Company: San Diego Gas & Electric Company (U902M)
Proceeding: 2016 General Rate Case
Application: A.14-11-XXX
Exhibit: SDG&E-05

SDG&E

DIRECT TESTIMONY OF JOHN L. DAGG

(GAS TRANSMISSION OPERATIONS AND MAINTENANCE)

November 2014

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

SDGE
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GAS TRANSMISSION			
Shown in Thousands of 2013 Dollars	**2013 Adjusted-Recorded**	**TY2016 Estimated**	**Change**
Total Non-Shared	4,130	4,663	533
Total Shared Services (Incurred)	0	0	0
Total O&M	**4,130**	**4,663**	**533**

San Diego Gas & Electric Company (SDG&E or the Company) requests approval of a Test Year (TY) 2016 forecast of $4,663,000 for Gas Transmission Operation and Maintenance (O&M) costs. This forecast is based on an adjusted three-year average of historical spending and represents an increase of approximately $533,000 over 2013 adjusted-recorded costs. Expenditures discussed in this testimony represent day-to-day expenses associated with operating and maintaining SDG&E's natural gas transmission system. Approval of the forecasts in this testimony will further SDG&E's objective to sustain operational excellence in the provision of safe, reliable delivery of natural gas to customers at a reasonable cost.

The forecast in this testimony is for Non-Shared cost only, because SDG&E Gas Transmission does not provide any shared services. The forecast of Gas Transmission capital-related costs is presented in the Direct Testimony of Raymond Stanford, Exhibit SDG&E-06.

SDG&E DIRECT TESTIMONY OF JOHN L. DAGG
GAS TRANSMISSION OPERATIONS AND MAINTENANCE

I. INTRODUCTION

A. Summary of Costs

I sponsor the TY 2016 forecasts for O&M costs for non-shared services for the forecast years 2014, 2015, and 2016 that are associated with SDG&E's Gas Transmission activities. Expenditures discussed in this testimony represent day-to-day expenses associated with the following Gas Transmission operation functions:

- Pipeline Operations;
- Gas Compression Operations; and
- Field Engineering and Technical Support Services

SDG&E requests the Commission adopt its TY2016 forecast of $4,663,000 for total Gas Transmission O&M expenses. This forecast is based on an adjusted three-year average of historical spending and represents an increase of approximately $533,000 over 2013 adjusted-recorded costs. Approval of the forecasts in this testimony will further SDG&E's objective to sustain operational excellence in the provision of safe, reliable delivery of natural gas to customers at a reasonable cost. Table JLD-1 below summarizes my sponsored costs.

Table JLD-1
San Diego Gas & Electric Company
Total Gas Transmission O&M

GAS TRANSMISSION			
Shown in Thousands of 2013 Dollars	**2013 Adjusted-Recorded**	**TY2016 Estimated**	**Change**
Total Non-Shared	4,130	4,663	533
Total Shared (Incurred)	0	0	0
Total O&M	**4,130**	**4,663**	**533**

This cost forecast is based entirely on non-shared service activities, because SDG&E Gas Transmission does not provide any shared services. Unless otherwise noted, all costs in this testimony are shown in thousands of 2013 dollars. Capital expenditures in support of SDG&E's Gas Transmission operations are addressed in the Direct Testimony of Raymond Stanford,

