

Application: A.25-04-XXX
Exhibit No.: SCG-01
Witness: T. Sera

Application of Southern California Gas Company (U 904 G) to Recover Costs Recorded in the Transmission Integrity Management Program Balancing Account from January 1, 2019 to December 31, 2023.

A.25-04-XXX

CHAPTER I
PREPARED DIRECT TESTIMONY OF
TRAVIS T. SERA
(TIMP DEVELOPMENT AND IMPLEMENTATION)
ON BEHALF OF SOUTHERN CALIFORNIA GAS COMPANY

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

April 30, 2025

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CHAPTER I
PREPARED DIRECT TESTIMONY OF TRAVIS T. SERA
(TIMP Development and Implementation)

I. PURPOSE OF TESTIMONY

The purpose of my prepared direct testimony is to provide an overview of Southern California Gas Company's (SoCalGas) program development and implementation activities undertaken to execute the Transmission Integrity Management Program (TIMP), and to demonstrate that additions to the regulatory requirements that became effective between January 1, 2019 and December 31, 2023 required SoCalGas to perform more work in the TIMP program than originally forecasted in the Test Year (TY) 2019 General Rate Case (GRC). This application seeks to recover the under-collected revenue requirement in the TIMP Balancing Account (TIMPBA) of \$173.8 million, which is associated with expenditures that are above 35% of the authorized TY 2019 GRC cycle operations and maintenance (O&M) and capital expenditure from October 1, 2022 to December 31, 2023.¹

The increase in expenditures for TIMP from January 1, 2019 through December 31, 2023 were primarily due to: (1) the expansion of the TIMP regulatory requirements that increased the amount of threats categorized as active on SoCalGas pipelines, resulting in more assessment and remediation activity; and (2) the complexity of assessing desert region pipelines.

The changes to the TIMP regulatory requirements include but are not limited to:

- An increase in the number of pipe segments that required assessment for Manufacturing (M) and Construction (C) threats² due to an amendment of the Code of Federal Regulations (CFR) §192.917(e)(3).

¹ See Decision (D.) 19-09-051 at 694-695, which allowed SoCalGas to recover under-collections when actual expenditures exceed authorized O&M and capital expenditures by up to 35 percent via advice letter; and under-collections above 35 percent of authorized O&M and capital expenditures could be recovered through a separate proceeding. A \$227.3 million under-collection (up to 35% above the TY 2019 GRC authorized revenue requirement) for expenditures during the period of January 1, 2019-September 30, 2022 was approved for recovery in Commission Resolution (Res.) G-3600, amortized over a 12-month period starting July 1, 2024.

² As described in ASME B31.8S, Section 2.2 and Appendix A.

- 1 • An advisory bulletin from the Pipeline Hazardous Materials Safety Administration
2 (PHMSA) stating that the threat of Stress Corrosion Cracking (SCC) must be
3 considered active.³
- 4 • Acceleration of assessments for newly identified threats, such as the M, C, and SCC
5 threats prompted by a PHMSA interpretation of 49 CFR § 192.939⁴ and confirmed by
6 the California Public Utilities Commission (CPUC or Commission).
- 7 • An expansion of pipeline assessment requirements to include pipe segments located
8 within Moderate Consequence Areas (MCAs) and additionally within Class 3 and 4
9 pipelines that are not within identified High Consequence Areas (HCAs), as
10 mandated by additions to 49 CFR § 192.710.

11 While every change to the federal regulations required evaluation to determine its
12 potential impact on TIMP and overall SoCalGas activities, the primary increase in expenditures
13 resulted from the increased assessment work required to evaluate newly identified threats. Each
14 newly identified threat requires more inspections and direct examinations of the pipelines and
15 often resulted in remediation work which increases costs. Direct examination of pipelines is
16 resource intensive and requires excavation of the pipeline to allow 360° access to assess the
17 pipe's condition and to determine if any remediation work is required.

18 SoCalGas's continued efforts to manage pipelines in the desert region are made difficult
19 by the high volume and complexity of corrosion. In addition, ILI tools have limitations in their
20 ability to distinguish the characteristics of individual corrosion anomalies within areas of the
21 pipe with extensive corrosion of varying depths. The high volume and complexity of corrosion,
22 combined with the limitations of ILI tools, results in extensive direct examination work in the
23 desert region to support tool validation and pipeline remediation.

³ Pipeline Safety: Deactivation of Threats, 82 Fed. Reg. 50,14106 (March 16, 2017), *available at*:
<https://www.phmsa.dot.gov/regulations/federal-register-documents/2017-05262>.

