

Company: San Diego Gas & Electric Company (U 902 M)
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Application: A.22-05-016
Exhibit: SDG&E-07-R

REVISED

PREPARED DIRECT TESTIMONY OF

MARIA T. MARTINEZ

(GAS ENGINEERING)

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA



August 2022

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SUMMARY

GAS ENGINEERING (In 2021 \$)				
	2021 Adjusted-Recorded (000s)	Estimated 2022 (000s)	Estimated 2023 (000s)	Estimated 2024 (000s)
Total CAPITAL	336	295	295	295

The purpose of Gas Engineering is to establish and oversee the engineering aspects of the gas infrastructure¹ to satisfy federal agency requirements set forth by Pipeline and Hazardous Materials Safety Administration (PHMSA) and the California Public Utility Commission’s Safety and Enforcement Division (SED) to continually enhance safety, implement industry best practices, and to optimize infrastructure and end-use equipment performance for San Diego Gas and Electric (SDG&E). Gas Engineering supports all groups within SDG&E that need engineering support or guidance related to the gas infrastructure or end-use equipment, including but not limited to the key operating groups such as Transmission, Distribution, Storage, and Customer Services. Gas Engineering provides engineering programs, training, guidance, policies, designs, and data analytics focused on providing safe, compliant, reliable, resilient and cost-effective energy infrastructure for both Utilities.

In preparing my Test Year 2024 (TY 2024) forecast for this testimony, I reviewed historical spending levels and developed an assessment of future requirements. All my SDG&E forecasts for shared operating and maintenance (O&M) costs are embedded in my SoCalGas testimony and mostly rely upon an average methodology and, where necessary, incremental costs are applied. In this testimony, I am sponsoring capital forecast related to supervision and engineering overhead.

In total, SDG&E requests the Commission adopt capital expenditures of \$295,000 each year for the forecast years 2022, 2023, 2024, respectively.

¹ Gas infrastructure could include, and is not limited to, natural gas, renewable natural gas, hydrogen, CO2, and “all real estate, fixtures, and personal property, owned, controlled, operated, or managed in connection with or to facilitate the production, generation, transmission, delivery, underground, storage, or furnishing of gas, natural or manufactured, except propane, for light, heat, or power.” *See* Pub. Util. Code Section 221.

**REVISED PREPARED DIRECT TESTIMONY OF
MARIA T. MARTINEZ
(GAS ENGINEERING)**

I. INTRODUCTION

A. Summary of Gas Engineering Costs and Activities

My testimony supports the Test Year 2024 forecasts for capital costs for the forecast years 2022, 2023, and 2024, associated with the Gas Engineering area for SDG&E. Table MM-1 summarizes my sponsored costs.

**TABLE MM-1
Test Year 2024 Summary of Total Costs**

GAS ENGINEERING (In 2021 \$)				
	2021 Adjusted-Recorded (000s)	Estimated 2022 (000s)	Estimated 2023 (000s)	Estimated 2024 (000s)
Total CAPITAL	336	295	295	295

My testimony supports the TY 2024 forecasts for SDG&E capital expenditures of \$295,000 each year for the forecast years 2022, 2023, and 2024, respectively. The purpose of Gas Engineering is to establish and oversee the engineering aspects of the gas infrastructure for satisfying federal and state environmental and safety requirements, implementing industry best practices, and optimizing infrastructure and end-use equipment performance for both SDG&E and SoCalGas. Gas Engineering supports all groups, such as Gas Transmission, Distribution, and Customer Services. Gas Engineering provides engineering programs, training, guidance, policies, designs, and data analytics focused on providing safe, compliant, reliable, resilient, and cost-effective energy infrastructure.

B. Organization of Testimony

My testimony is organized as follows:

- Introduction
- Sustainability and Safety Culture
- Capital Pool Account
- Conclusion

1 **II. SUSTAINABILITY AND SAFETY CULTURE**

2 Sustainability, safety and reliability are the cornerstones of SDG&E’s core business
3 operations and are central to SDG&E’s GRC presentation. SDG&E is committed to not only
4 delivering clean, safe, and reliable electric and natural gas service, but to doing so in a manner
5 that supports California’s climate policy, adaptation, and mitigation efforts. In support of the
6 legal and regulatory framework set by the state, SDG&E has set a goal to reach Net Zero
7 greenhouse gas (GHG) emissions by 2045, adopted a Sustainability Strategy to facilitate the
8 integration of GHG emission reduction strategies into SDG&E’s day-to-day operations and long-
9 term planning, and published a GHG Study that recommends a diverse approach for California
10 leveraging clean electricity, clean fuels, and carbon removal to achieve the 2045 goals through
11 the lens of reliability, affordability, and equity.² The Sustainability Strategy serves as SDG&E’s
12 guide to enable a more just and equitable energy future in SDG&E’s service territory and
13 beyond.³ As a “living” strategy, SDG&E will continue to update the goals and objectives as
14 technologies, policies, and stakeholder preferences change. See the Sustainability Policy
15 testimony of Estela de Llanos (Ex. SDG&E-02).