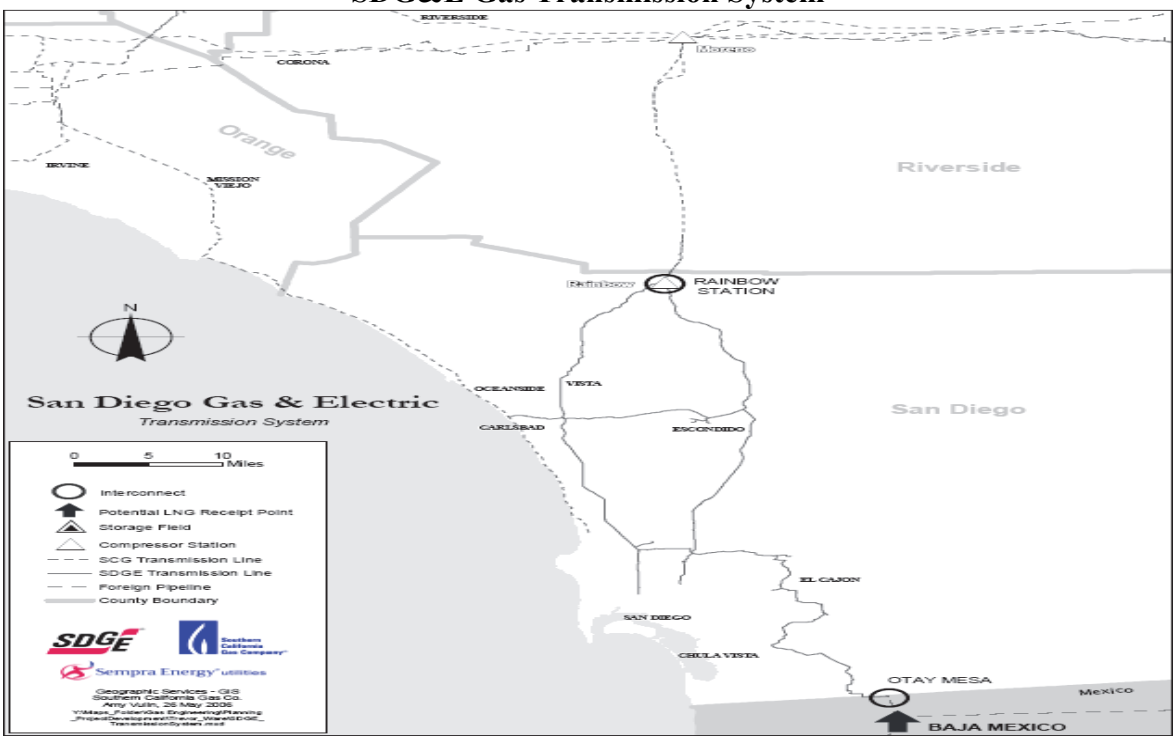
Exhibit SDG&E-06. Additional information about the activities and forecasts described here may be found in my supporting workpapers, Exhibit SDG&E-05-WP.

B. Summary of Activities

Key objectives of the Gas Transmission organization are to operate safely, achieve compliance with applicable legal and regulatory requirements, and provide customers with reliable natural gas service at reasonable cost.

The boundaries of the SDG&E transmission system service territory encompass the City and County of San Diego. Gas is received into the transmission system from Southern California Gas Company (SoCalGas) facilities through interconnection points at the San Diego/Riverside County border at Rainbow, California and at the San Onofre receipt point in San Clemente, California. The system is also designed to receive re-gasified Liquefied Natural Gas supplies from Transportadora de Gas Natural de Baja California S. de R.L. de C.V., a Mexican Pipeline Company through an interconnection located in the community of Otay Mesa, San Diego. SDG&E's annual send-out has averaged 125.1 Bcf over the last five years, with a peak send-out of 140.4 Bcf in 2012. Figure JLD-1, below, shows a map of the system.

Figure JLD-1
San Diego Gas & Electric Company
SDG&E Gas Transmission System



The United States Department of Transportation (DOT) utilizes specific engineering criteria to define the term "transmission pipeline." Under the DOT definition, SDG&E's Distribution and Transmission operating units collectively operate approximately 234 miles of "DOT-defined transmission pipeline." Of the 234 miles of DOT-defined transmission pipelines, SDG&E's Gas Transmission organization is responsible for the operation and maintenance of approximately 175 miles of high-pressure pipelines and two compressor stations totaling approximately 19,665 horsepower.

SDG&E and SoCalGas combined the management responsibilities for both utilities' gas transmission systems in 2002. The daily operation and maintenance of the SDG&E gas transmission pipeline and compressor station systems are performed by SDG&E employees, with technical engineering support performed by SDG&E's Gas Transmission Technical Services organization.