⁴ PHMSA, John A. Gale, Director of Office of Standards and Rulemaking at PHMSA Letter to
Christine Cowsert VP, Gas Asset Mgmt. & System Operations at PG&E (June 23, 2021), *available*
at: [https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/standards-
rulemaking/pipeline/interpretations/75361/pacific-gas-and-electric-company-pi-21-0004-06-24-2021-
part-192939.pdf](https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/standards-rulemaking/pipeline/interpretations/75361/pacific-gas-and-electric-company-pi-21-0004-06-24-2021-part-192939.pdf).

1 **II. OVERVIEW OF TESTIMONY**

2 My testimony will discuss the Commission regulatory history and oversight mechanisms
3 applied to the TIMP, and the TIMP program cost components and how the new regulatory
4 compliance activities and the complexity of assessing desert region pipelines impacted these cost
5 components. These cost components provide the basis for the revenue requirements recorded in
6 SoCalGas’s TIMPBA. The technical project execution and management level detail is addressed
7 in the Prepared Direct Testimony of Jordan A. Zeoli, Fidel Galvan, and Travis T. Sera, Technical
8 Project Execution and Program Management, Chapter II, and the supporting workpapers.⁵

9 SoCalGas prudently executed its TIMP activities throughout 2019-2023 in efforts to
10 reduce risk and enhance safety by: (1) complying with new or updated sections within 49 CFR
11 Part 192 specifically related to TIMP as part of the Gas Transmission Safety Rule (GTSR),
12 updated interpretations of existing regulations, and the federal Pipeline and Hazardous Materials
13 Safety Administration (PHMSA) advisory bulletins that expanded the scope of the TIMP; and
14 (2) executing SoCalGas’s commitment to providing safe and reliable service at reasonable rates
15 through a process of continual safety enhancement by proactively identifying, evaluating, and
16 reducing pipeline integrity risks for transmission pipelines.

17 **III. TIMP IMPLEMENTATION**

18 **A. TIMP Objective**

19 SoCalGas is committed to providing safe and reliable service at reasonable rates through
20 a process of continual safety enhancement by proactively identifying, evaluating, and reducing
21 transmission pipeline integrity risk. This commitment requires SoCalGas to execute the TIMP in
22 accordance with assessment activities as required by 49 CFR § 192, Subpart O⁶, and later 49
23 CFR § 192.710. These activities include:

⁵ Workpapers were only prepared for ILI projects costing at least \$1 million, Retrofit Projects and Direct Assessment projects that primarily incurred costs from January 1, 2019, to December 31, 2023, *see* Chapter II and accompanying Workpapers, Exhibit (Ex.) SCG-02-WP.

⁶ Other subparts are incorporated, referenced or cited in Subpart O. On October 1, 2019, Pipeline and Hazardous Materials Safety Administration (PHMSA) issued the Pipeline Safety: Safety of Gas Transmission Pipelines: Maximum Allowable Operating Pressure (MAOP) Reconfirmation, Expansion of Assessment Requirements, and Other Related Amendments final rule as codified, in relevant part, in 49 CFR 192.710.

- 1 • maintaining and enhancing safety;
- 2 • maintaining consistency with local, state, and federal regulatory and legislative
- 3 requirements;
- 4 • maintaining overall system integrity and reliability; and
- 5 • supporting SoCalGas’s commitment to mitigate safety risks associated with
- 6 customer/public safety, infrastructure integrity, and system reliability.⁷

7 Under Subpart O and 49 CFR § 192.710, SoCalGas is required to continually identify
8 threats to its pipelines in HCAs, MCAs and Class 3 and 4 pipelines not in HCAs; determine the
9 risk posed by these threats, schedule and track assessments to address threats, conduct
10 assessments within prescribed timelines, collect information about the condition of the pipelines,
11 take actions to minimize applicable threats and integrity concerns to reduce the risk of a pipeline
12 failure, and report findings to regulators.

13 SoCalGas operates approximately 1,118 HCA miles out of 3,381 miles of transmission
14 pipelines as defined by the United States Department of Transportation (DOT).⁸ SoCalGas’s
15 service territory extends from the Mexican border to near Fresno, and from the Colorado River to
16 the Pacific Ocean. It operates in desert, urban, suburban, agricultural, and coastal zones. The
17 size and variety of locations in which SoCalGas operates has a direct and significant bearing on
18 overall costs to comply with TIMP regulatory requirements.

19 **B. TIMP Background**

20 SoCalGas’s TIMP implements the federal regulatory requirements set forth in 49 CFR
21 192 Subpart O and 49 CFR § 192.710.⁹ These federal pipeline regulations were first adopted
22 effective February 14, 2004, following the passage of the Pipeline Safety Improvement Act of
23 2002, to promote the continued safe and reliable operation of the country’s natural gas
24 infrastructure.

⁷ See A.17-10-008, Direct Testimony of Maria T. Martinez, Ex. SCG-14 (October 6, 2017) at MTM-1 to MTM-2, available at: <https://www.socalgas.com/regulatory/documents/a-17-10-008/SCG-14%20Martinez%20Prepared%20Direct%20Testimony.pdf>.

