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SOUTHERN CALIFORNIA GAS COMPANY (U 904 G)
PREPARED DIRECT TESTIMONY OF JESSE S. ARAGON
(COMPANY RISK)

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

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TABLE OF CONTENTS

I. INTRODUCTION	1
II. BUSINESS RISK	3
A. Overview	3
B. Litigation Risk.....	4
C. Insurance Risk	6
D. Construction Risk.....	8
E. Operational and Political Risk (Electrification, Decarbonization).....	11
F. Aliso Canyon Well Leak Incident	14
G. Commission’s Questions (Business Risk).....	16
III. FINANCIAL RISK	18
A. Discussion.....	18
B. Commission’s Questions (Financial Risk).....	19
IV. REGULATORY RISK	20
A. Discussion.....	20
B. Commission’s Questions (Regulatory Risk).....	23
V. CONCLUSION.....	26
VI. WITNESS QUALIFICATIONS	27

APPENDIX A: California Energy IOUs

APPENDIX B: National Proxy Utilities

APPENDIX C: Non-Utility Companies

APPENDIX D: Regulatory Jurisdictions

APPENDIX E: 10K Annual Report (Year Ending 2018) Excerpts

APPENDIX F: Test Year 2019 General Rate Case Testimony Excerpts

APPENDIX G: March 27, 2019 Investor Day (SoCalGas) Presentation Excerpts

1 **SOUTHERN CALIFORNIA GAS COMPANY**
2 **PREPARED DIRECT TESTIMONY OF JESSE S. ARAGON**
3 **(COMPANY RISK)**

4 **I. **INTRODUCTION****

5 My testimony presents a discussion of the various risks that Southern California
6 Gas Company (SoCalGas) considered when preparing its Cost of Capital application for
7 Test Year 2020. This “Company Risk” testimony supports the capital structure
8 proposals contained in Exhibit SCG-02 (Gonzalez) and the Return on Equity proposal
9 contained in Exhibit SCG-04 (Morin).

10 In the context of this Cost of Capital analysis, the risks that are most relevant are
11 the types of risk that impact the utility’s financial profile, as viewed by the investment
12 community (e.g., rating agencies, investors), as well as company-specific risks that
13 SoCalGas is most qualified to identify and assess. I identify and discuss three broad
14 categories of risk: (1) business risk, (2) financial risk, and (3) regulatory risk.

15 The California Public Utilities Commission’s (Commission) prior Cost of Capital
16 decisions recognize the principles for setting a fair rate of return, as established by the
17 United States Supreme Court in the Bluefield and Hope cases.¹ The Bluefield decision
18 sets forth the standard for measuring just and reasonable rates:

19 A public utility is entitled to such rates as will permit it to earn a return
20 upon the value of the property which it employs for the convenience
21 of the public equal to that generally being made at the same time and

¹ See Decision (D.) 12-12-034, *mimeo*, p. 17-18. See also D.07-12-049, *mimeo*, p. 9.

1 in the same general part of the country on investments in other
2 business undertakings which are attended by corresponding risks
3 and uncertainties . . . The return should be reasonably sufficient to
4 assure confidence in the financial soundness of the utility, and should
5 be adequate, under efficient and economical management, to
6 maintain and support its credit, and enable it to raise the money
7 necessary for the proper discharge of its public duties.²

8 The Hope decision reinforces the financial soundness and capital attraction
9 principles of the Bluefield decision:

10 From the investor or company point of view it is important that there
11 be enough revenue not only for operating expenses but also for the
12 capital costs of the business. These include service on the debt and
13 dividends on the stock . . . By that standard the return to the equity
14 owner should be commensurate with the returns on investments in
15 other enterprises having corresponding risks. That return, moreover,
16 should be sufficient to assure confidence in the financial integrity of
17 the enterprise, so as to maintain its credit and attract capital.³

18 These cases support the premise that a utility's authorized Cost of Capital should
19 sufficiently account for the utility's risks and instill investor confidence, as the utility
20 competes for funds to carry out its obligation to safely and reliably serve its customers
21 and the public at large. Capital markets determine the price of investor capital based on

² Bluefield Water Works Co. v. Public Serv. Comm'n, 262 U.S. 679, 692 (1923).

³ Federal Power Comm'n v. Hope Natural Gas Co., 320 U.S. 591, 603 (1944).

1 the riskiness to the borrower in relation to other borrowers. Because investors have a
2 significant array of investment options, a utility such as SoCalGas must compete for and
3 attract private funds by offering potential investors with the opportunity of earning a
4 return on investment that is equal to the potential returns offered by other investments
5 of comparable risk. A strong Cost of Capital (and Rate of Return) positions the utility to
6 attract that capital.

7 **II. BUSINESS RISK**

8 **A. Overview**

9 I use the term “business risk” to describe the risks that SoCalGas is exposed to
10 in its daily operations, which injects uncertainty to the anticipated returns for investors.
11 Business risk pertains to new uncertainties resulting from competition and the economy.
12 An increase in business risk can be caused by a variety of events that include capital
13 investments, electric procurement, and catastrophic events. Each of these business
14 risks overlap into financial and regulatory risk.⁴ In terms of attracting capital, the greater
15 the level of business risk, the more investors will require in terms of an opportunity to
16 earn a return, to compensate for the assumption of that risk. I discuss specific types of
17 business risk to which SoCalGas, as a regulated utility in California, and a gas-only
18 utility serving over 20 million consumers, is exposed.

19 The primary business risks are litigation and insurance risk; construction risk; and
20 risk associated with the changes in energy policy within California.
21

⁴ See D.12-12-034, *mimeo*, p. 30.

1 **B. Litigation Risk**

2 The potential for adverse outcomes in litigation is a business risk that SoCalGas
3 has identified and disclosed in its latest (year-end 2018) 10-K Annual Report (10-K).⁵
4 While every company has litigation risk, there are several aspects of SoCalGas’
5 business risk profile that are noteworthy.

6 SoCalGas operates in one of the most litigious regions in the country. In fact,
7 California consistently ranks among the top for total number of civil cases litigated,
8 being fourth in 2017.⁶ Litigation increases operating expenses and each incident
9 carries a high degree of uncertainty and risk for SoCalGas. SoCalGas is dedicated to
10 the safe and reliable operation of its system; however, it still is exposed to a greater
11 level of litigation risk based on the nature of its operations and its vast service territory
12 relative to other gas-only peers because of the litigious environment in California.

13 In addition to California’s litigious environment, SoCalGas’ litigation risk is
14 exacerbated by California’s application of the legal doctrine of “inverse condemnation”
15 to investor-owned utilities (IOUs). California courts have held that a utility may be held
16 strictly liable under the inverse condemnation doctrine for damage to private property
17 when the source is a utility facility.⁷ As I understand this doctrine, even if a utility is in
18 full compliance with relevant safety regulations and/or there is no proof of negligence, if
19 utility equipment or facilities start a fire, for example, the utility may be held strictly liable

⁵ See Form 10-K, Annual Report for Fiscal Year Ended December 31, 2018 (February 26, 2019). Excerpts provided in Appendix E.

⁶ See <http://www.courtstatistics.org>.

⁷ See *Barham v. Southern California Edison Co.*, 74 Cal. App. 4th 744, 752 (1999) (“The fundamental policy underlying the concept of inverse condemnation is to spread among the benefiting community any burden disproportionately borne by a member of that community, to establish a public undertaking for the benefit of all.”).

1 for resulting damages, even where the damage results from third party negligence or
2 actions. In addition, successful inverse condemnation plaintiffs are entitled to attorneys'
3 fees and pre-judgment interest, which add to the total litigation cost.

4 Recent events in California illustrate the major risk for utilities due to inverse
5 condemnation associated with wildfires. Pacific Gas and Electric Company (PG&E) filed
6 for Chapter 11 bankruptcy protection based, at least in part, on the risk and potential
7 liability from wildfires.⁸ Standard & Poor's (S&P), Moody's, and Fitch recently
8 downgraded the credit ratings of Southern California Edison Company (SCE) and San
9 Diego Gas & Electric Company (SDG&E) due to inverse condemnation associated with
10 wildfires, and the Commission's recent decisions denying cost recovery for wildfire-
11 related claims and damages.⁹ While SoCalGas is not an electric utility and has
12 therefore not been directly involved with wildfires that have been related to electric
13 infrastructure, SoCalGas is not free from this risk.

14 A Fitch report states, "SoCalGas is subject to contagion risk from its utility
15 affiliate, San Diego Gas and Electric . . . which carries higher operating risks, as its

8

http://www.pgecorp.com/news/press_releases/Release_Archive2019/190129press_release.shtml.

⁹ See *Southern California Edison Company's (U338-E) Notice of Ex Parte Communication* (March 11, 2019); SCE email to the Commissioners and official service list for A.12-04-015 et al. (with publicly disclosed attachment) (January 25, 2019); SCE email to the Commissioners and official service list for A.12-04-015 et al. (with publicly disclosed attachments); *Written Ex Parte Communication by San Diego Gas & Electric Company* (served to official service list for A.12-04-015 et al. by email and including publicly disclosed attachment) (March 6, 2019); and, *Written Ex Parte Communication by San Diego Gas & Electric Company* (served to official service list for A.12-04-015 et al. by email and including publicly disclosed attachments) (January 23, 2019).

1 service territory is prone to wildfires.”¹⁰ Fitch further states, “[n]evertheless, any further
2 meaningful deterioration of regulatory framework, accompanied with imminent and
3 substantial financial loss at SDG&E could negatively affect the ratings of Sempra and
4 SoCalGas.”¹¹ S&P indicated it could lower the ratings on SoCalGas if SDG&E is the
5 cause of a significant 2018 fire or if there is a further weakening of SDG&E’s business
6 risk profile, reflecting continued and persistent California wildfires without a longer-term
7 reform to inverse condemnation.¹²

8 SoCalGas’ exposure to litigation risk is therefore of material concern for its
9 business, as it carries the potential for adverse effects on SoCalGas’ cash flows,
10 financial condition, and results of operations.

11 **C. Insurance Risk**

12 In the Test Year 2019 General Rate Case (GRC), the Insurance witness area
13 provided evidence of the various challenges related to obtaining insurance.¹³ In the
14 GRC, evidence was presented that:

- 15 • SoCalGas (and SDG&E) face limited number of insurance
16 companies willing to write utility insurance;¹⁴

¹⁰ Source: Fitch, “Southern California Gas Company,” (May 8, 2018).

¹¹ Source: Fitch, “Fitch Downgrades SDG&E’s LT IDR to “A-”; Outlook Stable,” (September 13, 2018).

¹² Source: S&P, *Ratings Direct*, “Southern California Gas Company Ratings Affirmed; Stand-Alone Credit Profile Revised to “a+”; Outlook Remains Negative,” *Ratings Direct* (October 30, 2018).

¹³ See A.17-10-007/008 (cons.), Exhibit SCG-29/SDG&E-27, SoCalGas/SDG&E Direct Testimony of Neil K. Cayabyab (Corporate Center – Insurance) (October 6, 2017). Insurance is acquired by Sempra Energy on behalf of its subsidiary utilities. Excerpts provided in Appendix F.

¹⁴ See *Id.* at NKC-15.

- 1 • California utilities can be held strictly liable for damages caused by
2 their facilities (*i.e.*, inverse condemnation doctrine);¹⁵
- 3 • because of California’s inverse condemnation doctrine, insurers
4 require a higher premium than in other states with similar exposures,
5 or they may refuse to provide insurance coverage at all;¹⁶
- 6 • Sempra Energy met with over 90 different insurance companies to
7 review risk mitigation strategies;¹⁷
- 8 • many underwriters expressed concerns with the California legal
9 environment (particularly with respect to inverse condemnation);¹⁸
- 10 • underwriters expressed concerns with their potential exposure to the
11 2017 catastrophic losses including wildfires, floods, and hurricanes,
12 and their experience that claims costs in California are higher than in
13 other states;¹⁹
- 14 • according to one benchmarking analysis, California ranks in the
15 highest band of loss cost states based on a particular indicator (*i.e.*,
16 average state loss rates), and is identified as a very unfavorable high
17 cost state;²⁰

¹⁵ See *Id.*

¹⁶ See *Id.*

¹⁷ See A.17-10-007/008, Exhibit SCG-220/SDG&E-227, SoCalGas/SDG&E Rebuttal Testimony of Neil K. Cayabyab (Corporate Center – Insurance) (June 18, 2018), p. NKC-6 to NKC-7. Excerpts provided in Appendix F.

¹⁸ See *Id.* at NKC-7.

¹⁹ See *Id.*

²⁰ See *Id.* at Appendix A, Marsh Workers’ Compensation and General Liability Heat Map.

- according to that same benchmarking analysis, California ranks in the highest band of loss cost states based on a particular indicator (*i.e.*, average ISO rates for selected premises risk class codes), and is identified as a highest cost state.²¹

In the GRC, which is pending before the Commission, SoCalGas is seeking a revenue requirement to cover forecasted insurance costs, as well as a balancing account mechanism to allow for incremental cost recovery for unforeseen costs. These proposals are being contested, and it is uncertain whether the Commission will grant the requested relief. Regardless of the outcome, the existence of risk associated with insurance (*i.e.*, the ability to procure adequate levels of coverage, cost of insurance premiums) remains an ongoing business concern for SoCalGas.

D. Construction Risk

The term “construction risk” refers to the financial and operating risks caused by the magnitude and nature of a company’s capital activities. To provide safe and reliable service to its customers, SoCalGas continues to undertake investments to maintain and upgrade its existing facilities.

As disclosed in its March 27, 2019 Investor Day Presentation, SoCalGas’ current five-year capital plan (2019 – 2023) is estimated to require approximately \$6.1 to \$6.8 billion of expenditures for infrastructure investments and system upgrades.²² For example, SoCalGas also has a substantial plan to address pipeline safety through its Pipeline Safety Enhancement Plan (\$1.1 to \$1.2 billion). Capital investments in the

²¹ See *Id.*

²² See Appendix G.

1 area of transmission include normal base business activities and the Transmission
2 Integrity Management Program (\$1.5 to \$1.7 billion). Distribution activities include base
3 business activities, the Mobilehome Park Program, and the Distribution Integrity
4 Management Program (\$2.3 to \$2.5 billion). Capital investments are also expected in
5 the area of Storage for base business and the Storage Integrity Management Program
6 (\$0.5 to \$0.6 billion). Lastly, there are investments planned that impact multiple
7 operational areas, such as natural gas leak abatement program and information
8 technology (\$0.7 to \$0.8 billion).