Managerial leadership over SDG&E's Gas Transmission organization and operation and maintenance activities is provided by SoCalGas' Gas Transmission and System Operations organization. The cost of the services provided by SoCalGas are billed to SDG&E and booked as a component of SDG&E's O&M expenses. SDG&E's Gas Transmission organization does not provide any billable services back to SoCalGas.

C. Safety/Risk Considerations

SDG&E's Risk Policy witnesses, Diana Day (Exhibit SDG&E-02) and Douglas Schneider (Exhibit SDG&E-03), describe how risks are assessed and factored into cost decisions on an enterprise-wide basis. Other aspects of risk mitigation in the SDG&E system, some of which address Gas Transmission, are addressed under the Transmission Pipeline Integrity Program, described in the testimony of Maria Martinez (Exhibit SDG&E-07).

Operation and maintenance activities for the gas transmission system are primarily influenced by customer usage, market forces, and available pipeline capacity. Given these key factors, operational risk impacts are considered by Gas Transmission through daily operating decision-making activities. This time-sensitive critical method of risk assessment is utilized throughout the daily management of the gas transmission system, and is based on effective utilization of available real-time data and resources. This method of analytical examination considers loss of operational ability resulting from potential system constraints, external influences, resource availability and cost considerations.

D. Cost Forecast Methodology

The TY2016 forecast of expense was determined by first reviewing five years (2009 through 2013) of historical recorded costs. The recorded costs were adjusted to remove expenses associated with any one-time events, and by making other applicable accounting adjustments. The results of this process were then used to calculate three, four, and five-year linear-trends, and three, four, and five-year, annual-averaging results. Differences in the results of each of the methodologies evaluated proved to be small in scale.

Rather than simply relying on multi-year averaging principles to determine this cost forecast, I considered the reasonableness of the various results to identify the best available, and most applicable, predictor of future period costing. Through this process, I determined that there is greater value in utilizing a shorter, more recent historical period result (three years) to forecast a near-term future period of expense, especially when the expenses and activities are associated with a continually evolving, regulatory and safety awareness-guided industrial environment, such as Gas Transmission operations.

Next, I reviewed operational standards, and new and proposed O&M activities to identify and quantify any new and emerging activities expected to be realized over the term of the GRC period, and developed cost estimates for these activities. These future year incremental cost estimates were then added to the three-year annual average adjusted-recorded results. The results of these calculations establish my TY2016 forecast.

For costs identified as subject to non-standard escalation, the TY2016 forecast was determined based on applying a zero-based (base year 2013) approach, and, depending on the nature of the specific item of expense, were then adjusted annually, based either on applicable multi-year averaging or other specific (state or federal) future year inflation indexes. Specific forecast assumptions on these expenses are described in detail in each individual category of cost in my workpapers (Exhibit SDG&E-05-WP).

E. Support To/From Other Witnesses

My testimony provides support for certain environmental cost forecasts that are discussed in the Environmental Services testimony of Scott Pearson (Exhibit SDG&E-18), and fleet acquisition costs forecasts that are discussed in the Fleet and Facility Operations testimony of Carmen Herrera (Exhibit SDG&E-16). Where this testimony discusses environmental, fleet or related topics, those related exhibits provide additional information.

II. NON-SHARED OPERATIONS AND MAINTENANCE COSTS

The costs presented within this testimony are necessary to support the following Gas Transmission Non-Shared Service operational functions:

- Gas Transmission Pipelines;
- Compressor Stations; and
- Field Engineering and Technical Support.

Table JLD-2 below summarizes the total non-shared O&M forecasts for the listed cost categories.