⁸ 49 CFR § 192.3.

⁹ Subpart O is incorporated into the Commission’s General Order (GO) 112-F.

1 In 2011, the California Legislature passed Senate Bill (SB) 879, codified as Public
2 Utilities Code (PUC) Section 969, which expressly requires that gas corporations “establish and
3 maintain a balancing account” to recover TIMP expenses and related capital expenditures for the
4 maintenance and repair of transmission pipelines. Accordingly, SoCalGas’s TIMPBA was
5 authorized through Decision (D.) 13-05-010, which approved SoCalGas’s TY 2012 GRC. The
6 TIMPBA was established to record actual O&M and capital-related costs associated with
7 SoCalGas’s TIMP and to track the difference between authorized and actual revenue
8 requirement.¹⁰ The TIMPBA has since been reauthorized in connection with SoCalGas’s TY
9 2016 and TY 2019 GRC decisions.¹¹

10 Pursuant to D.19-09-051, SoCalGas is authorized to submit a Tier 3 advice letter to seek
11 recovery of any TIMP under-collections of revenue requirement when actual expenditures
12 exceed the total authorized O&M and capital expenditures up to 35% for the entire cycle.¹² For
13 any under-collections of revenue requirement resulting from actual expenditures greater than
14 35% of the total authorized O&M and capital expenditures, SoCalGas may seek recovery
15 through a separate application.¹³

16 On November 23, 2022, SoCalGas submitted advice letter (AL) 6060-G requesting to
17 recover its TIMPBA under-collected balance of \$238.8 million as of September 30, 2022,¹⁴
18 representing the cumulative incremental revenue requirement associated with reasonably
19 incurred TIMP expenditures in excess of authorized TY 2019 GRC cycle O&M and capital
20 expenditures up to 35%. On May 30, 2024, the Commission adopted Resolution G-3600,
21 approving SoCalGas’s request to recover the under-collection recorded in its TIMPBA for the

¹⁰ SoCalGas, *Preliminary Statement - Part V - Balancing Accounts – TIMPBA*, available at:
<https://tariffsprd.socalgas.com/view/historical/?utilId=SCG&bookId=GAS&tarfKey=484&tarfYear=2020>.

¹¹ D.16-06-054 at 327 and D.19-09-051 at 777. The TIMPBA was most recently reauthorized for the four year cycle of SoCalGas’s TY 2024 GRC through D.24-12-074, as a one-way balancing account.

¹² D.19-09-051 at 694-695 and 774 (Conclusion of Law (COL) 104); *see also* A.17-10-008, Direct Testimony of Rae Marie Q. Yu, Ex. SCG-42 (October 6, 2017) at RQY-15 and Appendix B at RQY-B-1, available at: <https://www.socalgas.com/regulatory/documents/a-17-10-008/SCG-42%20Yu%20Prepared%20Direct%20Testimony.pdf>.

¹³ *Id.*

¹⁴ SoCalGas filed supplemental 6060-G-A on January 13, 2023 replacing 6060-G in its entirety, to correct the electronic file format to a searchable format.

1 period of January 1, 2019 to September 30, 2022. Resolution G-3600 found that “[c]hanges in
 2 assessment methods, increased labor and non-labor expenses and continuing remediation
 3 activities initiated prior to 2019 increased SoCalGas’s actual [TIMP] expenditures causing costs
 4 to be higher than forecast, and that examined TIMP expenses and expenditures were
 5 appropriately recorded and reasonably incurred.”¹⁵ Furthermore, in its approval, the Commission
 6 trued up the TIMPBA balance authorized for recovery to \$227.3 million, to account for on-going
 7 capital revenue requirement and interest associated with the O&M and capital projects included
 8 in Advice Letter 6060-G and authorized revenue collected for the TIMP through December 31,
 9 2023.¹⁶

10 Since October 1, 2022, SoCalGas has continued to record under-collections in its
 11 TIMPBA due to TIMP activities for the remainder of the TY 2019 GRC cycle. As of
 12 December 31, 2023, SoCalGas’s TIMPBA in total exceeded the authorized TY 2019 GRC cycle
 13 O&M and capital expenditures as shown in Table TTS-1. This application seeks to recover
 14 \$173.8 million of revenue requirement, which is the under-collections balance in the TIMPBA
 15 accumulated during the period of October 1, 2022 through December 31, 2023.

Table TTS-1
TIMP Expenditures (Authorized v. Actual, \$000)

Authorized	O&M	Capital	Total
2019	\$47,817	\$62,233	\$110,050
2020	49,080	55,190	104,270
2021	50,258	56,063	106,321
2022	51,231	56,724	107,955
2023	52,409	57,934	110,343
Subtotal	\$250,795	\$288,144	\$538,938

¹⁵ Res. G-3600 at 8 (Findings 8-9).