9 In short, the company's overall capital expenditure program for its natural gas
10 business will require over \$6.5 billion of financing over the next five years for new utility
11 infrastructure investments. To place that number in proper perspective, SoCalGas'
12 common equity balance is approximately \$4.2 billion, and its total capitalization base is
13 approximately \$7.7 billion. In other words, SoCalGas expects to spend an amount that
14 exceeds its entire common equity ownership capital by nearly 155% and increase its
15 total capitalization base over the next five years by 84%. SoCalGas must continue to
16 compete for new capital funding, not only with other utilities, but also with the growing
17 investments in global markets.

18 The financial community recognizes the risks associated with rising costs needed
19 to undertake such significant capital investments. From a credit perspective, the
20 additional pressure on cash flows associated with high levels of capital expenditures
21 exert corresponding pressure on credit metrics and, therefore, credit ratings. Financial
22 rating agencies perceive SoCalGas' planned capital investments as a business risk,

1 which could potentially impair SoCalGas' credit rating, and thus increase the cost of
2 capital.

3 For example, in its October 30, 2018 rating of SoCalGas, S&P acknowledged
4 that the risks associated with SoCalGas' capital investment plans, reporting: "we expect
5 financial measures to reflect the middle of the range for the financial risk profile
6 category. Specifically, we expect FFO to debt to marginally weaken to about 17%."²³
7 S&P further states, "the modestly weaker expectations reflect continued robust capital
8 spending, tax reform, and marginally increased dividends. As a result, we revised the
9 comparable ratings analysis modifier to neutral from positive, consistent with our
10 expectations for marginally weaker financial measures that we will more consistently
11 reflect the middle of the range for the financial risk profile category."²⁴ As discussed in
12 the Financial Risk section, SoCalGas will continue to manage the financial risk
13 associated with its planned capital projects through its capital structure.

14 Moreover, in today's political climate, where some California lawmakers, public
15 officials, and policymakers are promoting the significant reduction or elimination of
16 natural gas (discussed in the next section), the ability for SoCalGas to retain the use of
17 its existing infrastructure or invest in new infrastructure, in furtherance of service and
18 system reliability, is increasingly uncertain. This uncertainty poses a business risk to
19 SoCalGas' planned construction projects.

²³ Source: S&P, "Southern California Gas Company Ratings Affirmed; Stand-Alone Credit Profile Revised to "a+"; Outlook Remains Negative," *Ratings Direct* (October 30, 2018). "FFO" stands for Funds from Operations.

²⁴ *Id.*

1 **E. Operational and Political Risk (Electrification, Decarbonization)**

2 Several law makers, policymakers, and stakeholder groups in California, at the
3 state and local level,²⁵ are focused on developing future policies to reduce or eliminate
4 the use of natural gas. While SoCalGas itself has publicly announced its goal to be the
5 cleanest natural gas utility in North America, through delivering affordable and
6 increasingly renewable energy to its customers,²⁶ there are certain voices in
7 government and in the community that are using California’s environmental policies and
8 mandates as a justification to eliminate gas entirely as an energy source. This creates
9 a significant and undeniable operational risk for SoCalGas – as a gas transmission,
10 distribution, and storage business and the largest local distribution company in the
11 nation – relative to other gas utility peers and energy utilities.

12 As SoCalGas disclosed in its 10-K, “California legislators and stakeholder,
13 advocacy and activist groups have expressed a desire to further limit or eliminate
14 reliance on natural gas as an energy source by advocating increased use of renewable
15 energy and electrification in lieu of the use of natural gas. A substantial reduction or the
16 elimination of natural gas as an energy source in California could have a materially
17 adverse effect on . . . SoCalGas’ . . . cash flows, financial condition and results of
18 operation.”²⁷

²⁵ For example, at the local level, the Mayor of Los Angeles declared on February 12, 2019, “[t]his is the beginning of the end of natural gas at the Los Angeles Department of Water and Power.”

<https://losangeles.cbslocal.com/2019/02/12/la-phase-out-3-natural-gas-plants-replace-clean-energy/>

²⁶ For example, see Appendix G.

²⁷ 10-K at 52.

1 On the legislative front, policies that promote the use of clean energy and clean
2 air continue to gain momentum since the passage of the California Global Warming
3 Solutions Act (Assembly Bill (AB) 32) in 2006. In 2015, California passed the Clean
4 Energy and Pollution Reduction Act of 2015 (Senate Bill (SB) 350). SB 350 establishes
5 a 50% renewable portfolio standard (RPS) goal for electricity procurement by December
6 31, 2030. In addition, SB 350 targets reductions in greenhouse gas emissions to 40%
7 below 1990 levels by 2030 and to 80% below 1990 levels by 2050. Moreover, SB 350
8 accelerates the use of solar, wind, and other renewable resources like biomass and
9 geothermal sources. It also calls for faster transportation electrification activities,
10 doubling energy efficiency targets, and Integrated Resource Plans that detail how
11 emissions will be reduced and how clean energy resources will be used.²⁸

12 Subsequently, SB 100 was enacted on September 10, 2018, which modified the 50%
13 RPS goal for electric procurement to 60% by 2030 and 100% by 2045.²⁹

14 In more recent legislation, SB 1477 (enacted in September 2018), requires the
15 Commission to develop and supervise the administration of the Building Initiative for
16 Low-Emissions Development Program to require gas corporations to provide incentives
17 to eligible applicants for the deployment of near-zero-emission building technologies to
18 significantly reduce the emissions of greenhouse gases from buildings. The legislative
19 analysis provides further context into this legislation, as it argues that the largest source
20 of greenhouse gas emissions from energy use in buildings is related to natural gas
21 consumption. On February 8, 2019, the Commission opened a rulemaking (Order

²⁸ <http://www.energy.ca.gov/sb350/>

²⁹ https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180SB100

1 Instituting Rulemaking (R.) 19-01-011) to begin crafting a policy framework surrounding
2 decarbonization of buildings.

3 While SoCalGas is not addressing these underlying initiatives and policies in this
4 Cost of Capital proceeding, this information is relevant to understanding the significant
5 operational risk SoCalGas faces as a gas-only utility operating in this jurisdiction. The
6 impetus on the part of some legislators and regulators to significantly reduce or
7 eliminate natural gas as an energy source in California poses a clear and direct threat to
8 SoCalGas' business operations and its future business sustainability. This makes
9 California a riskier and more business adverse jurisdiction for a natural gas utility
10 compared to other jurisdictions, and compared to other regulated California utilities.

11 Moody's notes, "[o]ur view that California has a higher degree of political risk
12 than most of the other state jurisdictions in the US considers that utilities face a higher
13 level of scrutiny from both the media and the public such that issues have the potential
14 to be contentious. The state's ambitious energy policy goals on clean energy, efficiency
15 and pipeline safety, as well as methane leak reduction (SoCalGas's planned
16 investments: \$234 million over two years; estimated leakage reduction by around 14%
17 by 2020) place a high level of demand on the utilities."³⁰

18 In this environment, SoCalGas must compete for capital funding and make
19 necessary, significant capital investments in furtherance of its continuing obligation to
20 serve customers safely, reliably, and at reasonable rates. This is a unique operational
21 challenge for SoCalGas which should be adequately reflected in SoCalGas' authorized
22 Cost of Capital.

³⁰ Source: Moody's, "Credit Opinion: Southern California Gas Company," (November 15, 2018).

1 **F. Aliso Canyon Well Leak Incident**

2 The 2015 well leak incident at the Aliso Canyon storage facility is an additional
3 business risk factor which impacts SoCalGas on several fronts: litigation, insurance,
4 and operational. While the credit rating agencies have not expressed a heightened
5 concern over this incident, primarily due to SoCalGas' insurance coverage, the
6 company has disclosed several ongoing concerns in its 10-K over the potential impacts
7 stemming from this incident, as summarized here:

- 8 • the costs of defending against the related civil and criminal lawsuits and
9 cooperating with related investigations, and any damages, restitution,
10 and civil, administrative and criminal fines, costs and other penalties, if
11 awarded or imposed could be significant, and to the extent not covered
12 by insurance (including any costs in excess of applicable policy limits),
13 if there were to be significant delays in receiving insurance recoveries,
14 or if the insurance recoveries are subject to income taxes while the
15 associated costs are not tax deductible, such amounts could have a
16 material adverse impact on SoCalGas' cash flows, financial condition
17 and results of operation.³¹
- 18 • there can be no assurance that we will be successful in obtaining
19 additional insurance recovery for these costs, and to the extent we are
20 not successful in obtaining coverage or these costs exceed the amount

³¹ See 10-K at 91.

1 of our coverage, such costs could have a material adverse effect on
2 SoCalGas' cash flows, financial condition and results of operations.³²

3 In addition to the litigation and insurance risk, the Company faces operational
4 risks with respect to the use of the facility itself. Aliso Canyon is the largest of
5 SoCalGas' storage fields and is located in the Los Angeles Basin, which makes it ideally
6 located to serve its customers. In February 2017, the Commission opened an
7 investigatory proceeding pursuant to SB 380 (Order Instituting Investigation (I.) 17-02-
8 002) to determine the feasibility of minimizing or eliminating the use of the Aliso Canyon
9 natural gas storage facility while still maintaining energy and electric reliability for the
10 region, and just and reasonable rates.³³ This is an active and ongoing proceeding;
11 however, the potential outcomes create uncertainty over the future use of SoCalGas'
12 largest storage facility.

13 SoCalGas disclosed that, "[i]f the Aliso Canyon natural gas storage facility were
14 to be permanently closed, or if future cash flows were otherwise insufficient to recover
15 its carrying value, it could result in an impairment of the facility and significantly higher
16 than expected operating costs and/or additional capital expenditures, and natural gas
17 reliability and electric generation could be jeopardized."³⁴ SoCalGas noted that this
18 could have a materially adverse effect on results of operations, cash flows, and financial
19 condition.³⁵ The rating agencies have taken notice. According to Moody's,

³² See *Id.* at 110.

³³ See I.17-02-002, pp. 1-2.

³⁴ 10-K at 48.

³⁵ See *Id.*

1 [o]n a negative note, our assessment also factors in some uncertainties
2 associated with a leak incident at the Aliso Canyon gas storage (October
3 2015). The results of the root cause investigation are still pending. Last
4 year, the CPUC opened regulatory proceedings to assess the feasibility
5 of minimizing or eliminating the use of the gas storage facility.³⁶

6 Furthermore, according to Fitch, “[o]ther credit concerns include . . . the potential
7 financial impact from lawsuits and if the facility is ordered to close permanently.”³⁷

8 My testimony is not addressing the underlying Aliso Canyon related issues, as
9 those are being addressed in other forums. However, the uncertainty and potential
10 financial exposure stemming from the Aliso Canyon incident do represent a unique and
11 additional business risk specific to SoCalGas, relative to its peer group. This risk should
12 likewise be adequately factored in SoCalGas’ authorized Cost of Capital.

13 **G. Commission’s Questions (Business Risk)**

14 In D.17-07-005, the Commission directed the utilities to address eight specific
15 questions in testimony. Question 1 states:

16 How does the utility’s level of business risk compare to other utilities
17 nationally and to other California utilities, and to non-utility
18 benchmarks? Include separate comparisons for vertically integrated
19 and non-vertically integrated utilities. How has this level changed
20 since the test year 2013 Cost of Capital application?

³⁶ Source: Moody’s, “Credit Opinion: Southern California Gas Company,” (November 15, 2018).

³⁷ Source: Fitch, “Southern California Gas Company,” (May 8, 2018).

1 When assessing an IOU's relative risk, the Commission has previously utilized
2 an approach that analyzes six factors: 1) proposed equity ratios; 2) bond ratings; 3)
3 long-term interest coverage; 4) Value Line beta; 5) Value Line safety ratings; and 6)
4 Value Line financial strength ratings. When adopting this relative risk assessment
5 approach, the Commission stated “[w]e believe there is merit in the overall approach...
6 in ranking the relative risk of the utilities. Despite the problems associated with any one
7 risk indicator, it is noteworthy that six separate indicators were used.”³⁸

8 As shown in Appendix A, among the major California energy IOUs, SoCalGas
9 has operated its business well and has maintained strong financial metrics. Over time,
10 as SoCalGas funded its large capital investment plan, its metrics trend has aligned
11 more closely with the other IOUs.

12 On a national level, SoCalGas utilizes the same risk indicators, as shown in
13 Appendix B.³⁹ Based on this data, I do not believe any noteworthy conclusions can be
14 drawn. On the one hand, SoCalGas' bond ratings and long-term interest coverage are
15 higher than its natural gas proxy group. However, beta and safety ratings are higher
16 than its natural gas proxy group.⁴⁰

17 The comparison of SoCalGas' business risk to those faced by non-utility
18 companies would not yield meaningful data or analyses upon which the Commission
19 can assess the reasonableness of SoCalGas' Cost of Capital proposals. Non-utility

³⁸ See D.89-11-068, *mimeo*, pp. 58-59. See also D.92-11-047, *mimeo*, p. 90.

³⁹ The equity ratio pertains to the capital structure, which is addressed in Exhibit SCG-02 (Gonzalez).

⁴⁰ Beta and safety ratings are shown at the parent company level.

1 companies are not suitable proxies for utilities. The Commission expressed this view in
2 D.07-12-049: “[a] proxy, by common definition, is a substitute. Hence, companies
3 selected for a proxy of a utility should have characteristics similar to the utility that the
4 companies are selected to proxy.”⁴¹ The Commission reaffirmed this view of non-utility
5 proxy groups in D.12-12-034 stating, “non-utility earnings are dependent on the extent
6 of competition and ability to price products or services at rates a buyer is willing to pay
7 while maintaining a competitive edge in comparison to utility earnings being dependent
8 on a fair return on investments with reasonable pricing of utility services, irrespective of
9 what a buyer is willing to pay for a product or service for which they may have no
10 alternative.”⁴² Notwithstanding, SoCalGas attempted to retrieve some data on non-
11 utility companies to respond to this question (see Appendix C).

12 **III. FINANCIAL RISK**

13 **A. Discussion**

14 Financial risk, a function of the amount of debt in a utility’s capital structure,⁴³ is
15 the uncertainty arising from increased reliance on debt financing and the associated
16 fixed obligation payments required of debt. The more debt a company uses, the greater
17 the financial risk to both shareholders and debt holders. A rising debt-to-equity ratio
18 implies that a company has growing fixed obligations to holders of securities that have
19 precedence to revenues, and as that obligation increases, more revenues must be
20 committed to these payments, thus increasing risk to the company’s initial debt holders.

⁴¹ D.07-12-049, *mimeo*, p. 13.

⁴² D.12-12-034, *mimeo*, p. 22.

⁴³ See *Id.* at 29.

