consumption, energy prices, and tools to manage and control their use. SDG&E's customers encompass a wide range of market segments with varying

levels of market knowledge understanding and communications needs. Accordingly, as reflected in the Customer Service testimony of Mr. Baugh (Ex. SDG&E-14), we are expanding and enhancing how SDG&E delivers solutions to our customers through targeted channels using research and data analytics. We make 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 become our customers' "Trusted Energy Advisor" by offering integrated and personalized solutions, 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.

SDG&E is also dedicated to providing customers with more choices in their energy pricing plans and program options that will allow them to select the best rate that meets their lifestyle or business needs. The Smart Pricing Program ("SPP") was a major step forward in that it offers residential and small business customers new time varying rate options, giving them more choice of when they use and how they pay for energy. In addition to SPP, SDG&E has several proposals targeted at preparing residential customers for rate reform and the transition to time-of-use pricing plans. For example, SDG&E intends to conduct an extensive outreach and education campaign as it is critical that residential customers be prepared and informed of changes to their pricing options.

The NEM option available to customers is also changing the way we provide service. As noted above, the growth in NEM customers has been significant and NEM billing is more labor intensive due to the complexity of NEM. As explained by Mr. Baugh, there are currently four different NEM tariff options and the utilities continue to see changes with NEM billing, including those reflected in Commission Decision ("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. These ongoing changes and growth of NEM continue to impact customer service resource requirements.

Information technology has also revolutionized customer service in the energy industry. Starting with the deployment of Smart Meters, SDG&E customers have 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 to meet their needs. 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 and control how they are using energy and assist them in creating

their own energy plan to ultimately save them money and energy. Moreover, through multiple communication channels (from mobile applications ["apps"] to social media and web-based technology), SDG&E is responding to customers' expectations for more convenient interactions through modern communication channels. SDG&E is continuously enhancing these channels to streamline the experience and expand the available offerings.

Regarding efforts to improve safety through customer service, as described in the Customer Services Field testimony of Sara Franke (Ex. SDG&E-13), SDG&E has continued to improve the time it takes to respond to customer reports of gas leaks. In support of our safety-first culture, SDG&E is also proposing to spend additional time while on customer premises to educate customers about the new legal requirement and importance of installing carbon monoxide detectors, as well as demonstrate (using new wireless mobile data terminals) safety and other information available to customers on SDG&E's website.

SDG&E also takes customer privacy very seriously and has established both an Office of Customer Privacy and has designated the Vice President of Customer Services to be SDG&E's Chief Customer Privacy Officer. We 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.

D. Risk Management

SDG&E is taking steps to more systemically demonstrate our continued focus on managing risk. In 2012, the Commission recognized that the regulatory emphasis on least-cost rate making needs to change, and that greater emphasis must be placed on safety and security risks.[4] We support the Commission's efforts to bring to the GRC process an added focus on safety and security risks. Although the principles, policies and practices for integrating safety and security risk into the GRC process are still evolving, we have taken steps in this GRC to expand upon existing risk management processes, and build a strong Enterprise Risk Management organization. In 2014, SDG&E appointed Diana Day to the new position of Vice President of Risk Management. Ms. Day reports to Steven D. Davis (President and Chief Operating Officer of SDG&E), and in her new role she is responsible for expanding our risk management governance, policies and practices and integrating risk management, asset management and investment planning.

[4] Letter from Paul Clanon, CPUC Executive Director, dated March 5, 2012, to Tom Bottorff, PG&E Senior VP, Regulatory Affairs.

We take the integration of risk management, asset management and investment planning very seriously. Ms. Day's testimony on Risk Management and Policy (Ex. SDG&E-02) describes our current risk management practices, our vision and commitment to evolve those practices, and the investments necessary to move toward an integrated Enterprise Risk Management organization. Further, the testimony of Douglas Schneider (Ex. SDG&E-03), SoCalGas' Vice President of Gas Engineering and System Integrity, describes the risk policy for gas operations, and provides in greater detail our systematic risk management efforts in key gas operational areas. Similarly, the testimony of David Geier (Ex. SDG&E-03), SDG&E's Vice President of Electric Transmission and System Engineering, describes the risk policy for electric operations and details the systematic risk management efforts in key electric operations. SDG&E's appointment of an Enterprise Risk Management officer and inclusion of three officer testimonies addressing risk in this GRC demonstrate that our leadership is committed to achieving leading risk management practices.

E. Cyber and Physical Security

As part of our continued focus on managing risk, SDG&E is enhancing cyber and physical security, which involves both gas and electric operations and has become a significant source of attention and interest in recent years. Publicly disclosed attacks on customer information and critical infrastructure have been the focus of inquiry and appropriate attention in Sacramento and in Washington, D.C. Recent events such as the cyber attack at a major retailer (that resulted in the theft of customer credit card details and other customer data) and the attack at PG&E's Metcalf Substation highlight an ever-increasing risk to our industry. The operational demand for information and physical security services and capabilities for the safety and security of our customers, employees and communities is growing at a historic rate. Increases in operational security costs drive investments in people, process, and technology to combat the constant and ongoing presence of threats targeting the energy industry.