Table JLD-2
San Diego Gas & Electric Company
Total Non-Shared O&M

GAS TRANSMISSION			
Shown in Thousands of 2013 Dollars	**2013 Adjusted-Recorded**	**TY2016 Estimated**	**Change**
A. Gas Transmission Pipelines	1,055	1,243	188
B. Compressor Stations	2,969	3,314	345
C. Field Engineering and Technical Support	106	106	0
Total	**4,130**	**4,663**	**533**

A. Gas Transmission Pipelines

1. Description of Costs and Underlying Activities

The Gas Transmission Pipelines function within Gas Transmission is responsible for the safe day-to-day operation and maintenance of gas transmission pipeline facilities and related infrastructure. This includes operating and maintaining equipment at pipeline receipt points, valve control stations, major customer delivery custody-transfer points, all associated monitoring, metering, and control facilities, odorization equipment, and real-time operating data telemetry communications between gas facilities and SoCalGas' Gas Control and SCADA (Supervisory Control and Data Acquisition System) Operations department. Pipeline Operations also performs leak surveys of all transmission pipeline facilities, operates and maintains the cathodic protection systems, conducts surveillance of third-party construction activities around the vicinity of buried pipeline facilities, and performs locate-and-mark services to identify the location of buried facilities. Additional responsibilities include:

- Developing and implementing gas handling procedures;
- Providing emergency services in response to earthquakes, wildfires, dig-ins, or other events, as needed, in order to minimize the potential for danger to the public and/or to minimize impact to system reliability;
- Investigating and addressing gas quality issues; and
- Maintaining compliance with applicable regulatory requirements.

Applicable regulations cover a broad range of concerns, including: air quality; asbestos; lead; polychlorinated biphenyls; natural resources; ground water; storm water; hazardous waste and materials handling; and above- and below-ground storage/collection vessels. In order to uphold compliance with applicable regulations and permitting and reporting requirements, Gas Transmission continually tracks and analyzes changes in regulatory requirements and adjusts operations accordingly.[1]

The costs estimates presented support the activities of the Gas Transmission Pipelines Department to achieve operational safety, reliability, and regulatory compliance goals, as outlined above.

2. Forecast Method

The TY2016 forecast was determined through the use of a three-year (2011 through 2013) annual average method, unless otherwise indicated in the Cost Drivers section below. This methodology was selected because the more recent historical period better reflects the expenses and activities anticipated for Gas Transmission operations in the near term. Future year incremental cost estimates were then added to the three-year annual average adjusted-recorded results. The results of these calculations establish my TY2016 forecast.

For costs identified as subject to non-standard escalation in the Cost Drivers discussion below, the TY2016 forecast was determined based on applying a zero-based (base year 2013) approach, and, depending on the nature of the specific item of expense, were then adjusted annually, based either on applicable multi-year averaging or other specific (state or federal) future year inflation indexes. Specific forecast assumptions on these expenses are described in detail in each individual category of cost in my workpapers (Exhibit SDG&E-05-WP).

[1] *See also* Ex. SDG&E-18, Direct Testimony of R. Scott Pearson, Environmental Services.

3. Cost Drivers

Increased regulatory requirements and changes in Company policy relating to maintenance and enhancement of the integrity of the transmission pipeline system drive a need for additional labor and non-labor costs in the following areas:

- DOT Pipeline Safety Fee;
- Knowledge Management/Succession Staffing;
- Pipeline District–Workload Increase; and
- Post-PSEP Incremental O&M.[2]

a. DOT Safety Fee (Non-Standard Escalation)

The DOT, through the Pipeline and Hazardous Materials Safety Administration, is authorized to assess and collect user fees to fund its pipeline safety program activities. This authority is provided under Title 49 of the Consolidated Omnibus Budget Reconciliation Act of 1985.[3] The TY2016 fee estimate of $61,000 was calculated based on a calculation that utilized a sliding three-year averaging of both the applicable annual rate-per-mile fee and the annual number of miles of pipeline. The sliding annual forecasting calculation was based on actual recorded per-mile assessed fee amounts for years 2012 through 2014, and estimated per-mile fee amounts for years 2015 and 2016. The resulting increase for TY2016 is forecast at 12.6% above 2013 base year adjusted recorded amounts.