1 Similarly, the larger the revenues committed to fixed obligation payments, the greater
2 the financial risk exposure to the common shareholders, as they are entitled only to
3 revenues available after all fixed obligation payments are satisfied.

4 Credit rating agencies use credit metrics such as interest coverage ratios and
5 funds from operations as a percent of total debt as a means to quantify financial risk.
6 Together with their assessment of business risk, the major credit rating agencies use
7 these credit metrics to help guide the credit ratings they assign.

8 SoCalGas is managing financial risk through its capital structure, and has over
9 the past several years increased levels of recorded Common Equity relative to Long-
10 Term Debt and Preferred Equity. As addressed in more detail in Exhibit SCG-02
11 (Gonzalez), SoCalGas is proposing an authorized capital structure for Test Year 2020
12 that is more aligned with its actual capital structure, and one that the company can
13 manage and maintain throughout the next Cost of Capital cycle.

14 **B. Commission's Questions (Financial Risk)**

15 In D.17-07-005, Question 2 states:

16 How does the utility's level of financial risk compare to other utilities
17 nationally, to other California utilities, and to non-utility benchmarks?

18 Include separate comparisons for vertically integrated and non-
19 vertically integrated utilities. How has this level changed since the
20 test year 2013 Cost of Capital application?

21 Similar to the business risk comparison, SoCalGas attempted to analyze the six
22 factors. As shown in Appendix A, among the major California energy IOUs, SoCalGas
23 has operated its business well and maintained strong financial metrics. Over time, as

1 SoCalGas funded its large capital investment plan, its metrics trend has aligned more
2 closely with the other IOUs. As financial risk is largely associated with capital structure,
3 please also refer to the information presented in Exhibit SCG-02 (Gonzalez).

4 On a national level, I analyzed the data shown in Appendix B and was again
5 unable to draw any noteworthy conclusions. Furthermore, based on my analysis of data
6 for non-utility companies (see Appendix C), I was unable to draw any meaningful
7 comparisons, as these companies are not proxy-quality.

8 **IV. REGULATORY RISK**

9 **A. Discussion**

10 Regulatory risk refers to the factor investors consider when assessing which
11 companies or jurisdictions offer returns commensurate with the regulatory environment.
12 I discuss regulatory risk in the context of how the California regulatory environment is
13 perceived by the market relative to other jurisdictions. Historically, California was
14 viewed as having a supportive regulatory environment. However, this perception
15 appears to have changed since the last Cost of Capital application was filed.

16 The investment community focuses on timely and predictable results when
17 assessing investment options across all companies and states. They also consider
18 stability in regulations based on whether precedent is consistently upheld, whether
19 decisions are rendered in a timely fashion, and whether final decisions are indeed final.
20 To an investor, uncertainty equates to risk. In their analysis of utility debt and
21 assessment of utility credit worthiness, credit rating agencies and investors place
22 considerable emphasis on the regulatory environment in which companies operate.
23 S&P notes that the regulatory framework/regime's influence is of critical importance

1 when assessing regulated utilities' credit risk because it defines the environment in
2 which a utility operates and has a significant bearing on a utility's financial
3 performance.⁴⁴

4 According to Moody's, "[f]or rate-regulated utilities, which typically operate as a
5 monopoly, the regulatory environment and how the utility adapts to that environment are
6 the most important credit considerations."⁴⁵ To assess a jurisdiction's regulatory
7 environment, investors and credit agencies analyze numerous factors, such as ROE
8 adequacy, cost recovery, regulatory lag, and regulatory certainty and predictability.

9 In the prior Cost of Capital application, SoCalGas discussed these regulatory
10 risks at some length. In this application, I want to highlight the broader picture of
11 regulatory risk, and the perception issue. I believe recent credit rating agency
12 discussions on SoCalGas will provide insight into the changing perception from the
13 investment community of California's regulatory environment. Moody's states that it
14 considers the utility's relationship with the Commission as constructive and views the
15 Commission as a credit-supportive jurisdiction.⁴⁶ However, Moody's also expresses
16 concerns about California in the same report, including:

- 17 • [t]he rating could experience negative momentum if there is a
18 deterioration in the utility's relationship with the CPUC and/or credit
19 supportiveness of the California regulatory environment;⁴⁷

⁴⁴ Source: S&P, "Key Credit Factors for the Regulated Utilities Industry," *Ratings Direct* (June 5, 2018).

⁴⁵ Source: Moody's, "Regulated Electric and Gas Utilities," (June 23, 2017).

⁴⁶ Source: Moody's, "Credit Opinion: Southern California Gas Company," (November 15, 2018).

⁴⁷ *Id.*

- 1 • [a] downgrade is also likely if the 2019 General Rate Case results in
2 inadequate rate relief or higher leverage that weakens SoCalGas'
3 credit metrics such that its CFO pre-W/C to debt ratio falls below 22%
4 on a sustained basis;⁴⁸ and
- 5 • the credit supportiveness of the California legislative and regulatory
6 framework, compared to other environments, has weakened amid
7 rising wildfire risk in the state. Despite recent legislativ[e]
8 improvements, all of California IOUs remain exposed to the
9 application of a strict liability standard under inverse condemnation.⁴⁹

10 Fitch states that SoCalGas' rating and outlook are supported by "a generally
11 supportive California regulation."⁵⁰ However, in a later publication, Fitch states,
12 "[n]evertheless, any further meaningful deterioration of regulatory framework,
13 accompanied with imminent and substantial financial loss at SDG&E could negatively
14 affect the ratings of Sempra and SoCalGas."⁵¹

15 S&P notes that SoCalGas, "benefits from supportive regulatory mechanisms, "
16 and "has managed regulatory risk better than many peers."⁵² However, like the other
17 rating agencies, S&P raises concerns about inverse condemnation, and uncertainty

⁴⁸ Id.

⁴⁹ Id.

⁵⁰ Source: Fitch, "Southern California Gas Company," (May 8, 2018).

⁵¹ Source: Fitch, "Fitch Downgrades SDG&E's LT IDR to "A-"; Outlook Stable," (September 13, 2018).

⁵² Source: S&P, "Southern California Gas Company Ratings Affirmed; Stand-Alone Credit Profile Revised to "a+"; Outlook Remains Negative," *Ratings Direct* (October 30, 2018).

1 over the Commission’s interpretation of SB 901: “[w]e could lower the rating within the
2 next two years if the CPUC interprets SB 901 in a manner that does not limit the risks to
3 California electric utilities.”⁵³

4 Moody’s also expresses concerns about the regulatory lag and liquidity impact
5 related to PSEP, one of SoCalGas’ largest capital programs. Moody’s states “the
6 recovery of implementation costs of its Pipeline Safety Enhancement Plan (PSEP),
7 which was based on an after-the-fact reasonableness review proceeding, is particularly
8 important. Its incurred costs (capital and O&M) aggregated \$1.3 billion for the 2011-
9 2017 period with planned investments of \$200 million in 2018. As of 30 September
10 2018, the CPUC had completed a reasonableness review of only \$33 million . . . As of
11 30 September 2018, the completion of the review of \$211 million in costs was expected
12 during the 1Q 2019 (previously before year-end 2018), amid some advocacy groups’
13 opposition, a credit negative.”⁵⁴

14 The purpose of highlighting some of the concerns contained in publications from
15 Moody’s, Fitch, and S&P is to show that the rating agencies have raised red flags over
16 California’s regulatory environment, which can be perceived as an increase in
17 regulatory risk since the last Cost of Capital was decided. These risks should be
18 factored when determining SoCalGas’ authorized Cost of Capital for 2020.

19 **B. Commission’s Questions (Regulatory Risk)**

20 In D.17-07-005, Question 3 states:

⁵³ Id.

⁵⁴ Source: Moody’s, “Credit Opinion: Southern California Gas Company,” (November 15, 2018).

1 How does the utility's level of regulatory risk compare to other utilities
2 nationally, to other California utilities, and to non-utility benchmarks?
3 Include separate comparisons for vertically integrated and non-
4 vertically integrated utilities. How has this level changed since the
5 test year 2013 Cost of Capital application?

6 As compared to the other California energy IOUs, the credit rating agency
7 sources that SoCalGas has referenced in this testimony would suggest that all
8 California utilities face similar regulatory risk factors, such that if California is perceived
9 as less credit supportive, it would impact all of the California utilities. On the other hand,
10 I am aware that the electric utilities have experienced varying levels of credit
11 downgrades recently, driven by wildfire risk in conjunction with inverse condemnation.
12 This may be indicative of the electric utilities having a greater perception that California
13 regulation is not as credit supportive.

14 However, SoCalGas has its own unique regulatory risks as a natural gas utility,
15 partially attributable to the regulatory uncertainties associated with regulatory outcomes
16 related to Aliso Canyon related proceedings, but also to outcomes related to efforts
17 such as the building decarbonization rulemaking. Based purely on each IOU's current
18 credit ratings, SoCalGas is maintaining a solid "A" rating, whereas SDG&E, SCE, and
19 PG&E have received credit downgrades. However, as the credit rating agencies have
20 noted, SoCalGas is not immune to the risks that the electric utilities are facing.

21 On a national level, I was not able to retrieve much quantitative analysis readily
22 available or compiled by any source. In Appendix D, I present information that generally
23 ranks jurisdictions based on their level of regulatory supportiveness. In terms of

1 comparing regulatory risk with non-utility companies, this would be a difficult task, as
2 regulatory risk comparisons would only work if non-utility companies were regulated by
3 agencies with the same or similar mandates and authority as public utility commissions.
4 Since I cannot establish that through the data, I can draw no conclusions from that data.

5 Finally, Question 7 states:

6 What, if any, regulatory, tax, policy, legal, technological, or
7 accounting changes since the test year 2013 Cost of Capital
8 applications have occurred that impact the level of risk facing the
9 utility? Provide a qualitative discussion of the impacts of these
10 changes, and support that discussion with quantitative analysis and
11 data to the extent practicable. Please include changes in any
12 relevant jurisdiction.

13 In my section on Business Risk, I address risk associated with inverse
14 condemnation, which is an issue that has received much attention recently due to the
15 California wildfires and the electric utilities' challenges to receiving Commission support
16 for cost recovery. In addition, the Aliso Canyon incident, which I also discuss in that
17 same section of testimony, post-dates the adoption of SoCalGas' Test Year 2013 Cost
18 of Capital. Furthermore, in Exhibit SCG-02 (Gonzalez), the financial risk associated
19 with the Tax Cuts and Jobs Act (TCJA) of 2017 has added incremental risk to
20 SoCalGas since 2013. In addressing this question, SoCalGas' support is qualitative in
21 nature, although SoCalGas refers to independent sources for support.

1 **V. CONCLUSION**

2 SoCalGas respectfully asks the Commission to consider my testimony, and
3 adopt the company's proposed authorized Cost of Capital for Test Year 2020, which
4 represents a Cost of Capital commensurate with SoCalGas' business, financial, and
5 regulatory risks.

6 This concludes my prepared direct testimony.

1 **VI. WITNESS QUALIFICATIONS**

2 My name is Jesse S. Aragon. My business address is 555 W. 5th Street, Los
3 Angeles, CA 90013. I am currently the SoCalGas Director of Financial & Operational
4 Planning where I'm responsible for financial planning; operational budgeting and
5 treasury for all capital, operating expenses, and cashflow. I was appointed to this
6 position in May 2017.

7 I received a Bachelor of Science in Business Administration degree with an
8 emphasis in Accounting from San Diego State University. I am a Certified Public
9 Accountant in the state of California, a member of the American Institute of Certified
10 Public Accountants and the California Society of Certified Public Accountants. I
11 continue to maintain an active status license with practice rights by fulfilling the
12 continuing professional education requirements.

13 I was employed by Considine & Considine, Certified Public Accountants as an
14 auditor and held roles of increasing responsibility such as corporate tax manager. I
15 joined Lennar Partners as an assistant controller for approximately 2 years. In 2006, I
16 joined SDG&E and have held various positions of increasing responsibility at SDG&E
17 and SoCalGas in the Accounting & Finance and Information Technology & Support
18 Services organization(s).

19 I have previously testified before the Commission.

APPENDIX A

California Energy IOUs

Figure 1a
SoCalGas' Presentation of
Key Commission Risk Indicators

	SoCalGas	SDG&E	SCE	PG&E
Equity Ratio	56%*	52%^	48%^	52%^
Bond Rating (Moody's) ¹	A1	Baa1	Baa2	WR
Bond Rating (S&P) ¹	A	BBB+	BBB	D
2018 Long-Term Interest Coverage ¹	10.12	7.95	2.55	-6.64
Value Line Beta ²	0.75	0.75	0.55	0.65
Value Line Safety Rating ²	2	2	3	5
Value Line Financial Strength Rating ²	A	A	B+	C

* Proposed Equity Ratio

^ Current Authorized Equity Ratio

¹ Source: S&P Global Market Intelligence (SNL)

² Source: Value Line January 25, 2019; Parent company information represented

Figure 1b

SoCalGas' Presentation of Key Commission Risk Indicators (Moody's Bond Rating)

Year	Bond Rating (Moody's) ¹			
	SoCalGas	SDG&E	SCE	PG&E
2018	A1	A2	A3	Baa2
2017	A1	A1	A2	A2
2016	A1	A1	A2	A3
2015	A1	A1	A2	A3
2014	A1	A1	A2	A3
2013	A2	A2	A3	A3

¹ Source: 10Ks, Moody's Investors Service, S&P Global Market Intelligence (SNL)

Figure 1c

SoCalGas' Presentation of Key Commission Risk Indicators (S&P's Bond Rating)

Year	Bond Rating (S&P) ¹			
	SoCalGas	SDG&E	SCE	PG&E
2018	A	A-	BBB+	BBB-
2017	A	A	BBB+	A-
2016	A	A	BBB+	BBB+
2015	A	A	BBB+	BBB
2014	A	A	BBB+	BBB
2013	A	A	BBB+	BBB

¹ Source: S&P Global Ratings, S&P Global Market Intelligence (SNL)

Figure 1d

SoCalGas' Presentation of Key Commission Risk Indicators (Long-Term Interest Coverage)

Year	Long-Term Interest Coverage ¹			
	SoCalGas	SDG&E	SCE	PG&E
2018	10.12	7.95	2.55	-6.64
2017	11.51	7.14	6.44	6.66
2016	10.99	8.65	8.10	6.09
2015	13.13	8.32	7.87	5.49
2014	14.09	7.57	8.22	6.76
2013	13.52	6.69	6.72	5.44

¹ Source: S&P Global Market Intelligence (SNL)

Figure 1e

SoCalGas' Presentation of Key Commission Risk Indicators (Value Line Beta)