Cybersecurity closely affects customer privacy,[5] as discussed in the Information Technology testimony of Stephen Mikovits (Ex. SDG&E-19-R), and information technology staff must have very specialized and sophisticated skill sets, which requires ongoing training to enhance our employees' knowledge and techniques and keep pace with the ever-changing tools and methodologies used by

[5] Although related to cybersecurity, customer privacy efforts are discussed elsewhere in SDG&E's testimony because in addition to good security, privacy also considers transparency (i.e., notice), customer choices, and mandated requirements to share customer information with third parties. SDG&E's privacy efforts are described above in the Customer Service section and in more detail in the Customer Service testimony of Mr. Baugh (Ex. SDG&E-14).

cyber adversaries. As explained by Mr. Mikovits, operational technology investments are necessary to maintain operational capabilities/infrastructure and gather the intelligence required to ensure the technologies stay relevant in the protection and security monitoring of systems and infrastructure. Ongoing process and policy improvements in key areas will help the company prepare to address security incidents, vulnerabilities, and risk management activities. These activities are required to enable workforce education and facilitate compliance with regulatory, legal, and industry leading practices. Moreover, as described in the testimony of Mr. Woldemariam (Ex. SDG&E-10-R), cybersecurity is particularly relevant to grid and substation operations and must be updated to comply with new North American Electric Reliability Corporation Critical Infrastructure Protection ("NERC-CIP") and CPUC rules.

Regarding physical security efforts, as discussed in the testimony of Mr. Jenkins (Ex. SDG&E-09-R), physical security at substations is the subject of new NERC rules regarding critical infrastructure, which require the installation of new or upgraded security systems (*e.g.*, video surveillance and intrusion detection equipment, access control and centralized security software). SDG&E is taking such steps to bolster physical security at its substations. As described in the testimony of Mr. Dagg (Ex. SDG&E-05) and Mr. Stanford (Ex. SDG&E-06), similar efforts are planned for hardening security at a critical SDG&E gas compressor station, including reinforcement to the perimeter security as well as installation of monitors and enhanced motion sensors.

Regarding vehicle safety, included in the Fleet Services testimony of Carmen Herrera (Ex. SDG&E-16) is a request for funds to pay for retrofitting the SDG&E fleet of over-the-road vehicles with backup cameras and backup sensors to help reduce the number of backup incidents. This effort will bring the fleet in early compliance with the National Highway Traffic Safety Administration standard requiring manufacturers to install rear-view visibility systems in light duty vehicles by 2018.[6]

F. Environmental Stewardship

Investing in technologies that advance clean energy for our customers and the environment is one of SDG&E's primary goals. In addition to playing a key role in the increased use of electric vehicles and rooftop solar systems in San Diego, SDG&E is committed to being a responsible environmental steward and operating in compliance with all applicable environmental laws and regulations. According to the U.S.D.A. Forest Service, the San Diego region is a "hotspot" for biodiversity and threatened and endangered species management, and the region has more rare, threatened, and endangered species than any comparable land area in the continental United States.

[6] 49 CFR Part 571 (2014).

As such, SDG&E complies with more than 400 federal, state, and local environmental laws protecting natural resources (such as threatened or endangered animals and plants), air quality, water quality, cultural resources, waste and hazardous materials. As described in the Environmental testimony of Scott Pearson (Ex. SDG&E-18), SDG&E subjects its construction, operations and maintenance activities and projects that may impact the environment to a multi-disciplinary environmental review to ensure compliance.

SDG&E is proud of the recognition we have received for our environmental performance and stewardship. We have received numerous awards in the areas of climate leadership, supply chain greening, and water conservation, including:

- 2013 US EPA Climate Leadership Award for Supply Chain Leadership;
- 2013 San Diego Industrial Environmental Association ("IEA") Awards:
  - Water Conservation Award for our water conservation program at SDG&E substations
  - Environmental Sustainability Program Award from the IEA and the County of San Diego for our Environmental Sustainability Programs; and
- 2012 US EPA Climate Leadership Award for Organizational Leadership.

SDG&E remains committed to cost-efficient initiatives and efforts that avoid or minimize our environmental impacts, including in such areas as greenhouse gas emissions, water usage reduction, greening the supply chain, and promoting the use of alternative fuel vehicles, including electric vehicles, through our support of grid integrated charging.