b. Knowledge Management/Succession Staffing

Knowledge Management consists of driving a culture of ongoing transference of historical operational knowledge through use of innovative processes and technologies. Gas Transmission has been working with the Human Resources organization to develop a broad organization-wide strategy to embed knowledge management into the culture. The objective is for effective knowledge management to become "the way we do our work" in anticipation of the turnover of key personnel. This strategy identifies the critical skills and attributes that must be transitioned to new employees prior to the departure of critical work unit staffing, and aids in the mitigation of risk associated with not having experienced personnel in place and fully prepared to take on the daily operating responsibilities of key operational positions. Funding of an additional $55,000 for labor and $5,000 for non-labor is required to enable a less-experienced

[2] The Pipeline Safety Enhancement Program (PSEP) was approved by D.14-06-007 in A.11-11-003.
[3] 49 USCS §§ 60301, *et seq.*

employee to shadow a retiring employee in a critical operations position within the Gas Transmission Pipelines department for six months prior to the departure of the more-experienced employee.

c. Miramar Pipeline District – Workload Increase

The Miramar Pipeline District is comprised of an operating base located in the city of Miramar. The District is responsible for performing all O&M activities supporting the approximately 175 miles of gas transmission pipelines operated by SDG&E, and all associated gas measurement, pressure regulation, and non-core customer equipment and facilities.

Work at the district level is routinely performed under the direct supervision of a Field Operations Supervisor position. The Field Operations Supervisor position provides direct front-line supervision and work direction to employees in their performance of retrofit alterations and repairs, and operation and maintenance activities. The position is critical to successful execution of all day-to-day operations. Gas Transmission has identified the need to increase supervisory support in this area. This requirement is the result of increased workload activity related to ongoing pipeline O&M retrofit activity, an area of activity where growth has occurred and is expected to continue. This request for increased labor expense in the amount of $17,000 directly supports the continued achievement of safety, compliance, and reliability goals in pipeline operations. One (1) incremental work vehicle is also required for this position and is reflected in the Fleet and Facility Operations testimony of Carmen Herrera (Exhibit SDG&E-16).

d. Post-PSEP Incremental O&M

In 2011, SDG&E and SoCalGas jointly submitted a safety enhancement plan to the Commission that, among other things, proposed remote control valve/automatic shut-off valve installations and retrofits to isolate and depressurize pipelines in the event of a rupture, enhance flow measurement and telemetry at new pipeline locations, and prevent gas back-flow into major pipeline isolation sections when lines are depressurized. Pending adoption of the proposed PSEP, SDG&E and SoCalGas were authorized to begin work and record costs in a memorandum account for future review and recovery of costs. The PSEP was subsequently approved by the Commission in Decision 14-06-007.

Valves, actuators, and related transmission system control components newly-installed or retrofitted as part of the approved PSEP must be maintained by Gas Transmission as part of SDG&E's ongoing O&M activities. Through 2015, the incremental O&M costs necessary to

maintain newly-installed or retrofitted equipment approved and installed as part of PSEP are included within the scope of PSEP. Beginning in 2016, the incremental costs for maintaining these enhanced facilities will no longer be recovered through the PSEP and instead, will be addressed under SDG&E's General Rate Case. Accordingly, this cost category reflects incremental labor costs of $90,000 and non-labor costs of $39,000 to maintain these new or enhanced systems beginning in 2016.

Cost estimates were developed under a zero-based estimate formula for valve work at a complex station providing remote control valve/automatic shut-off valve and overpressure protection with dual communications and pressure reads. The cost estimating formula captures expenses associated with the performance of annual calibrations, vault inspections, valve maintenance (operations and lubrication), testing and allowance for troubleshooting and unscheduled maintenance. One (1) additional work vehicle is requested for this work, and is reflected in the Fleet and Facility Operations testimony of Carmen Herrera (Exhibit SDG&E-16).