Quarter	Value Line Beta ¹			
	SoCalGas	SDG&E	SCE	PG&E
2018 Q4	0.75	0.75	0.60	0.65
2018 Q3	0.75	0.75	0.60	0.65
2018 Q2	0.80	0.80	0.60	0.65
2018 Q1	0.80	0.80	0.65	0.65
2017 Q4	0.80	0.80	0.65	0.65
2017 Q3	0.80	0.80	0.60	0.65
2017 Q2	0.80	0.80	0.60	0.65
2017 Q1	0.80	0.80	0.65	0.65
2016 Q4	0.80	0.80	0.65	0.65
2016 Q3	0.80	0.80	0.70	0.65
2016 Q2	0.85	0.85	0.70	0.70
2016 Q1	0.80	0.80	0.70	0.70

¹ Source: Value Line; Parent company information represented

Figure 1f

SoCalGas' Presentation of Key Commission Risk Indicators (Value Line Safety Rating)

Quarter	Value Line Safety Rating ¹			
	SoCalGas	SDG&E	SCE	PG&E
2018 Q4	2	2	2	3
2018 Q3	2	2	2	3
2018 Q2	2	2	2	3
2018 Q1	2	2	2	3
2017 Q4	2	2	2	2
2017 Q3	2	2	2	2
2017 Q2	2	2	2	3
2017 Q1	2	2	2	3
2016 Q4	2	2	2	3
2016 Q3	2	2	2	3
2016 Q2	3	3	2	3
2016 Q1	3	3	2	3

¹ Source: Value Line; Parent company information represented

Figure 1g

SoCalGas' Presentation of Key Commission Risk Indicators (Value Line Financial Strength Rating)

Quarter	Value Line Financial Strength Rating ¹			
	SoCalGas	SDG&E	SCE	PG&E
2018 Q4	A	A	B++	B
2018 Q3	A	A	A	B
2018 Q2	A	A	A	B
2018 Q1	A	A	A	B
2017 Q4	A	A	A	B++
2017 Q3	A	A	A	B++
2017 Q2	A	A	A	B+
2017 Q1	A	A	A	B+
2016 Q4	A	A	A	B+
2016 Q3	A	A	A	B+
2016 Q2	B++	B++	A	B+
2016 Q1	B++	B++	A	B+

¹ Source: Value Line; Parent company information represented

APPENDIX B

National Proxy Utilities

Figure 2a

SoCalGas' Presentation of Key Commission Risk Indicators (Moody's Bond Rating)

Bond Rating (Moody's) ¹						
Company ²	2018	2017	2016	2015	2014	2013
ATO	A2	A2	A2	A2	A2	Baa1
NI	Baa2	Baa2	Baa2	Baa2	Baa2	Baa3
NJR	Aa2	Aa2	Aa2	Aa2	Aa2	Aa3
NWN	A3	A3	A3	A3	A3	A3
OGS	A2	A2	A2	A2	A2	N/A
SJI	No Rating	No Rating	No Rating	No Rating	No Rating	No Rating
SR	Baa2	Baa2	Baa2	Baa2	Baa2	Baa2
SWX	Baa1	Baa1	Baa1	A3	A3	Baa1
UGI	WR	WR	WR	WR	WR	WR
Proxy Average	A3	A3	A3	A3	A3	Baa1
SoCalGas	A1	A1	A1	A1	A1	A2
SoCalGas vs Proxy	Higher	Higher	Higher	Higher	Higher	Higher

¹ Source: 10Ks, Moody's Investors Service, S&P Global Market Intelligence (SNL)

² All of the proxy companies are determined as Non-Vertically Integrated at the parent level

Figure 2b
SoCalGas' Presentation of
Key Commission Risk Indicators (S&P's Bond Rating)

Bond Rating (S&P's) ¹						
Company ²	2018	2017	2016	2015	2014	2013
ATO	A	A	A	A-	A-	A-
NI	BBB+	BBB+	BBB+	BBB+	BBB-	BBB-
NJR	BBB+	A	A	A	A	A
NWN	A+	A+	A+	A+	A+	A+
OGS	A	A	A-	A-	A-	N/A
SJI	BBB	BBB+	BBB+	BBB+	BBB+	BBB+
SR	A-	A-	A-	A-	A-	A-
SWX	BBB+	BBB+	BBB+	BBB+	BBB+	A-
UGI	NR	NR	NR	NR	NR	NR
Proxy Average	A-	A-	A-	A-	A-	A-
SoCalGas	A	A	A	A	A	A
SoCalGas vs Proxy	Higher	Higher	Higher	Higher	Higher	Higher

¹ Source: 10Ks, S&P Global Ratings, S&P Global Market Intelligence (SNL)

² All of the proxy companies are determined as Non-Vertically Integrated at the parent level

Figure 2c

SoCalGas' Presentation of
Key Commission Risk Indicators (Long-Term Interest Coverage)

Long-Term Interest Coverage ¹						
Company ²	2018	2017	2016	2015	2014	2013
ATO	10.12	8.69	8.28	7.62	6.65	5.76
NI	2.04	3.87	4.03	3.27	3.40	4.21
NJR	6.73	6.17	8.34	11.90	10.68	9.24
NWN	5.77	6.17	5.65	5.01	5.03	4.94
OGS	8.52	9.86	9.44	8.29	7.63	5.99
SJI	2.68	2.76	10.00	7.26	7.11	7.81
SR	4.62	5.41	5.55	5.42	5.33	5.18
SWX	6.10	7.53	8.07	7.81	7.56	8.22
UGI	6.69	6.00	5.85	4.99	5.76	4.97
Proxy Average	5.92	6.27	7.24	6.84	6.57	6.26
SoCalGas	10.12	11.51	10.99	13.13	14.09	13.52
SoCalGas vs Proxy	4.20	5.24	3.74	6.29	7.52	7.26
	Higher	Higher	Higher	Higher	Higher	Higher

¹ Source: S&P Global Market Intelligence (SNL)

² All of the proxy companies are determined as Non-Vertically Integrated at the parent level

Figure 2d
SoCalGas' Presentation of
Key Commission Risk Indicators (Value Line Beta)

Value Line Beta ¹												
Company ²	2018 Q4	2018 Q3	2018 Q2	2018 Q1	2017 Q4	2017 Q3	2017 Q2	2017 Q1	2016 Q4	2016 Q3	2016 Q2	2016 Q1
ATO	0.60	0.60	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.75	0.75	0.80
NI	0.50	0.55	0.60	0.60	0.60	NMF	0.65	NMF	NMF	NMF	NMF	NMF
NJR	0.70	0.70	0.80	0.75	0.80	0.80	0.80	0.80	0.80	0.80	N/A	0.80
NWN	0.60	0.65	0.70	0.65	0.70	0.70	0.65	0.65	0.65	0.65	0.65	0.65
OGS	0.65	0.65	0.70	0.70	0.70	0.70	0.70	N/A	N/A	N/A	N/A	N/A
SJI	0.80	0.75	0.85	0.80	0.85	0.85	0.80	0.80	0.80	0.80	0.80	0.85
SR	0.65	0.65	0.70	0.65	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
SWX	0.70	0.75	0.80	0.75	0.80	0.75	0.75	0.75	0.75	0.75	0.75	0.80
UGI	0.80	0.85	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	N/A	0.95
Proxy Average	0.67	0.68	0.75	0.72	0.75	0.76	0.74	0.76	0.76	0.76	0.73	0.79
SoCalGas	0.75	0.75	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.85	0.80
SoCalGas vs Proxy	0.08	0.07	0.05	0.08	0.05	0.04	0.06	0.04	0.04	0.04	0.12	0.01
	Higher	Higher	Higher	Higher	Higher	Higher	Higher	Higher	Higher	Higher	Higher	Higher

¹ Source: Value Line; Parent company information represented

² All of the proxy companies are determined as Non-Vertically Integrated at the parent level

Figure 2e
SoCalGas' Presentation of
Key Commission Risk Indicators (Value Line Safety Rating)

Value Line Safety Rating ¹												
Company ²	2018 Q4	2018 Q3	2018 Q2	2018 Q1	2017 Q4	2017 Q3	2017 Q2	2017 Q1	2016 Q4	2016 Q3	2016 Q2	2016 Q1
ATO	1	1	1	1	1	1	1	1	1	1	1	1
NI	3	3	3	3	3	3	3	3	3	3	3	3
NJR	1	1	1	1	1	1	1	1	1	1	N/A	1
NWN	1	1	1	1	1	1	1	1	1	1	1	1
OGS	2	2	2	2	2	2	2	N/A	N/A	N/A	N/A	N/A
SJI	2	2	2	2	2	2	2	2	2	2	2	2
SR	2	2	2	2	2	2	2	2	2	2	2	2
SWX	3	3	3	3	3	3	3	3	3	3	3	3
UGI	2	2	2	2	2	2	2	2	2	2	N/A	2
Proxy Average	2	2	2	2	2	2	2	2	2	2	2	2
SoCalGas	2	2	2	2	2	2	2	2	2	2	3	3
SoCalGas vs Proxy	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.0	1.1
	Higher	Higher	Higher	Higher	Higher	Higher	Higher	Higher	Higher	Higher	Higher	Higher

¹ Source: Value Line; Parent company information represented

² All of the proxy companies are determined as Non-Vertically Integrated at the parent level

Figure 2f
SoCalGas' Presentation of
Key Commission Risk Indicators (Value Line Financial Strength Rating)

Value Line Financial Strength Rating ¹												
Company ²	2018 Q4	2018 Q3	2018 Q2	2018 Q1	2017 Q4	2017 Q3	2017 Q2	2017 Q1	2016 Q4	2016 Q3	2016 Q2	2016 Q1
ATO	A+	A+	A+	A+	A+	A+	A	A	A	A	A	A
NI	B+	B+	B+	B+	B+	B+	B+	B+	B+	B+	B+	B+
NJR	A+	A+	A+	A+	A+	A+	A+	A+	A+	A+	N/A	A+
NWN	A	A	A	A	A	A	A	A	A	A	A	A
OGS	A	A	A	B++	B++	B++	B++	N/A	N/A	N/A	N/A	N/A
SJI	A	A	A	A	A	A	A	A	A	A	A	A
SR	B++	B++	B++	B++	B++	B++	B++	B++	B++	B++	B++	B++
SWX	B++	B++	B++	B++	B++	B++	B++	B++	B++	B++	B++	B++
UGI	B++	B++	B++	B++	B++	B++	B++	B++	B++	B++	N/A	B++
Proxy Average	A	A	A	A	A	A	B++	B++	B++	B++	B++	B++
SoCalGas	A	A	A	A	A	A	A	A	A	A	B++	B++
SoCalGas vs Proxy	Same	Same	Same	Same	Same	Same	Higher	Higher	Higher	Higher	Same	Same

¹ Source: Value Line; Parent company information represented

² All of the proxy companies are determined as Non-Vertically Integrated at the parent level

APPENDIX C

Non-Utility Companies

Figure 3a
SoCalGas' Presentation of
Non-Utility Companies (Value Line Portfolio I)

Company	Beta	Safety	Financial Strength	Yield%
Allison Transmission	1.05	3	B+	1.3
Alphabet Inc.	1.05	1	A++	Nil
Altria Group	0.70	2	B++	5.6
Amer. Express	1.10	1	A++	1.5
Amgen	1.15	1	A++	3.1
Gallagher (Arthur J.)	0.90	1	A	2.2
Gartner Inc.	0.95	3	B++	Nil
Genpact Limited	0.75	2	B++	1.0
Genuine Parts	0.95	1	A+	2.8
Home Depot	1.05	1	A++	2.9
IHS Markit	1.05	3	B++	Nil
IQVIA Holdings	0.95	3	B+	Nil
Intercontinental Exch.	0.85	2	A	1.5
Medtronic plc	0.90	1	A++	2.3
Motorola Solutions	0.95	2	B++	1.6
PepsiCo, Inc.	0.75	1	A++	3.0
Service Corp. Int'l	1.05	3	B+	1.8
Sherwin-Williams	1.05	2	A+	1.1
Union Pacific	1.15	1	A++	2.2
U.S. Bancorp	1.00	1	A	3.2

¹ Source: Value Line Investment Survey - Selection & Opinion (4/5/2019)

Figure 3b
SoCalGas' Presentation of
Non-Utility Companies (Value Line Portfolio IV)

Company	Beta	Safety	Financial Strength	Yield%
AT&T Inc.	0.80	1	A++	6.5
Alliant Energy	0.65	2	A	3.0
Blackstone Group	1.25	3	B++	6.7
Boeing	1.15	1	A++	2.2
Brit. Am. Tobacco	0.95	2	B++	6.3
Caterpillar Inc.	1.30	2	A+	2.6
Coca-Cola	0.70	1	A++	3.6
Consol. Edison	0.45	1	A+	3.5
Eaton Corp. plc	1.20	2	A+	3.6
Intel Corp.	1.05	1	A++	2.4
Kimberly-Clark	0.75	1	A+	3.3
LyondellBasell Inds.	1.35	3	A	4.7
McDonald's Corp.	0.80	1	A++	2.5
Merck & Co.	0.95	1	A++	2.7
Paychex, Inc.	0.95	1	A	3.1
Pfizer, Inc.	0.90	1	A++	3.4
Prudential Fin'l	1.30	3	B++	4.4
Southern Co.	0.50	2	A	4.7
United Parcel Serv.	0.95	1	A	3.6
Waste Management	0.75	1	A	2.0

¹ Source: Value Line Investment Survey - Selection & Opinion (4/5/2019)

APPENDIX D

Regulatory Jurisdictions

Figure 4
SoCalGas' Presentation of
Value Line Regulatory Environment Ranking

Above Average	Average	Below Average
Alabama	Arizona	Arkansas
Alaska	California	Connecticut
Colorado	Delaware	District of Columbia
Georgia	Florida	Hawaii
Idaho	Iowa	Illinois
Indiana	Kansas	Maryland
Massachusetts	Kentucky	Missouri
Ohio	Louisiana	Montana
South Carolina	Maine	New Mexico
Wisconsin	Michigan	New York
FERC	Minnesota	West Virginia
	Mississippi	
	New Hampshire	
	New Jersey	
	North Carolina	
	North Dakota	
	Oklahoma	
	Oregon	
	Pennsylvania	
	South Dakota	
	Texas	
	Virginia	
	Washington	
	Wyoming	

Source: Value Line Electric Utility (West) Industry April 27, 2018

APPENDIX E

10K Annual Report (Year Ending 2018) Excerpts

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended

December 31, 2018

or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from

to

Commission File No.	Exact Name of Registrants as Specified in their Charters, Address and Telephone Number	State of Incorporation	I.R.S. Employer Identification Nos.
1-14201	SEMPRA ENERGY 488 8th Avenue San Diego, California 92101 (619) 696-2000	California	33-0732627
1-03779	SAN DIEGO GAS & ELECTRIC COMPANY 8326 Century Park Court San Diego, California 92123 (619) 696-2000	California	95-1184800
1-01402	SOUTHERN CALIFORNIA GAS COMPANY 555 West Fifth Street Los Angeles, California 90013 (213) 244-1200	California	95-1240705

SECURITIES REGISTERED PURSUANT TO SECTION 12(b) OF THE ACT:

Title of Each Class	Name of Each Exchange on Which Registered
Sempra Energy Common Stock, without par value	NYSE
Sempra Energy 6% Mandatory Convertible Preferred Stock, Series A, \$100 liquidation preference	NYSE
Sempra Energy 6.75% Mandatory Convertible Preferred Stock, Series B, \$100 liquidation preference	NYSE

SECURITIES REGISTERED PURSUANT TO SECTION 12(g) OF THE ACT:

Southern California Gas Company Preferred Stock, \$25 par value
6% Series A, 6% Series

applicable policy limits), or if there are significant delays in receiving insurance recoveries, such amounts could have a material adverse effect on SoCalGas' and Sempra Energy's cash flows, financial condition and results of operations.