16 In this GRC, SDG&E focuses on three major categories that underpin the Sustainability
17 Strategy: mitigating climate change, adapting to climate change, and transforming the grid to be
18 the reliable and resilient catalyst for clean energy. SDG&E’s goal is to contribute to the
19 decarbonization of the economy by way of diversifying energy resources, collaborating with
20 regional partners, and providing customer choice that enables an affordable, flexible, and
21 resilient grid. Many of the activities described in further detail in this testimony advance the
22 state’s climate goals and align with SDG&E’s Sustainability Strategy.

23 In addition, as described in the RAMP Chapter “Energy System Resilience”, SDG&E is
24 intent on leading the transition to resilient decarbonized energy. This will be accomplished
25 through various pathways and Gas Engineering is set to play a critical role in evaluating some of
26 these options. For example, SDG&E has started along the journey of evaluating and completing
27 the deliverables of the Climate Change Adaptation Order Instituting Rulemaking (OIR) in order

² The Path to Net Zero, A Decarbonization Roadmap for California, April 2022, *available at:*
<https://www.sdge.com/sites/default/files/documents/netzero2.pdf>.

³ Building a Better Future, SDG&E Sustainability Strategy Update, October 2021, *available at:*
https://www.sdge.com/sites/default/files/documents/Sustainability_2021.pdf.

1 to incorporate results of the vulnerability assessment within the next GRC filing.⁴ The
2 vulnerability assessment for the Climate Change Adaptation OIR focuses on climate risk,
3 specifically temperature, sea-level, wildfire, precipitation, and cascading impacts, to utility
4 operations, services, and assets.⁵ At the conclusion of the assessment, the expectation is to
5 provide a portfolio of options dealing with vulnerability both short- and long-term efforts as
6 mentioned within the next GRC. SDG&E has established a memorandum account to capture
7 activities related to the OIR mandates.⁶

8 In addition, to maintain energy resilience, it is critical that there is a diversification of fuel
9 supply leading to the pathway of clean fuels such as hydrogen and Renewable Natural Gas
10 (RNG) to support decarbonized energy. In the last few years, SoCalGas has focused on
11 preparing its integrated pipeline system and standards for RNG, which have been successfully
12 implemented with the production of RNG at the four Senate Bill (SB) 1383 Dairy Farm pilots in
13 the San Joaquin Valley, for example.⁷ These Dairy Farm pilots are an investment in reducing
14 GHG emissions in California by capturing methane that, historically, would be released into the
15 atmosphere. Additionally, SoCalGas added four more Dairy Farm producers since the
16 completion of SB 1383 Dairy Farm pilot sites totaling eight dairy farm producer sites that are
17 operational. Gas Engineering provides system capacity and planning analysis, design services,
18 gas quality testing, field support and compression services for RNG producer developers. Also,
19 SoCalGas continually participates in international discussions about Renewable Natural Gas
20 injection into gas utility infrastructure. This GRC is a continuation of SoCalGas's efforts to
21 support climate initiatives and goals while maintaining a safe, reliable system.

22 In terms of safety, although there are no RAMP-related costs for Gas Engineering, the
23 critical role Gas Engineering plays in completing the controls and mitigations to reduce system

⁴ See SDG&E Advice Letter 3722-E, Informational Advice Letter: Update on the Climate Change
Adaption Team Initiatives in Compliance with Decision (D.) 20-08-046. *available at*
<https://tariff.sdge.com/tm2/pdf/3722-E.pdf>.

⁵ D.20-08-046 at 124-128 (Ordering Paragraph 9).

⁶ SDG&E Advice Letter 3614-E/2907-G, Establishment of the Climate Adaptation Vulnerability
Assessment Memorandum Account (CAVAMA) Pursuant to Decision (D.) 20-08-046, *available at*
<https://tariff.sdge.com/tm2/pdf/2907-G.pdf>.

⁷ SB 1383 is part of an overall effort by California to reduce climate pollutants, which includes
methane. SB 1383 required, among other things, that the CPUC implement "at least 5 dairy
biomethane pilot projects to demonstrate interconnection to the common carrier pipeline system."

1 risk and increase safety is evident. For example, as part of the Dig-in Chapter for RAMP⁸,
2 optical pipeline monitoring technology is listed as a control with the potential to provide an early
3 warning system to reduce the risk of damage or an incident on the pipeline by detecting
4 unauthorized construction activity or encroachments on the pipeline. The expertise and
5 oversight for optical pipeline monitoring resides within the Gas Engineering department,
6 providing a critical role in the implementation of the control. Another tangible example is
7 Odorization, a control listed within the Incident Related to the High-Pressure System RAMP
8 Chapter.⁹ Odorization is required to provide natural gas a readily detectable smell. This activity
9 is needed to uphold public safety by providing a warning system should there be a gas leak. The
10 guidance and oversight for gas odorization is provided by the Engineering Analysis Center
11 within the Gas Engineering department. The interrelation of Gas Engineering within the
12 mitigations and controls with the RAMP Chapters can be seen in the examples listed above but is
13 a prominent theme for other controls and mitigations.