B. Compressor Stations Operations

1. Description and Underlying Activities

The Compressor Stations function is responsible for the safe day-to-day operation and maintenance of SDG&E's two compressor station facilities and related infrastructure. This responsibility includes operating and maintaining 14 main compressor engines and ancillary equipment, all associated monitoring, metering, and control facilities, odorization equipment, filtration vessels, cooling equipment, and real-time operating data telemetry communications between compression facilities and SoCalGas' Gas Control and SCADA Operations department. Additional responsibilities include:

- Developing and implementing gas compression operating and maintenance procedures;
- Conducting compressor unit and station inspections under planned maintenance schedules, as well as after service interruptions caused by events such as earthquakes, wildfires, pipeline shut-ins, etc. in order to maximize system and equipment availability and reliability and therefore minimize the impact of such events upon Gas Transmission, Gas Distribution and Customer Services Operations;
- Adjusting operating parameters to maintain Gas Transmission system integrity and address/mitigate gas quality issues;

- Providing 24-hour staffing at strategic locations and response to address any compression operation issues; and
- Maintaining compliance with applicable regulatory requirements.

Applicable Regulatory requirements cover a broad array of topics, including: air quality; asbestos; lead; polychlorinated biphenyls; natural resources; ground water; storm water; process waste water; hazardous waste and materials; and above- and below-ground tanks. In order to uphold compliance with applicable regulations and permitting and reporting requirements, Gas Transmission continually tracks and analyzes changes in regulatory requirements and adjusts operations accordingly.[4] Regulatory changes require enhanced monitoring, record-recording and reporting practices. These include Reciprocating Internal Combustion Engines / National Emissions Standards for Hazardous Air Pollutants (Reciprocating Internal Combustion Engines National Emissions Standards for Hazardous Air Pollutants) Subpart ZZZZ, Greenhouse Gas mitigation at the state and federal level, and local Air Quality Management District rules that require additional data to be recorded and available for verification of compliance.

2. Forecast Method

The TY2016 forecast was determined through the use of a three-year (2011 through 2013) annual average method, unless otherwise indicated in the Cost Drivers section below. This methodology was selected because the more recent historical period better reflects the expenses and activities anticipated for Gas Transmission operations in the near term. Future year incremental cost estimates were then added to the three-year annual average adjusted-recorded results. The results of these calculations establish my TY2016 forecast.

For costs identified as subject to non-standard escalation in the Cost Drivers discussion below, the TY2016 forecast was determined based on applying a zero-based (base year 2013) approach, and, depending on the nature of the specific item of expense, were then adjusted annually, based either on applicable multi-year averaging or other specific (state or federal) future year inflation indexes. Specific forecast assumptions on these expenses are described in detail in each individual category of cost in my workpapers (Exhibit SDG&E-05-WP).

[4] *See* Ex. SDG&E-18, Direct Testimony of R. Scott Pearson, Environmental Services.

3. Cost Drivers

The costs represented under the Compressor Stations category support achievement of Gas Transmission's operational safety, reliability, and regulatory compliance objectives as previously mentioned above. Additional funding to support work in the following areas is requested:

- Station Mechanic Workload Increase;
- Knowledge Management/Succession Staffing;
- Re-Claim Emission Credits Procurement;
- State Water Board Permit Fees;
- Critical Facility Security; and
- Greenhouse Gas Mitigation/Compliance (NERBA).

a. Station Mechanic Workload Increase

An estimated 96% of the natural gas in the San Diego region flows through the Moreno Compressor Station. The Moreno station operates within a rigid regulatory environment where emissions are tracked per Title V of the 1990 federal Clean Air Act Amendments, Air Quality Management District Rule 1110.2, California Air Resources Board (CARB) greenhouse gas regulations, and Regional Clean Air Incentives Market (RECLAIM) operating permits. Each of these regulations establishes limits on specific emissions constituents, like volatile organic compounds, carbon monoxide, and Nitrogen Oxide. The station operates multiple control and monitoring systems to help track and report emissions on a continuous basis. In order to run the engines at their optimum performance, SDG&E mechanics are required to constantly fine tune, balance, and immediately adjust equipment to prevent a unit from falling out of compliance on a continuous 24-hour basis. Many times, these adjustments are required after hours on a call-out basis. The addition of one (1) station mechanic position, with related labor and non-labor costs of $45,000 and $5,000, respectively is required in order to maintain regulatory compliance. Should regulatory compliance not be sustainable, the station's ability to continue operating may be adversely impacted.