Civil and Criminal Litigation

As of February 21, 2019, 393 lawsuits, including approximately 48,000 plaintiffs, are pending against SoCalGas, some of which have also named Sempra Energy.

Five shareholder derivative actions alleging breach of fiduciary duties have been filed against certain officers and directors of Sempra Energy and/or SoCalGas, four of which were joined in a Consolidated Shareholder Derivative Complaint in August 2017. Three complaints have also been filed by public entities, including the California Attorney General and the County of Los Angeles. These complaints seek various remedies, including injunctive relief, abatement of the public nuisance, civil penalties, payment of the cost of a longitudinal health study and money damages, as well as punitive damages and attorneys' fees. Additional litigation may be filed against us in the future related to the Leak or our responses thereto. In August 2018, SoCalGas entered into an agreement to settle these public entity actions, which was approved by the LA Superior Court in February 2019. These various lawsuits have been coordinated before a single court and will be managed under master complaints.

Additionally, a misdemeanor criminal complaint was filed by the LA County District Attorney's office, as to which SoCalGas entered a settlement that was approved by the LA Superior Court but is subject to appeal by certain residents. In addition, a federal securities class action alleging violation of the federal securities laws was filed against Sempra Energy and certain of its officers and directors in the SDCA. This complaint was dismissed by the court in March 2018, and in December 2018, the court declined to reconsider its order. For a more detailed description of the civil and criminal lawsuits brought against us, see Note 16 of the Notes to Consolidated Financial Statements.

The costs of defending against the civil and criminal lawsuits, cooperating with these investigations, and any damages, restitution, and civil, administrative and criminal fines, penalties and other costs, if awarded or imposed, as well as the costs of mitigating the actual natural gas released, could be significant and to the extent not covered by insurance (including any costs in excess of applicable policy limits), if there were to be significant delays in receiving insurance recoveries, or if the insurance recoveries are subject to income taxes while the associated costs are not tax deductible, such amounts could have a material adverse effect on SoCalGas' and Sempra Energy's cash flows, financial condition and results of operations.

Natural Gas Storage Operations and Regulatory Proceedings

Natural gas withdrawn from storage is important for service reliability during peak demand periods, including peak electric generation needs in the summer and heating needs in the winter. The Aliso Canyon natural gas storage facility, with a storage capacity of 86 Bcf (which represents 63 percent of SoCalGas' natural gas storage inventory capacity), is the largest SoCalGas storage facility and an important element of SoCalGas' delivery system. As a result of the Leak, beginning October 24, 2015, pursuant to orders by DOGGR and the Governor of the State of California, and SB 380, SoCalGas suspended injection of natural gas into the Aliso Canyon natural gas storage facility. In February 2017, the CPUC opened a proceeding pursuant to SB 380 to determine the feasibility of minimizing or eliminating the use of the Aliso Canyon natural gas storage facility while still maintaining energy and electric reliability for the region. The order establishing the scope of the proceeding expressly excludes issues with respect to air quality, public health, causation, culpability or cost responsibility regarding the Leak. Following a comprehensive safety review and authorization by DOGGR and the CPUC's Executive Director, SoCalGas resumed limited injection operations in July 2017. Limited withdrawals of natural gas from the Aliso Canyon natural gas storage facility began in 2017 and continued in 2018 to augment natural gas supplies during critical demand periods. In January 2019, the CPUC concluded Phase 1 of the proceeding initiated in February 2017 by establishing a framework for the hydraulic, production cost and economic modeling assumptions for the potential reduction in usage or elimination of the Aliso Canyon natural gas storage facility. Phase 2 of the proceeding began in the first quarter of 2019 and will evaluate the impacts of reducing or eliminating the usage of the Aliso Canyon natural gas storage facility using the established framework and models.

If the Aliso Canyon natural gas storage facility were to be permanently closed, or if future cash flows were otherwise insufficient to recover its carrying value, it could result in an impairment of the facility and significantly higher than expected operating costs and/or additional capital expenditures, and natural gas reliability and electric generation could be jeopardized. At December 31, 2018, the Aliso Canyon natural gas storage facility had a net book value of \$724 million. Any significant impairment of this asset could have a material adverse effect on SoCalGas' and Sempra Energy's results of operations for the period in which it is recorded. Higher operating costs and additional capital expenditures incurred by SoCalGas may not be recoverable in customer rates, and SoCalGas' and Sempra Energy's results of operations, cash flows and financial condition may be materially adversely affected.

Governmental Investigations, Orders and Additional Regulation

California legislators and stakeholder, advocacy and activist groups have expressed a desire to further limit or eliminate reliance on natural gas as an energy source by advocating increased use of renewable energy and electrification in lieu of the use of natural gas. A substantial reduction or the elimination of natural gas as an energy source in California could have a material adverse effect on SDG&E's, SoCalGas' and Sempra Energy's cash flows, financial condition and results of operations.

SDG&E may incur substantial costs and liabilities as a result of its partial ownership of a nuclear facility that is being decommissioned.

SDG&E has a 20-percent ownership interest in SONGS, formerly a 2,150-MW nuclear generating facility near San Clemente, California, that is in the process of being decommissioned by Edison, the majority owner of SONGS. SONGS is subject to the jurisdiction of the NRC and the CPUC. SDG&E, and each of the other owners, holds its undivided interest as a tenant in common in the property, and each owner is responsible for financing its share of expenses and capital expenditures, including decommissioning activities. Although the facility is being decommissioned, SDG&E's ownership interest in SONGS continues to subject it to the risks of owning a partial interest in a nuclear generation facility, which include:

- the potential release of a radioactive material including from a natural disaster such as an earthquake or tsunami that could cause a catastrophic failure of the safety systems in place that are designed to prevent the release of radioactive material. If radioactive material is released including as a result of such failure, a substantial amount of radiation could be released and cause catastrophic harm to human health and the environment;
- the potential harmful effects on the environment and human health resulting from the prior operation of nuclear facilities and the storage, handling and disposal of radioactive materials;
- limitations on the amounts and types of insurance commercially available to cover losses that might arise in connection with operations and the decommissioning of the facility; and
- uncertainties with respect to the technological and financial aspects of decommissioning the facility.

In addition, SDG&E maintains NDTs for providing funds to decommission SONGS. Trust assets have been generally invested in equity and debt securities, which are subject to significant market fluctuations. A decline in the market value of trust assets or an adverse change in the law regarding funding requirements for decommissioning trusts could increase the funding requirements for these trusts, which in each case may not be fully recoverable in rates. Furthermore, CPUC approval is required in order to make withdrawals from these trusts. CPUC approval for certain expenditures may be denied by the CPUC altogether if the CPUC determines that the expenditures are unreasonable. Finally, decommissioning may be materially more expensive than we currently anticipate and therefore decommissioning costs may exceed the amounts in the trust funds. Rate recovery for overruns would require CPUC approval, which may not occur.

Interpretations of tax regulations could impact access to NDT funds for reimbursement of spent nuclear fuel management costs. Depending on how the IRS or the U.S. Department of Treasury ultimately interprets or alters regulations addressing the taxation of a qualified NDT, SDG&E may be restricted from withdrawing amounts from its qualified decommissioning trusts to pay for spent fuel management while Edison and SDG&E are seeking, or plan to seek, recovery of spent fuel management costs in litigation against, or in settlements with, the DOE. In December 2016, the IRS and the U.S. Department of Treasury issued proposed regulations that clarify the definition of "nuclear decommissioning costs," which are costs that may be paid for or reimbursed from a qualified trust fund. These proposed regulations will be effective prospectively once they are finalized. SDG&E is awaiting the adoption of, or additional refinement to, the proposed regulations before determining whether the proposed regulations will allow SDG&E to access the NDT funds for reimbursement or payment of the spent fuel management costs incurred in 2017 and subsequent years. Until the DOE litigation is resolved and/or IRS regulations regarding spent fuel management costs are confirmed to apply, SDG&E expects to continue to pay for its share of such spent fuel management costs. If SDG&E is unable to obtain timely access to the trusts for these costs, SDG&E's cash flows could be negatively impacted.

The occurrence of any of these events could result in a substantial reduction in our expected recovery and have a material adverse effect on SDG&E's and Sempra Energy's businesses, cash flows, financial condition, results of operations and/or prospects.

Risks Related to our Businesses Other Than the California Utilities

Business development activities may not be successful and projects under construction may not commence operation as scheduled, be completed within budget or operate at expected levels, which could have a material adverse effect on our businesses, financial condition, cash flows, results of operations and/or prospects.

The acquisition, development, construction and expansion of LNG liquefaction, marine and inland ethane and liquid fuels, and LPG terminals and storage; natural gas, propane and ethane pipelines and distribution and storage facilities; electric generation, transmission and distribution infrastructure; and other energy infrastructure projects involve numerous risks. We may be required

consumption compared to authorized levels, SDG&E's CFCA balance was undercollected by \$51 million and \$26 million at December 31, 2018 and 2017, respectively, and SoCalGas' CFCA balance was undercollected by \$177 million and \$164 million at December 31, 2018 and 2017, respectively.

SDG&E

SDG&E has a tolling agreement to purchase power generated at OMEC, a 605-MW generating facility. A related agreement provided SDG&E with the option to purchase OMEC at a predetermined price (referred to as the call option). SDG&E's call option has expired unexercised. Under the terms of the agreement, OMEC LLC can require SDG&E to purchase the power plant for \$280 million, subject to adjustments, on or before October 3, 2019 (referred to as the put option), or upon earlier termination of the PPA.

In October 2018, SDG&E and OMEC LLC signed a resource adequacy capacity agreement for a term that would commence at the expiration of the current tolling agreement in October 2019 and end in August 2024. The capacity agreement was approved by OMEC LLC's lenders in December 2018, but is contingent upon receiving final and non-appealable approval from the CPUC before the expiration of the put option on April 1, 2019. If a timely final and non-appealable approval of the resource adequacy capacity agreement is received, OMEC LLC will waive its right to exercise the put option and, as a result, SDG&E would no longer consolidate Otay Mesa VIE. SDG&E received CPUC approval of the resource adequacy capacity agreement in February 2019 and the period for appeal expires on March 25, 2019.

SoCalGas

Aliso Canyon Natural Gas Storage Facility Gas Leak

We provide information on the natural gas leak at the Aliso Canyon natural gas storage facility in Note 16 of the Notes to Consolidated Financial Statements, in "Factors Influencing Future Performance" below, and in "Item 1A. Risk Factors." The costs of defending against the related civil and criminal lawsuits and cooperating with related investigations, and any damages, restitution, and civil, administrative and criminal fines, costs and other penalties, if awarded or imposed, as well as costs of mitigating the actual natural gas released, could be significant, and to the extent not covered by insurance (including any costs in excess of applicable policy limits), if there were to be significant delays in receiving insurance recoveries, or if the insurance recoveries are subject to income taxes while the associated costs are not tax deductible, such amounts could have a material adverse effect on SoCalGas' and Sempra Energy's cash flows, financial condition and results of operations. Also, higher operating costs and additional capital expenditures incurred by SoCalGas as a result of new laws, orders, rules and regulations arising out of this incident or our responses thereto could be significant and may not be recoverable in customer rates, which may have a material adverse effect on SoCalGas' and Sempra Energy's cash flows, financial condition and results of operations.

The costs incurred to remediate and stop the Leak and to mitigate local community impacts are significant and may increase, and to the extent not covered by insurance (including any costs in excess of applicable policy limits), if there were to be significant delays in receiving insurance recoveries, or if the insurance recoveries are subject to income taxes while the associated costs are not tax deductible, such amounts could have a material adverse effect on SoCalGas' and Sempra Energy's cash flows, financial condition and results of operations.

Sempra Texas Utility

Acquisition of Oncor Holdings

As we discuss in Note 5 of the Notes to Consolidated Financial Statements, on March 9, 2018, Sempra Energy completed transactions resulting in the acquisition of an indirect ownership of an 80.25-percent interest in Oncor for a total purchase price paid of \$9.57 billion, including Merger Consideration of \$9.45 billion.

As we discuss in Notes 7, 13 and 14 of the Notes to Consolidated Financial Statements, our registered public offerings of common stock (not including shares offered pursuant to forward sale agreements), series A preferred stock and long-term debt completed in January 2018 provided total initial net proceeds of approximately \$7.0 billion for partial funding of the Merger Consideration, of which approximately \$800 million was used to pay down commercial paper, pending the closing of the Merger.

In March 2018, to fund a portion of the Merger Consideration, we issued approximately \$900 million (net of underwriting discounts) of common equity through settlement of forward sales under the forward sale agreements and raised the remaining portion of the Merger Consideration through issuances of approximately \$2.6 billion in commercial paper, with a weighted-average maturity of 47 days and a weighted-average interest rate of 2.2 percent per annum.

Aliso Canyon Natural Gas Storage Facility Gas Leak

In October 2015, SoCalGas discovered a leak at one of its injection-and-withdrawal wells, SS25, at its Aliso Canyon natural gas storage facility located in Los Angeles County. SoCalGas worked closely with several of the world's leading experts to stop the Leak. In February 2016, DOGGR confirmed that the well was permanently sealed.

See Note 16 of the Notes to Consolidated Financial Statements for discussions of the following matters related to the Leak:

- Local Community Mitigation Efforts;
- Civil and Criminal Litigation;
- Regulatory Proceedings; and
- Governmental Investigations and Orders and Additional Regulation.