G. Supplier Diversity

SDG&E will continue to invest in efforts and programs that enhance our supplier diversity, consistent with General Order ("GO") 156. Among other things, GO 156 sets forth a goal that at least 21.5% of a utility's supplier spend must be with women-owned, minority and disabled veteran businesses enterprises ("WMDVBEs"). SDG&E is proud to have surpassed this goal for the last six years, and achieved an over 40% spending level in 2013. SDG&E's strong supplier diversity is attributable to the dedication of employees known as "Supplier Diversity Champions" who manage spending efforts in their respective departments. SDG&E values the long-term relationships with our WMDVBE partners because many of them reflect the community we serve. More importantly, over the years, we have found that building and maintaining relationships with a wide variety of suppliers can result in cost savings, innovation and improved products and services for our customers.

To further develop these relationships, in this GRC, the Supplier Diversity organization has aimed to expand outreach efforts with all WMDVBEs, especially in underutilized areas. Consistent with heightened CPUC focus in these areas, Supplier Diversity has and is proposing to continue to increase small business forums (co-hosted by the CPUC) and technical assistance programs, resulting in increased mentoring and capacity building. SDG&E will also continue to focus and support WMDVBEs in key capital projects, such as the Pipeline Safety Enhancement Project ("PSEP") and Pipeline Integrity. Furthermore, the Supplier Diversity team is proposing a program to build stronger relationships with non-WMDVBE suppliers and identify opportunities for increased WMDVBE participation in supply chain sustainability. These efforts should help facilitate the growth of WMDVBEs, which is important to the economic development of the region.

H. Operational Efficiency

Improved operational efficiency will allow SDG&E to streamline costs and maximize efficiency while continuing to deliver safe and reliable service to our customers. We believe that continuous improvement and looking for ways to serve our customers more efficiently is critical to how we run our business. Accordingly, departments across SDG&E routinely undertake efforts designed to improve processes and enhance productivity. Continuous improvement tools and techniques such as benchmarking, process mapping and enhancement, and technological advances have helped foster operating efficiencies. For example, our proposed net reduction in Customer Services Field funding reflects process changes we are making to mail initial collection notices to customers, rather than delivering them in person, in addition to other efficiency improvements described in Ms. Franke's testimony (Ex. SDG&E-13). In the Customer Services testimony of Mr. Baugh (Ex. SDG&E-14), he describes how SDG&E is managing costs through technology investments in its Customer Contact Center. For example, calls are being directed to self-service by improvements in our Interactive Voice Response system as well as reductions in call handle time by providing our Energy Services Specialists with more consolidated and tailored customer information and data. Mr. Baugh also describes how our Advanced Metering Operations organization is benefiting by the introduction of advanced data analytics and data visualization technology that allows for better network monitoring and exception management. These improved operational efficiencies will help SDG&E continue to deliver valued customer service.

V. IMPLEMENTATION ON JANUARY 1, 2016

Implementing our 2016 GRC in a timely manner will help SDG&E continue delivering safe and reliable service to customers at reasonable rates and initiate the important projects detailed in our case. Thus, one of our principal goals from a procedural perspective is to urge the Commission to reach a timely GRC decision so that SDG&E can implement new rates on January 1, 2016. Our 2012 GRC was implemented over 15 months after the start of the test year. We realize this is a collaborative effort on the part of SDG&E, interested parties, and the Commission. For our part, SDG&E is filing its GRC Application approximately one month earlier than in past GRCs. In terms of cost presentation, SDG&E presents and supports forecasted costs on a directly-incurred basis instead of on a book expense basis, which should simplify the review of those costs. SDG&E has also standardized capital workpapers such that there is now uniformity between O&M and capital. Further, SDG&E has already received Commission approval to eliminate in this GRC a total productivity factor study,[7] thereby reducing those witness areas in this GRC.

SDG&E is committed to keeping the GRC schedule on track, and respectfully asks the Commission to keep all parties on that track. Even though some parties may consider delays as the new norm, from SDG&E's perspective, delays are disruptive to our customers and our business and are looked upon unfavorably by the credit rating agencies, all of which impacts our ability to begin projects, undertake proposed work, and to implement new rates to customers without a rate-shock effect.

VI. CONCLUSION

SDG&E remains strongly committed to delivering safe and reliable energy, through a safety-first culture. We are dedicated to taking steps to more systemically demonstrate our continued focus on risk management and to investing in technologies that advance clean energy for our customers and the environment. However, we must have the proper resources necessary to meet the needs of the communities we serve. With the proper resources, we will continue to take steps to enhance our customer service, including using technology to bring greater choice and empowerment to our customers and greater operational efficiency to our business. We will also continue to take the steps necessary to successfully procure renewable energy from a wide variety of sources and will integrate these resources, many of which are intermittent resources, onto our grid in a manner that maintains safety and reliability. We will also continue our efforts to be good stewards of the environment by reducing environmental impacts and fully complying with all environmental laws and regulations.

[7] D.14-03-008 (in re: A.10-12-005/6).