14 **III. CAPITAL**

15 The driving philosophy behind this capital expenditure plan is to provide safe, resilient
16 and reliable delivery of natural gas to customers at a reasonable cost. These investments also
17 enhance the efficiency and responsiveness of our gas operations and maintain compliance with
18 applicable and increasing regulatory and environmental regulations. The capital described in this
19 chapter of my testimony covers capital expenditures estimated for SDG&E's operations and
20 Engineering capital investments related to supervision and engineering capital pool of overheads.

⁸ Application (A.) 21-05-011, SDG&E 2021 Risk Assessment and Mitigation Phase (RAMP) Report, SDG&E-Risk-7, Excavation Damage (Dig-In) on the Gas System, *available at* <https://www.sdge.com/sites/default/files/regulatory/SDGE%20RAMP%20Risk-7%20Excavation%20Damage%20%28Dig-in%29%20on%20the%20Gas%20System%205-17-21.pdf>.

⁹ A.21-05-011, SDG&E 2021 RAMP Report, *available at* <https://www.sdge.com/proceedings/2021-sdge-ramp-report>.

A. Capital Expenditures Summary of Costs

**TABLE MM-2
Capital Expenditures Summary of Costs**

GAS ENGINEERING (In 2021 \$)				
Categories of Management	2021 Adjusted-Recorded	Estimated 2022 (000s)	Estimated 2023 (000s)	Estimated 2024 (000s)
A. Supervision and Engineering Overhead Pool	336	295	295	295
Total	336	295	295	295

1. Description

The forecast for Budget Code 903 for 2022, 2023, and 2024 are \$0.295M, \$ 0.295M, and \$0.295M, respectively. This Budget Code provides a pool for Supervision and Engineering charges that will be reassigned to the various budget categories on a direct cost basis. This Budget Code continues an established accounting procedure for making charges for certain overheads, on a direct cost basis, to specific budget categories.

2. Forecast Method

The forecast method developed for this cost category is the five-year average of recorded costs in this budget code. The nature of the work performed under this organization has proven to be consistent over time, as evidenced by trending of historical record costs in this Budget Code while accounting for adjustments needed to support changes in federal and state regulations or recommendations, for example, implementing stamping of design drawings by professionally licensed engineers, increase of safety activities or development of new processes and procedures to improve safety.

3. Cost Drivers

The underlying cost drivers for this capital project relate to the cost of labor assigned to the planning and engineering of capital projects and the increasing complexity of such projects. The costs are associated with the continual day-to-day activity of maintenance and construction.

IV. CONCLUSION

The SDG&E capital forecast relies principally on five-year averages. As a result, SDG&E requests that the Commission adopt capital expenditure forecasts of \$295,000 each year for the years 2022, 2023, and 2024. In summary, these forecasts reflect sound judgment and

1 represent the impact of increased regulatory requirements of recommendations issued over the
2 last few years by the PHMSA and the CPUC to enhance safety continually. The Commission
3 should adopt the forecasted expenditures discussed in this testimony because they are prudent
4 and reasonable.

5 This concludes my prepared direct testimony.

1 **V. WITNESS QUALIFICATIONS**

2 My name is Maria T. Martinez. My business address is 555 W. Fifth Street, Los
3 Angeles, California, 90013. I am employed by SoCalGas as the Gas Engineering Director for
4 SoCalGas and SDG&E. In this position, I am responsible for providing centralized program
5 support for a variety of engineering disciplines, technical expertise on equipment and procedures,
6 company policies, material quality, and material specification for Transmission, Storage, and
7 Distribution. To accomplish this responsibility, I manage an organization of over 350 employees
8 with varying degrees of technical expertise. In addition, I possess a broad background in
9 engineering and natural gas pipeline operations with twenty years of experience with SoCalGas.
10 I have held numerous positions with increasing responsibilities within Pipeline Integrity, Gas
11 Distribution Operations and Gas Transmission Operations. I have held my current position as
12 Director of Gas Engineering since December 2020.

13 I hold a Bachelor of Science degree in Mechanical Engineering from California State
14 Polytechnic University, Pomona. I hold a California Professional Engineering License in
15 mechanical engineering from the state of California.

16 I have previously testified before the Commission in the previous two GRC.

APPENDIX A

GLOSSARY OF TERMS

APPENDIX A
Glossary of Terms

Acronym	Definition
CPUC	California Public Utilities Commission
O&M	Operations and Maintenance
PHA	Process Hazard Analysis
PHMSA	Pipeline and Hazardous Materials Safety Administration
PSEP	Pipeline Safety Enhancement Plan
RAMP	Risk Assessment Mitigation Phase
SB	Senate Bill
SDG&E	San Diego Gas and Electric Company
SoCalGas	Southern California Gas Company
TY	Test Year

SDG&E 2024 GRC Testimony Revision Log –August 2022

Exhibit	Witness	Page	Line or Table	Revision Detail
SDG&E-07	Maria Martinez	MTM-ii	Summary Table	Revised Table
SDG&E-07	Maria Martinez	MTM-1	Table MM-1	Revised Table
SDG&E-07	Maria Martinez	MTM-5	Table MM-2	Revised Table