Cost Estimates, Accounting Impacts and Insurance

At December 31, 2018, SoCalGas estimates its costs related to the Leak are \$1,055 million (the cost estimate), which includes \$1,027 million of costs recovered or probable of recovery from insurance. Approximately 54 percent of the cost estimate is for the temporary relocation program (including cleaning costs and certain labor costs). The remaining portion of the cost estimate includes costs incurred to defend litigation, for the root cause analysis being conducted by an independent third party, for efforts to control the well, to mitigate the actual natural gas released, the cost of replacing the lost gas, and other costs, as well as the estimated costs to settle certain actions.

As of December 31, 2018, we recorded the expected recovery of the cost estimate related to the Leak of \$461 million as Insurance Receivable for Aliso Canyon Costs on SoCalGas' and Sempra Energy's Consolidated Balance Sheets. This amount is net of insurance retentions and \$566 million of insurance proceeds we received through December 31, 2018 related to portions of the cost estimate described above, including temporary relocation and associated processing costs, control-of-well expenses, legal costs and lost gas. If we were to conclude that this receivable or a portion of it is no longer probable of recovery from insurers, some or all of this receivable would be charged against earnings, which could have a material adverse effect on SoCalGas' and Sempra Energy's cash flows, financial condition and results of operations.

As described in "Civil and Criminal Litigation" in Note 16 of the Notes to Consolidated Financial Statements, the actions seek compensatory, statutory and punitive damages, restitution, and civil, administrative and criminal fines, penalties and other costs, which, except for the amounts paid or estimated to settle certain actions, are not included in the cost estimate as it is not possible at this time to predict the outcome of these actions or reasonably estimate the amount of damages, restitution or civil, administrative or criminal fines, penalties or other costs that may be imposed. The recorded amounts above also do not include the costs to clean additional homes pursuant to the directives by the DPH, future legal costs necessary to defend litigation, and other potential costs that we currently do not anticipate incurring or that we cannot reasonably estimate. Furthermore, the cost estimate does not include certain other costs incurred by Sempra Energy associated with defending against shareholder derivative lawsuits.

Excluding directors' and officers' liability insurance, we have at least four kinds of insurance policies that together we estimate provide between \$1.2 billion to \$1.4 billion in insurance coverage, depending on the nature of the claims. We cannot predict all of the potential categories of costs or the total amount of costs that we may incur as a result of the Leak. Subject to various policy limits, exclusions and conditions, based on what we know as of the filing date of this report, we believe that our insurance policies collectively should cover the following categories of costs: costs incurred for temporary relocation and associated processing costs (including cleaning costs and certain labor costs), costs to address the Leak and stop or reduce emissions, the root cause analysis being conducted to investigate the cause of the Leak, the value of lost gas, costs incurred to mitigate the actual natural gas released, costs associated with litigation and claims by nearby residents and businesses, any costs to clean additional homes pursuant to directives by the DPH, and, in some circumstances depending on their nature and manner of assessment, fines and penalties. There can be no assurance that we will be successful in obtaining additional insurance recovery for these costs, and to the extent we are not successful in obtaining coverage or these costs exceed the amount of our coverage, such costs could have a material adverse effect on SoCalGas' and Sempra Energy's cash flows, financial condition and results of operations.

As noted above, at December 31, 2018, SoCalGas' estimate of costs related to the Leak of \$1,055 million include \$1,027 million of costs recovered or probable of recovery from insurance. This estimate may rise significantly as more information becomes available. Costs not included in the \$1,055 million cost estimate could be material. If any costs are not covered by insurance (including any costs in excess of applicable policy limits), if there are significant delays in receiving insurance recoveries, or if the insurance recoveries are subject to income taxes while the associated costs are not tax deductible, such amounts could have a material adverse effect on SoCalGas' and Sempra Energy's cash flows, financial condition and results of operations.

Natural Gas Storage Operations and Reliability

APPENDIX F

A.17-10-007/008

Test Year 2019 General Rate Case

Testimony Excerpts

Company: Southern California Gas Company (U 904 G)/San Diego Gas & Electric
Company (U 902 M)
Proceeding: 2019 General Rate Case
Application: A.17-10-_____
Exhibit: SCG-29/SDG&E-27

SOCALGAS / SDG&E DIRECT TESTIMONY OF NEIL K. CAYABYAB
(CORPORATE CENTER - INSURANCE)

October 6, 2017

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**



A  Sempra Energy utility® A  Sempra Energy utility®

SOCALGAS/SDG&E DIRECT TESTIMONY OF NEIL K. CAYABYAB
(CORPORATE CENTER - INSURANCE)

I. INTRODUCTION

A. Summary of Proposals

I sponsor the TY 2019 forecast for operations and maintenance (O&M) costs associated with Corporate Center Insurance for SDG&E and SoCalGas. Table NKC-1 below summarizes my sponsored costs. As will be discussed in greater detail later in the chapter, our 2019 estimates are based on our loss history, input from our primary insurance broker Marsh, and expected insurance market conditions.

TABLE NKC-1

Insurance

**Test Year 2019 General Rate Case
Testimony Table**

Services Provided	Corporate Center			Utility Allocations		
	Base Year 2016	2016-2019 Incr/(Decr)	Forecast 2019	Base Year 2016	2016-2019 Incr/(Decr)	Forecast 2019
<i>(2016 \$ - 000's)</i>						
A Property	12,160	8,144	20,304	10,117	5,959	16,076
B Liability	151,148	15,817	166,965	133,330	15,232	148,562
C Surety Bonds	199	120	319	98	93	192
Total	<u>\$163,506</u>	<u>\$24,082</u>	<u>\$187,588</u>	<u>\$143,545</u>	<u>\$21,285</u>	<u>\$164,830</u>
Allocations						
SDG&E	107,362	18,908	126,270			
So Cal Gas	36,183	2,377	38,560			
Total Utility	<u>143,545</u>	<u>21,285</u>	<u>164,830</u>			
Global / Retained	19,961	2,797	22,758			
Total	<u>\$163,506</u>	<u>\$24,082</u>	<u>\$187,588</u>			

B. Cost Allocation Methods

The Sempra Energy (Sempra) corporate insurance department procures insurance on behalf of SDG&E, SoCalGas, and other Sempra business units. Our insurance program generally provides coverage for all of Sempra's business units including SDG&E and SoCalGas. Insurance premiums are therefore billed in accordance with the following cost allocation priorities:

1. Direct Assignment,
2. Causal / Beneficial (CB), and
3. Multi-Factor Allocations

1 capacity was based solely on wildfire insurance market conditions because Sempra
2 did not have an insurance loss caused by a wildfire during that time period.

- 3 • California Legal Environment relating to strict liability and inverse condemnation –
4 This California doctrine assigns strict liability to the utility through inverse
5 condemnation, such that options for a utility’s defense are extremely limited in
6 certain circumstances. As the Federal Energy Regulatory Commission (FERC) has
7 recognized, “California utilities can be held strictly liable for damages caused by
8 their facilities. California’s inverse condemnation doctrine can require a utility to
9 pay damages whenever its facilities, operating as deliberately designed and
10 constructed for the public use, are involved in an event that damages third-party
11 property, regardless of fault.”¹¹ Because of California’s inverse condemnation
12 doctrine, insurers require a higher premium than in other States with similar
13 exposures, or they may refuse to provide insurance coverage at all.
- 14 • Lack of Competition in the Insurance Market – SDG&E and SoCalGas face limited
15 number of insurance companies willing to write utility insurance. Insurer liability
16 losses over the last 10 years within California has been particularly challenging and
17 have caused many insurers to reduce the amount of capacity available. Because of
18 this, in 2010 Sempra began to access property reinsurance markets as a means to
19 broaden the available supply of wildfire insurance.

20 3. Program Marketing Approach

21 Our Excess Liability, Excess Fire, and Wildfire Damage Reinsurance programs are
22 comprised of insurance carriers based in the United States, the United Kingdom, and Bermuda.
23 We have meetings with these insurance markets annually to review our risk reduction measures
24 and address any concerns and/or questions underwriters may have for each policy. For instance,
25 wildfire has been a significant concern with insurance carriers over the last several years. In
26 additional to our annual meetings, approximately every two years we invite our underwriters to
27 personally tour our wildfire mitigation assets and meet with our experts to address any concerns.

¹¹ *San Diego Gas & Electric Company*, 146 FERC ¶ 63,017 at P 23 (2014). See also 146 FERC ¶ 63,017 at P 61 (“presence or absence of fault by the public entity ordinarily is irrelevant”) (quoting *Pacific Bell v. City of San Diego*, 81 Cal. App. 4th 596, 602 (2000); *Pacific Bell v. S. Cal. Edison Co.*, 208 Cal. App. 4th 1400, 1408 (2012) (finding that strict liability applies to inverse condemnation cases involving power lines).

Company: Southern California Gas Company (U 904 G)/San Diego Gas & Electric
Company (U 902 M)
Proceeding: 2019 General Rate Case
Application: A.17-10-007/008 (cons.)
Exhibit: SCG-229/SDG&E-227

SOCALGAS/SDG&E
REBUTTAL TESTIMONY OF NEIL K. CAYABYAB
(CORPORATE CENTER - INSURANCE)
JUNE 18, 2018

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**



A  Sempra Energy utility®



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1 of additional coverage through a new application. For example, current insured loss estimates
2 from the 2017 California wildfires indicates that additional limits should be evaluated because
3 the frequency and severity of wildfires is increasing.⁹ For that reason, we are exploring
4 Insurance Linked Securities as a potential source of new additional wildfire capacity, as outlined
5 in more detail in our UCAN/Sulpizio response below.

6 **2. FEA**

7 FEA recommends rejection of SDG&E's and SoCalGas' proposed LIPBA. FEA
8 contends that liability insurance costs are "a normal cost of a regulated utility and are not totally
9 beyond the utility's control [and that] [t]he Company has the ability to shop around each year to
10 obtain the most economical price and options." FEA argues that "the company experienced
11 increases in insurance due to wildfires in the past and was able to manage its expenses in the
12 future."¹⁰ FEA also asserts that SDG&E has not demonstrated a unique problem with regulatory
13 lag that requires singling out these expenses from the overall revenue requirement.

14 We strongly disagree with FEA's recommendation. As noted above, the Companies'
15 general excess/wildfire liability insurance premiums renew on June 26, 2018. At this point, the
16 insurance department is finalizing its renewal discussions/negotiations with retail and
17 reinsurance insurers, but the feedback we have received from insurers is that they have been re-
18 evaluating their positions due to the overall financial landscape in California and in particular
19 loss concerns related to the 2017 California wildfires. Based on this feedback, the Companies
20 are expecting liability insurance costs to exceed the forecasted amounts. For example, we
21 anticipate SDG&E's 2018 wildfire liability insurance premiums to increase by approximately
22 30% to 35%, which may also impact SDG&E's future 2019 wildfire liability insurance
23 premiums. While SDG&E is *not* proposing to revise its TY 2019 forecasts at this time, it may
24 seek leave from the Commission to do so at a future date.

25 To provide a bit more context of the challenges our insurance department has faced this
26 year, as part of our recent and still ongoing 2018 general excess and wildfire liability renewal,
27 we met with over 90 different insurance companies located in New York, London, Bermuda,

⁹ California Department of Forestry & Fire Protection, *Top 20 Most Destructive California Wildfires*
(January 12, 2018), *available at*
http://www.fire.ca.gov/communications/downloads/fact_sheets/Top20_Destruction.pdf.

¹⁰ Ex. FEA-1 (Smith) at 31:10-13.

1 Munich, and Zurich to review our risk mitigation strategies. Many underwriters complimented
2 our risk mitigation efforts, but also expressed concerns with the California legal environment
3 (particularly with respect to Inverse Condemnation), their overall potential exposure to the 2017
4 catastrophic losses including wildfires, floods, and Hurricanes, and their experience that claims
5 costs in California are higher than other states,¹¹ all of which present significant issues for them.

6 According to Allianz, the average length of wildfire season in the Western region of the
7 United States has increased from 5 months in 1970 to 7 months today and the average number of
8 large wildfires (greater than 1,000 acres) has increased from ~140 (1980 to 1989) to ~250 (2,000
9 to 2012) with 2017 being the “Worst California Fire Season in History.”¹² Allianz goes on to
10 report that five of the most destructive fires occurred in 2017 in California and estimates full
11 damages could be as high as \$180 billion. Potential mudslides that can result from a wildfire are
12 creating additional insurer concerns. Allianz’s preliminary assessment of the economic impacts
13 of the Montecito mudslide shows residential property damages could cost up to \$204 million to
14 fully repair or rebuild.¹³ Weather forecasts also are one of the factors they consider in their
15 underwriting procedures. As an example, Renaissance Re (Ren Re) recently issued California
16 Wildfire Outlook summary,¹⁴ which forecasts “higher than normal potential for wildfire for
17 portions of Southern California and the interior valley region into the summer and early fall.”

18 Given this risk perception, and the accompanying market fluctuations in the cost of
19 liability insurance, it is reasonable to assume our insurance premiums and needed levels of
20 coverage will continue to be impacted due to factors beyond our control, which supports our
21 request for a LIPBA. As noted, we expect a 30-35% increase, which, contrary to FEA’s

¹¹ Marsh Workers’ Compensation and General Liability Heat Map as attached in Appendix A.

¹² Allianz, *Burning Issues, California Wildfire Review*, available at <http://www.agcs.allianz.com/insights/white-papers-and-case-studies/burning-issues-california-wildfire-review/> as attached in Appendix B.

¹³ Increasing wildfire frequency/severity is not just limited to California/United States. According to Aon Benefield¹³, in Europe, 2017 marked the largest extent of land burned by wildfires dating back to 1980 and for the first time in measurement history, fires consumed more than one million hectares of land across that continent. Portugal was the worst effected country with economic losses due to wildfires totaling almost \$1.2Bn with local insurance sector declaring 2017 as the costliest natural disaster in the country’s history. The Aon report goes on to list several other notable fires in Chile, South Africa, and Canada, as attached in Appendix C.

¹⁴ Renaissance Re, *California Wildfire Outlook*, (May 2018) as attached in Appendix D.