Finally, we will continue our efforts with respect to our workforce and suppliers such that we reflect the increasingly diverse face of California and maintain our historical role of providing economic opportunity.

This concludes our revised prepared direct testimony.

VII. WITNESS QUALIFICATIONS

CAROLINE A. WINN

I am the Chief Energy Delivery Officer for SDG&E. In this position, I oversee all energy delivery activities for SDG&E, including electric distribution operations and gas services, customer services, and external and state legislative affairs.

Since joining the company in 1986 as an associate engineer, I have held a number of leadership positions at SDG&E and Southern California Gas Co. (SoCalGas), including various positions within the electric transmission and distribution engineering and operations areas. Prior to my current position, I was Vice President Customer Services and Chief Customer Privacy Officer. Previously, I was director of supply chain management for both SDG&E and SoCalGas, following my role as director of transmission and distribution asset management where I was responsible for distribution planning, electric reliability, compliance management and information technology management.

I have a bachelor's degree in electrical engineering from California State University Sacramento and am registered as a professional engineer in the state of California. I serve on the Executive Committee for the Leukemia and Lymphoma Society's Light the Night Walk and on the Board of Directors of the Classroom of the Future Foundation. I also serve on the UC Davis Energy Efficiency Center Board of Advisors and on the Board of Directors of the California Restaurant Association. I have previously testified before the Commission.

SCOTT D. DRURY

My name is Scott Drury. My business address is 8330 Century Park Ct., San Diego, California, 92123. My current position is Chief Energy Supply Officer for SDG&E. In this position, I oversee major projects, generation and resources planning, electric and fuel procurement, transmission and system engineering, and human resources.

I joined SDG&E in 1986 and have held various positions in procurement, logistics, diverse business enterprises, construction services, safety, emergency services and human resources. I formerly served as the chairman of the board of directors for the California Utilities Emergency Association and the San Diego Regional Minority Supplier Development Council. I have a bachelor's degree in Public Administration from San Diego State University and a Master's of Business Administration from San Diego State University. I have a certificate in Human Resources from Cornell University and completed the executive finance program at Harvard University. I have provided testimony in proceedings before the Commission.

SDG&E 2016 GRC Testimony Revision Log – March 2015

Exhibit	Witness	Page	Line	Revision Detail
SDG&E-01-R	Steven D. Davis	Cover	N/A	Changed “SDG&E-01” to “SDG&E-01-R”
SDG&E-01-R	Steven D. Davis	Cover	N/A	Added “Revised”
SDG&E-01-R	Steven D. Davis	Cover	N/A	Changed “November 2014” to “March 2015”
SDG&E-01-R	Steven D. Davis	SDD-1	1	Added “Revised”
SDG&E-01-R	Steven D. Davis	SDD-4	21	Changed “1.911” to “1.905”
SDG&E-01-R	Steven D. Davis	SDD-4	22	Changed “326” to “325”
SDG&E-01-R	Steven D. Davis	SDD-4	22	Changed “1.585” to “1.580”
SDG&E-01-R	Steven D. Davis	SDD-4	23	Changed “133” to “111”
SDG&E-01-R	Steven D. Davis	SDD-4	23	Changed “estimated” to “authorized”
SDG&E-01-R	Steven D. Davis	SDD-4	31	Changed “18.5” to “38.2”
SDG&E-01-R	Steven D. Davis	SDD-4	31	Changed “0.5” to “1.0”
SDG&E-01-R	Steven D. Davis	SDD-4	31	Changed “4” to “5”
SDG&E-01-R	Steven D. Davis	SDD-4	31	Changed “0.7” to “0.8”
SDG&E-01-R	Steven D. Davis	SDD-4	32	Changed “estimated” to “authorized”
SDG&E-01-R	Steven D. Davis	SDD-5	12	Changed “.25” to “.53”
SDG&E-01-R	Steven D. Davis	SDD-5	12	Changed “0.3” to “0.5”
SDG&E-01-R	Steven D. Davis	SDD-5	13	Changed “estimated” to “authorized”
SDG&E-01-R	Steven D. Davis	SDD-5	14	Changed “0.32” to “0.38”
SDG&E-01-R	Steven D. Davis	SDD-5	14	Changed “.8” to “.9”
SDG&E-01-R	Steven D. Davis	SDD-5	14	Changed “estimated” to “authorized”
SDG&E-01-R	Steven D. Davis	SDD-5	15	Changed “.57” to “.91”
SDG&E-01-R	Steven D. Davis	SDD-5	15	Changed “0.4” to “0.7”

SDG&E-01-R	Steven D. Davis	SDD-5	16	Changed “estimated” to “authorized”
SDG&E-01-R	Steven D. Davis	SDD-6	14	Added “miles of” to “approximately 6,600 gas service lines” to make it “approximately 6,600 miles of gas service lines”