b. Knowledge Management/Succession Staffing

Knowledge Management consists of driving a culture of ongoing transference of historical operational knowledge through use of innovative processes and technologies. Gas Transmission has been working with the Human Resources organization to develop a broad

organization-wide strategy to embed knowledge management into the culture. The objective is for effective knowledge management to become "the way we do our work" in anticipation of the turnover of key personnel. This strategy identifies the critical skills and attributes that must be transitioned to new employees prior to the departure of critical work unit staffing, and aids in the mitigation of risk associated with not having experienced personnel in place and fully prepared to take on the daily operating responsibilities of key operational positions. The required funding of $55,000 for labor and $5,000 for non-labor, is to enable a less-experienced employee to shadow a retiring employee in a critical operations position within the Compressor Stations department for six months prior to the departure of the more-experienced employee.

c. RECLAIM Emission Credits Procurement

The South Coast Air Quality Management District (SCAQMD) administers the RECLAIM to reduce the emission of oxides of nitrogen and sulfur within the South Coast Air Basin, as defined by the CARB. The RECLAIM incentive program operates under the authority of SCAQMD, pursuant to Regulation XX and Rules 2000 through 2020, as amended May 6, 2005. SDG&E has been a participant in this program, which includes flexible options for emission reduction, including add-on controls, equipment modifications, reformulated products, operational changes, shutdowns, and the purchase of excess emission reduction credits, since its inception on January 1, 1994.

SDG&E requires RECLAIM Trading Credits for excess nitrogen oxide emissions for the operation of its Moreno compressor station. The trading credit requirements are expected to increase over the term of this forecast period due to the Moreno station operating at higher levels than experienced in prior years, and the cost of the credits is forecast to increase at a greater rate than experienced in prior years, as a result of CARB's planned reduction of available RECLAIM trading credits. Total non-labor costs of $123,000 are estimated for this category.

d. State Water Board Permit Fees (Non-Standard Escalation)

The California State Water Resources Control Board publishes a fee schedule applicable to the assessment of annual fees for wastewater permitting and water quality certifications issued by the agency and Regional Water Quality Control Boards. A revised fee schedule is normally adopted by the agency each September, with the revised fees becoming effective from the previous July 1 to the following June 30. Fee schedules are published in the California Code of

Regulations.[5] A TY2016 fee forecast of $13,000 was developed based on a four-year (2010 through 2013) average methodology, resulting in an annual fee increase equal to 14.8% throughout the forecast period.

e. Critical Facility - Security Upgrades

In accordance with new pipeline security guidelines issued in April 2011 by the Pipeline Security Division of the Department of Homeland Security's Transportation Security Administration within what is now the Office of Transportation Sector Network Management, pipeline operators are required to implement improvements in the safety and security of identified critical pipeline operational facilities.

In executing its responsibility for national pipeline security, TSNM has utilized the Pipeline Security Information Circular, issued on September 5, 2002, by the DOT's Office of Pipeline Safety, as the primary Federal guideline for industry security. Complementing this document, and also adopted by Transportation Security Administration, was the DOT-issued Pipeline Security Contingency Planning Guidance of June 2002.

In order to comply with this requirement, SDG&E has implemented 24-hour, seven-day per week guard patrol service at a critical compressor station facility. Non-labor costs of $61,000 are requested to support this safety enhancement.

f. Greenhouse Gas Mitigation/Compliance

A new regulatory requirement, Senate Bill 1371 (SB 1371), was adopted September 2014. This requirement differs from a similar requirement under Environmental Protection Act, Subpart W (for fugitive emission monitoring) that addresses distribution facilities downstream of major equipment, such as compressors, regulator stations and valves.