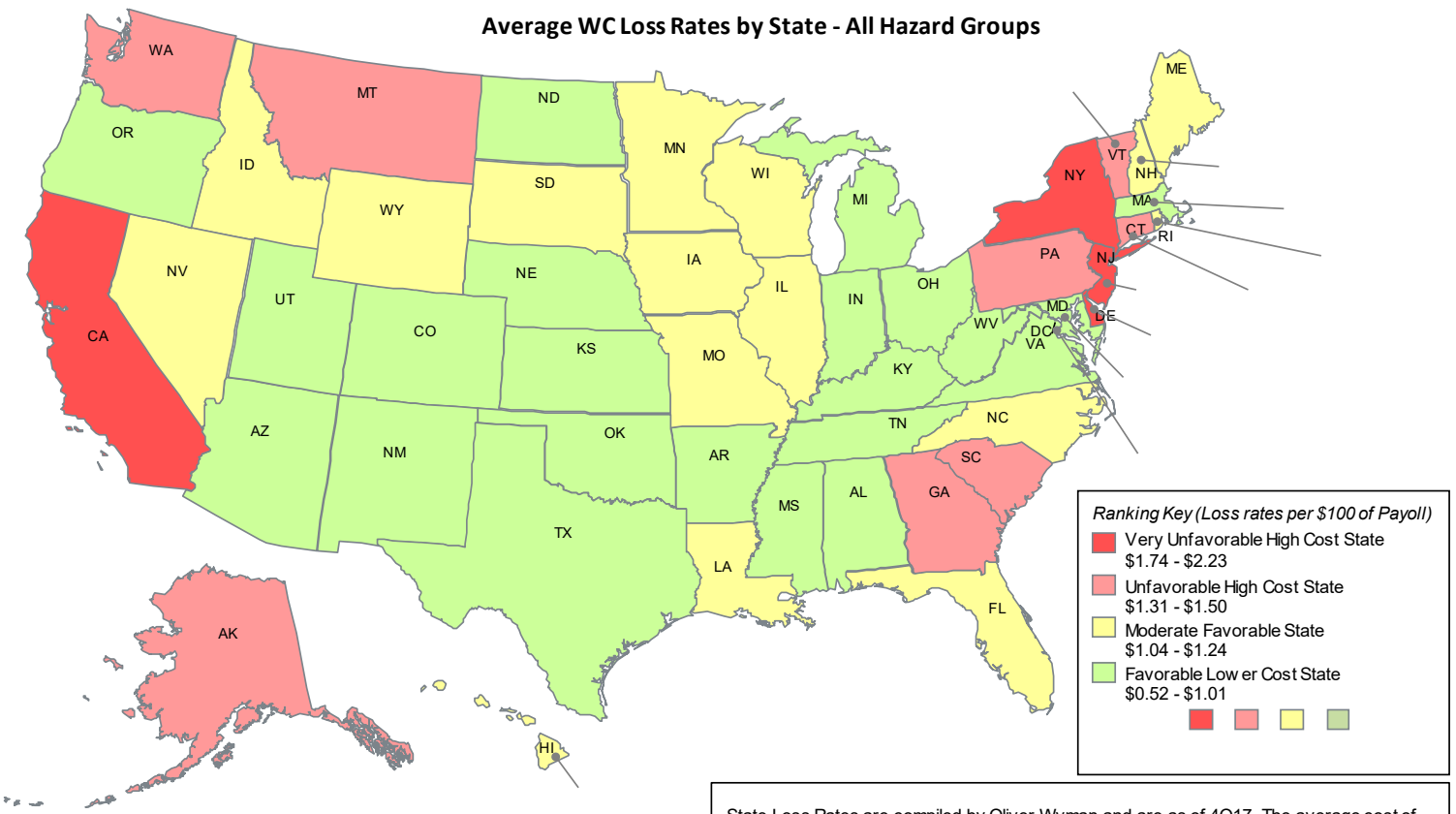
APPENDIX A

Marsh Workers' Compensation and General Liability Heat Map

Casualty Benchmarking – WC Loss Rate Heat Map

- Marsh has a Workers Compensation Heat Map tool. This tool shows that CA ranks in the Highest band of loss cost states based on Average State Loss Rates compiled by Oliver Wyman.

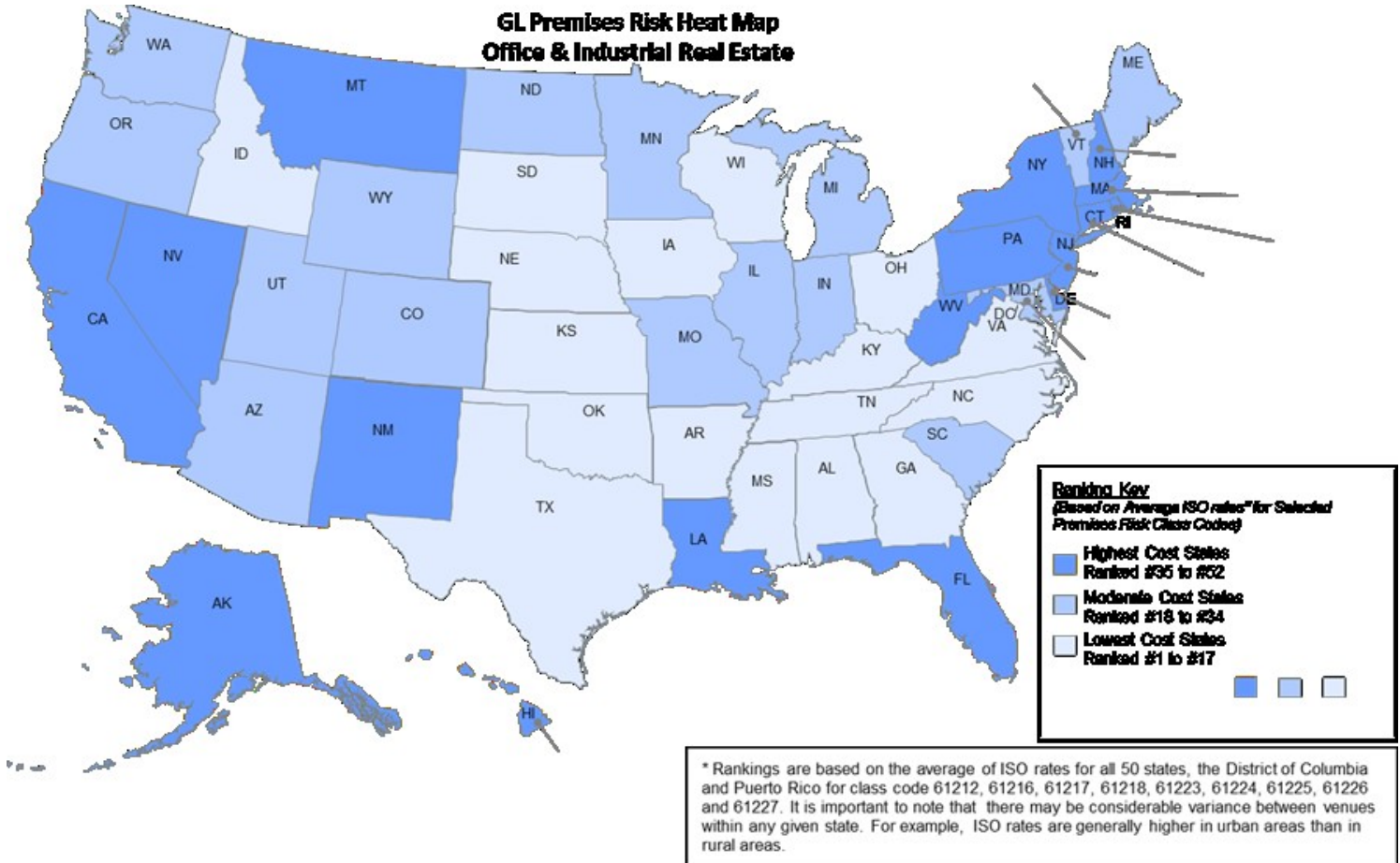
Average WC Loss Rates by State - All Hazard Groups



State Loss Rates are compiled by Oliver Wyman and are as of 4Q17. The average cost of benefits displayed in the map are based on a common payroll distribution by classification so that a meaningful comparison can be made between states. This payroll distribution is likely not representative of the payroll by classification for a typical employer. The information provided by this tool is useful in identifying the relative workers compensation cost of an employer, but not the absolute workers compensation cost, which will depend on an employer's own unique payroll distribution by classification.

Casualty Benchmarking – GL Loss Rate Heat Map

- Marsh has a General Liability Heat Map tool. This tool shows that CA ranks in the Highest band of loss cost states based on Average ISO rates for selected premises risk class codes.



APPENDIX G

**March 27, 2019 Investor Day (SoCalGas)
Presentation Excerpts**



U.S. Utilities | SoCalGas

Bret Lane, CEO Southern California Gas Company

March 27, 2019

SoCalGas | Utility Overview

Overview

- Largest natural gas local distribution company (LDC)⁽¹⁾ in North America with ~22 million consumers

Transmission⁽²⁾

- ~3,500 miles of transmission pipeline

Distribution⁽³⁾

- Nearly 100,000 miles⁽⁴⁾ of distribution pipeline

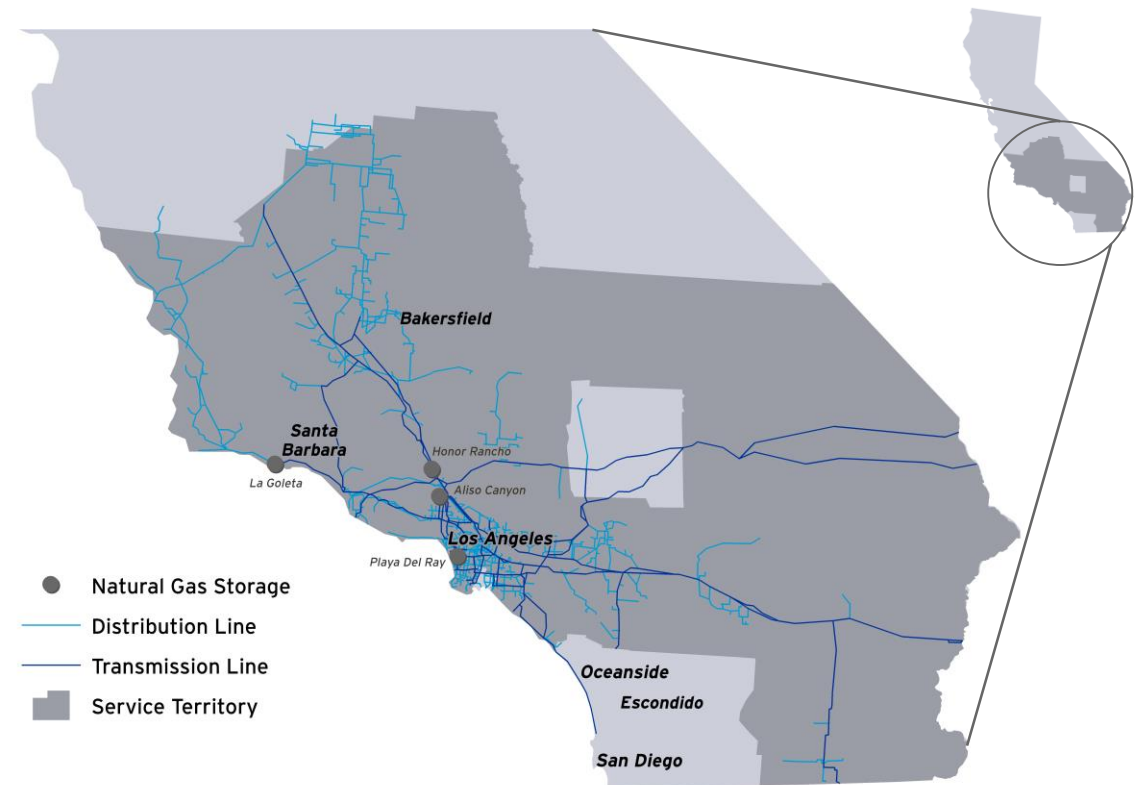
Storage⁽³⁾

- Four natural gas storage fields with over 130 Bcf working capacity⁽⁵⁾

Clean Technologies

- Two Renewable Natural Gas (RNG) projects connected to our natural gas system

Service Territory



Goal to be the cleanest natural gas utility in North America through delivering affordable and increasingly renewable energy to our customers

1) 2017 AGA ranking of companies by total sales revenue, total sales customers, residential sales volume, residential sales customers and industrial sales customers.

2) U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration "Annual Report for Calendar Year 2018 Natural or Other Gas Transmission and Gathering Systems."

3) As of 12/31/18.

4) Includes distribution and services pipelines.

5) Total working capacity at Aliso Canyon of 86 bcf is currently limited by CPUC directive to 34 bcf of working gas.

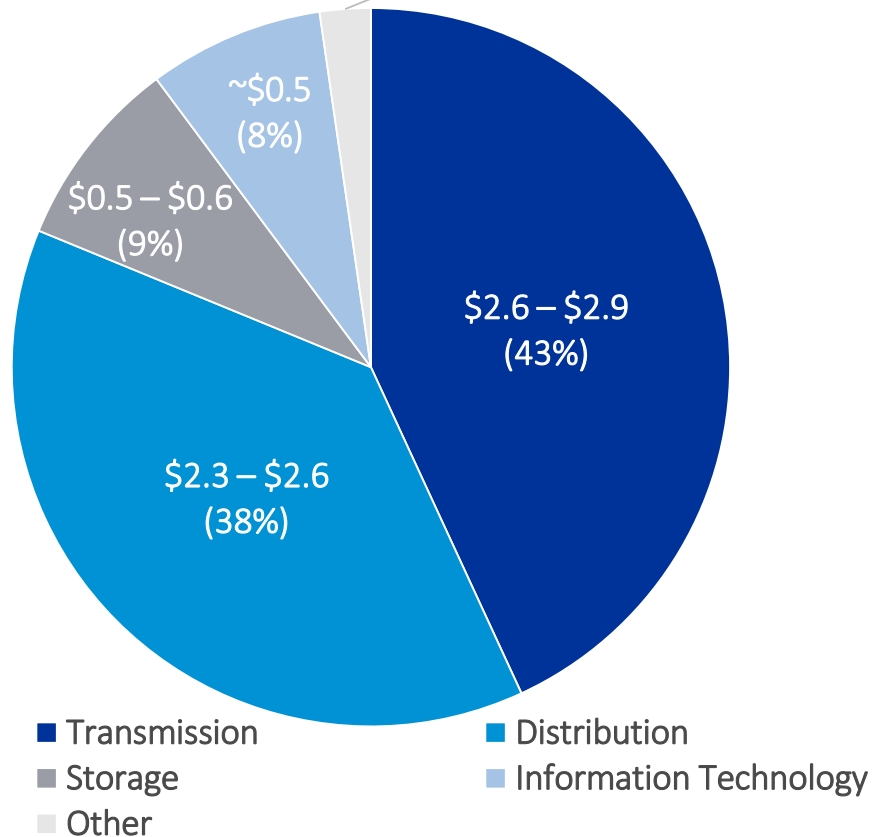
SoCalGas | Capital Plan Drives Projected Rate Base Growth

We strive to improve lives and communities by building the cleanest, safest and most reliable energy infrastructure in America – 90% of capital plan is related to safety and reliability

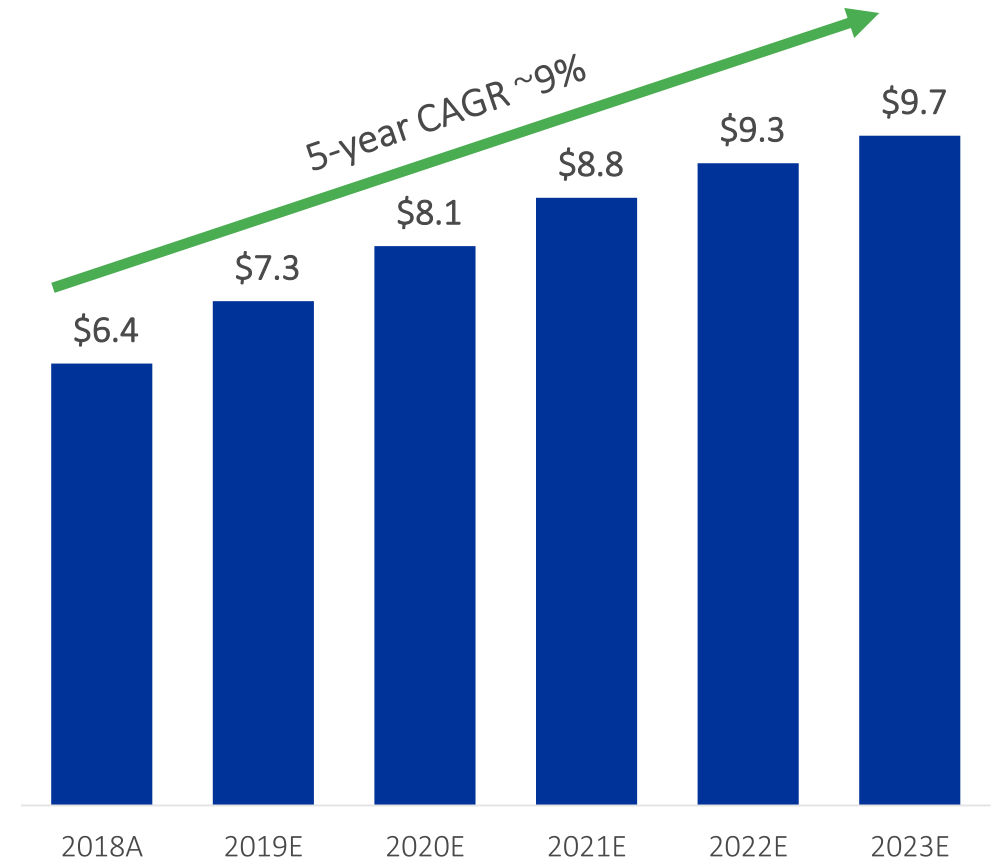
2019–2023 Capital Plan (\$B)^{(1),(2)}

\$6.1 - \$6.8 Billion

~\$0.2 (2%)



Rate Base (\$B)⁽³⁾



1) Key Assumptions in Plan: CPUC ROE 10.05%, Annual attrition of 3.5%; Not included in Plan: 2019 General Rate Case (GRC) outcome, New GRC | RAMP process. Percentages calculated based on midpoints of capex ranges.

2) The resolution of the 2019 GRC could cause actual amounts/results to differ materially from these assumptions. The 2019 GRC filed Oct-2017 included requested funding for Risk Assessment Mitigation Phase (RAMP).

3) Rate base figures represent 13-month weighted average, excluding CWIP. Actual amounts/results may differ materially.

SoCalGas | Project Spotlight – Distribution

Manage the safety, integrity and reliability of our natural gas distribution system through proactive, risk-based replacement and mitigation measures

- 1 Identify Risks
- 2 Analyze Risks
- 3 Evaluate and Prioritize Risks
- 4 Develop Risk Mitigation Plan and Measures
- 5 Make Risk-Informed Decisions and Implement Mitigation Plan
- 6 Monitor and Review Risk Mitigation Effectiveness

Overview

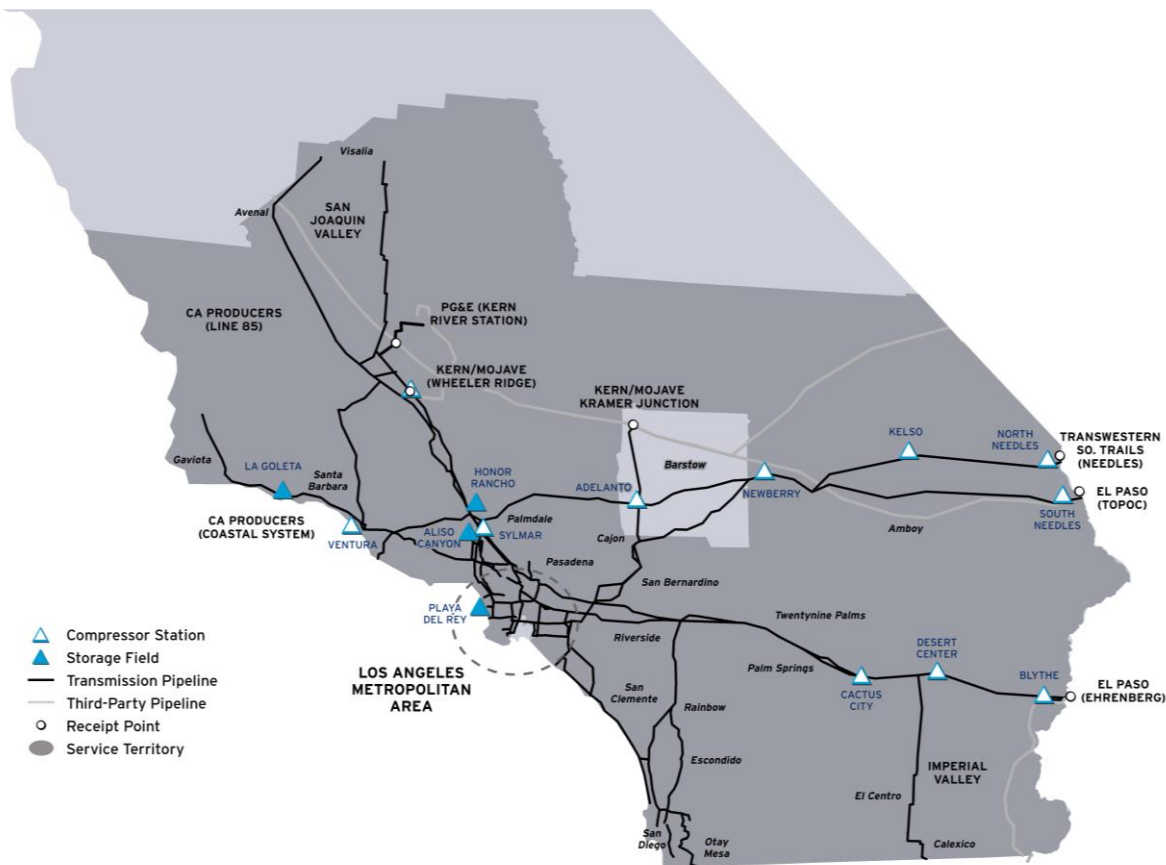
- Distribution Integrity Management Program (DIMP)
 - Largest U.S. gas distribution operator⁽¹⁾ with ~100,000 miles⁽²⁾
- Risk and Performance-Based Framework
 - Identify existing and potential threats to gas distribution system
 - Evaluate and prioritize risks
 - Implement Programs and Activities to Address Risk (PAARs)
 - Measure results and effectiveness of PAARs, and continuously improve DIMP

Distribution Capital Plan ⁽³⁾	
CPUC Base	\$1,155M - \$1,275M
DIMP	\$1,100M - \$1,220M
Mobile Home Park Program	\$45M - \$50M ⁽⁴⁾
Natural Gas Leak Abatement Program	\$20M - \$25M
Total	\$2,320M - \$2,570M

1) 2017 AGA ranking of companies by total sales revenue, total sales customers, residential sales volume, residential sales customers and industrial sales customers.
 2) Includes distribution pipelines and services pipelines as of 12/31/18.
 3) 2019-2023 capital plan. Actual amounts/results may differ materially.
 4) Only includes To-The-Meter capital plan. Does not include Beyond-The-Meter regulatory asset.

SoCalGas | Project Spotlight – Transmission

Manage the safety, integrity and reliability of our natural gas transmission system through proactive, risk-based replacement and mitigation measures



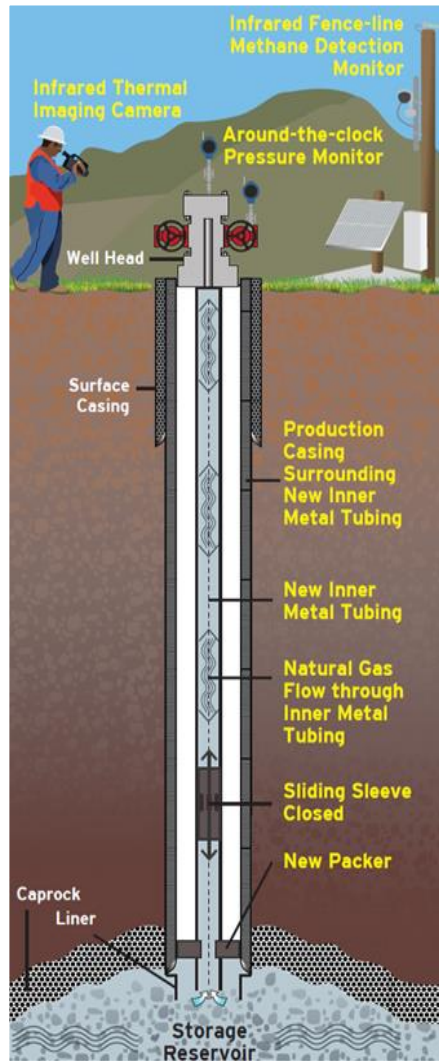
Overview

- Transmission Integrity Management Program (TIMP)
 - ~3,500 miles of transmission pipeline⁽¹⁾;
 - 3rd largest U.S. operator in High Consequence Areas (HCA)⁽²⁾
- Pipeline Safety Enhancement Plan (PSEP)
 - Over 80 miles tested and nearly 100 miles replaced since 2013⁽³⁾
- Risk and Performance-Based Framework
 - Identify existing + potential threats to gas transmission system
 - Evaluate and prioritize risks
 - Implement Programs + Activities to Address Risk
 - Measure results and effectiveness of PAARs, and continuously improve TIMP

Transmission Capital Plan ⁽⁴⁾	
CPUC Base	\$1,150M - \$1,270M
TIMP	\$370M - \$410M
PSEP	\$1,090M - \$1,205M
Natural Gas Leak Abatement Program	\$20M - \$25M
Total	\$2,630M - \$2,910M

1) U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration “Annual Report for Calendar Year 2018 Natural or Other Gas Transmission and Gathering Systems.”
 2) 2017 Gas Transmission & Gathering Annual Report –Pipeline and Hazardous Materials Safety Administration (PHMSA).
 3) Miles include SoCalGas and SDG&E.
 4) 2019-2023 capital plan. Actual amounts/results may differ materially.

SoCalGas | Project Spotlight – Storage



Manage the safety, integrity and reliability of our natural gas storage facilities through proactive, risk-based mitigation measures

Overview

- Four natural gas storage fields with working capacity of over 130 Bcf⁽¹⁾
- Storage Integrity Management Program (SIMP)
 - Safety and integrity enhancements to storage wells and processing facilities
 - Real-time monitoring of field operations and storage wells
- Risk and Performance-Based Framework
 - Validate safety and integrity of storage facilities and identify potential threats
 - Evaluate and prioritize risks
 - Implement mitigation measures to address risks

Storage Capital Plan ⁽²⁾	
CPUC Base	\$375M - \$415M
SIMP	\$120M - \$135M
Natural Gas Leak Abatement Program	\$25M - \$30M
<i>Total</i>	<i>\$520M - \$580M</i>

1) Total working capacity at Aliso Canyon of 86 bcf is currently limited by CPUC directive to 34 bcf of working gas.

2) 2019-2023 capital plan amounts. Actual amounts/results may differ materially.

SoCalGas | 2019-2023 Capital Plan^{(1),(2)}

\$6.1B - \$6.8B



		2019 - 2023 Capital Plan (\$B)
Total CPUC Gas, including:	▪ Base distribution, transmission and storage enhancements	\$6.1 – \$6.8
	▪ Gas transmission, distribution and storage integrity programs	
	▪ Test and modernize gas transmission pipelines	
	▪ Convert mobile home park spaces to direct utility service	
	▪ Implementation of best practices to reduce GHG emissions	
<i>Total</i>		\$6.1 – \$6.8

1) Key Assumptions in Plan: CPUC ROE 10.05%, Annual attrition of 3.5%; Not included in Plan: 2019 General Rate Case (GRC) outcome, New GRC | RAMP process. Percentages calculated based on midpoints of capex ranges. Actual amounts/results may differ materially.

2) The resolution of the 2019 GRC could cause actual amounts/results to differ materially from these assumptions. The 2019 GRC filed Oct-2017 included requested funding for Risk Assessment Mitigation Phase (RAMP).

SoCalGas | Incremental Capital Investments

Potential investments incremental to 2019 – 2023 Capital Plan and beyond

Descriptions	Status ⁽¹⁾	Potential Incremental Investment (\$M)
▪ Mobile Home Park Program OIR to expand beyond current pilot program	Pending ⁽²⁾	\$180 – \$200
▪ Natural gas fleet conversions and infrastructure for heavy-duty transportation	Potential Filing	80 – 100
▪ Continuation of best practices to reduce GHG emissions	Potential Filing ⁽³⁾	60 – 70
▪ Pilot projects to demonstrate dairy biomethane interconnection to pipeline system	Approved ⁽⁴⁾	30 – 40
▪ Liquefied natural gas facility	Potential Filing	TBD
▪ Conversion of electricity from solar and wind to hydrogen for storage	Potential Filing	TBD

1) Some of these potential investments require CPUC approval and the actual amounts/results of the investments may differ materially from these estimates.

2) Investment reflects amount requested in the application, not included in 5 Year Plan.

3) SoCalGas & SDG&E plan to file advice letters to continue the Leak Abatement Program after 2020 (funding though 2020 approved in Resolution G-3538).

4) D. 17-02-004 approves no less than 5 pilot projects in CA. SoCalGas awarded 4 out of 6 pilot projects in December 2018.