Senate Bill 1371 requires the CPUC to adopt rules and procedures to reduce emissions of natural gas pursuant to the California Global Warming Solutions Act of 2006. SB 1371 regulates natural gas leakage abatement for Commission-regulated gas pipeline facilities that are intrastate natural gas transmission and distribution lines. Additionally, CARB's recent updates to the AB 32 Climate Change Scoping Plan indicate a desire by State regulators to minimize methane emissions from natural gas transmission and distribution systems by developing regulations to reduce fugitive emissions. The requirements proposed in SB 1371 differ from current requirements under Environmental Protection Act Subpart W for fugitive emission monitoring

[5] *See* 23 Cal. Code Reg. 9, Div. 3, Art. 1.

and leak detection. SB 1371 establishes a reduction program that requires rigorous leak testing and repairs to minimize gas distribution system leaks and any associated fugitive methane emissions.

SB 1371 rulemaking is expected to be completed during the rate case period 2014-2016, with initial costs to SDG&E in 2016. Because the final conditions of the requirements in SB 1371 are not exactly known, SDG&E is requesting that estimated non-labor costs of $74,000 associated with SB 1371 be included in rates and subject to two-way balancing account treatment in the New Environmental Regulatory Balancing Account (NERBA). The NERBA is described in the Regulatory Accounts testimony of witness Norma Jasso, Exhibit SDG&E-35.

C. Field Engineering and Technical Support

1. Description of Costs and Underlying Activities

The Field Engineering and Technical Support function includes the activities of design engineering, instrumentation, control, project support, and environmental services in support of the day-to-day operations and maintenance of the gas transmission system. The costs presented under this category support the achievement of Gas Transmission's operational safety, reliability, and regulatory compliance goals. Responsibilities include providing on-site technical expertise to Gas Transmission Pipelines and Compressor Stations field personnel, and troubleshooting technical issues for both capital and O&M projects. Field Engineering and Technical Support also provide environmental support services to the Gas Transmission Pipelines and Compressor Stations groups, which is necessary to support their day-to-day operations.

SDG&E forecasts no increase in O&M costs over base year 2013 adjusted-recorded for this organization in TY2016. Capital expenses in support of SDG&E's transmission operations are addressed in the Direct Testimony of Raymond Stanford (Exhibit SDG&E-06).

2. Forecast Method

The TY2016 forecast was determined through the use of a three-year (2011 through 2013) annual average method. This methodology was selected because the more recent historical period better reflects the expenses and activities anticipated for Gas Transmission operations in the near term.

3. Cost Drivers

As noted above, SDG&E is forecasting no increase in O&M costs over base year 2013 adjusted-recorded for this organization in TY2016.

III. CONCLUSION

The forecast of TY2016 costs associated with the operation and maintenance of the SDG&E gas transmission system as presented in this testimony are reasonable and should be adopted by the Commission. The TY2016 forecast of $4,663,000 for Non-Shared O&M expenses reflects SDG&E's commitment to sustaining safe and reliable service to our customers at reasonable cost, while maintaining regulatory compliance.

This concludes my prepared direct testimony.

IV. WITNESS QUALIFICATIONS

My name is John L. Dagg. I presently hold the position of Director Gas Transmission and System Operations for SoCalGas and SDG&E. I hold a Bachelors of Science degree in Mechanical Engineering from California State University, Northridge.

I have a broad background in engineering and natural gas pipeline operations with over 30 years of experience with SoCalGas and SDG&E. I have held a number of technical and managerial positions with increasing responsibility in the Gas Engineering, Gas Operations, Gas Distribution, and Gas Transmission Departments. In these positions, I have been responsible for gas system control operations, field operations, technical services, and engineering design and construction. I have held my current position as the Director of Gas Transmission and System Operations since April 2009.

I have testified previously before the Commission.

Appendix A

Glossary of Acronyms

Bcf	Billion cubic feet
CARB	California Air Resources Board
CPUC	California Public Utilities Commission / Commission
DOT	Department of Transportation, United States
NERBA	New Environmental Regulatory Balancing Account
O&M	Operations and Maintenance
PSEP	Pipeline Safety Enhancement Program
RECLAIM	Regional Clean Air Incentives Market
SCADA	Supervisory Control and Data Acquisition
SCAQMD	South Coast Air Quality Management District