¹⁶ *Id.* (Findings 10-12).

Actual	O&M	Capital	Total
2019	\$75,952	\$106,467	\$182,419
2020	104,648	76,583	181,231
2021	103,839	112,503	216,342
2022	126,220	93,204	219,445
2023	121,233	135,109	256,322
2024*	(1,854)	(1,085)	(2,939)
Subtotal	\$530,038	\$522,782	\$1,052,820

Over/ (Under) Authorized			
\$	\$279,243	\$234,638	\$513,882
%	211%	181%	195%

Note: Subtotals may include rounding differences.

*2024 only includes adjustments for TIMP expenditures through December 31, 2023.

C. TIMP Cost Categories

SoCalGas has generally separated TIMP O&M and TIMP capital expenditures into the following four categories for presenting and describing TIMP activities: (1) Assessments and Remediation; (2) Preventative and Mitigative (P&M) Measures; (3) Data and Geographic Information Systems (GIS); and (4) Program Management and Support/Risk and Threat. While assessments and remediations have represented the majority of SoCalGas's TIMP-related work during this GRC cycle as anticipated, actual expenditures for each of the four cost categories have been higher than forecasted for reasons explained below. The total TIMP costs are summarized in Table TTS-2.

Table TTS-2
TIMP O&M and Capital Expenditures by Category (\$000)

Labor + Non-labor Recorded (\$000)	2019	2020	2021	2022	2023	2024	Total
O&M							
Assessments and Remediation Preventative and Mitigative (P&M) Measures Data and Geographic Information Systems (GIS) Program Management and Support/Risk and Threat	\$55,608	\$81,815	\$79,896	\$95,960	\$90,526		\$403,805
Adjustment						(\$1,854)	(\$1,854)
O&M - Subtotal	\$75,952	\$104,648	\$103,839	\$126,241	\$121,212	(\$1,854)	\$530,038
Capital Expenditures	\$106,467	\$76,583	\$112,503	\$93,204	\$135,109		\$523,867
Adjustment						(\$1,085)	(\$1,085)
Capital Expenditures - Subtotal	\$106,467	\$76,583	\$112,503	\$93,204	\$135,109	(\$1,085)	\$522,782
Total O&M and Capital	\$182,419	\$181,231	\$216,342	\$219,445	\$256,322	(\$2,939)	\$1,052,820

Note: Subtotals may include rounding differences.

*2024 only includes adjustments for TIMP expenditures through December 31, 2023.

1 In addition to the cost drivers discussed above, the approved methodology to calculate the
2 authorized revenue requirement in the post-test years for these programs impacted the resulting
3 TIMPBA under-collection. The TY 2019 GRC Decision (D.19-09-051) authorized a post-test
4 year (PTY) mechanism for SoCalGas, including TIMP, whereby authorized O&M expenses in the

1 PTYs are derived through escalation of the authorized TY 2019 O&M expenses.¹⁷ Authorized
2 capital expenditures are imputed in the PTYs based on a seven-year average of historical and
3 forecasted capital expenditures rather than project specific forecasts.¹⁸ This PTY mechanism
4 differs from the forecast of TIMP-related activities for the TY 2019 GRC cycle, therefore
5 contributing to the under-collection. Additional details on the calculation of TIMP authorized
6 expenditures associated with the TY 2019 GRC is provided in the Prepared Direct Testimony of
7 Rae Marie Yu (Chapter III).

8 **1. Assessments and Remediations**

9 TIMP is built upon federal and state requirements that go above and beyond routine
10 maintenance activities and mandate monitoring and remediation on the pipeline system with the
11 goal of reducing overall risk. One of the ways TIMP manages risk is through the execution of
12 assessments and remediation of anomalies discovered on transmission pipelines (which vary from
13 project to project based on assessment findings).

14 SoCalGas utilizes In-Line Inspection (ILI), External Corrosion Direct Assessments
15 (ECDA) and Stress Corrosion Cracking Direct Assessment (SCCDA) for the majority of the
16 pipeline integrity assessments. Where feasible, ILI of pipeline segments is the preferred method
17 of assessment. Further, during the TY 2019 GRC cycle, the requirement to identify additional
18 threats prompted SoCalGas to take actions to expand the range of pipe segments inspectable by
19 threat specific ILI tools. These efforts represent both best practice and a response to new federal
20 regulations that included several new or updated sections within 49 CFR Part 192 as part of the
21 Gas Transmission Safety Rule (GTSR)¹⁹, updated interpretations of existing regulations, and

¹⁷ D.19-09-051 at 776 (OP 4).

¹⁸ *Id.*

¹⁹ On October 1, 2019, Pipeline and Hazardous Materials Safety Administration (PHMSA) issued the Pipeline Safety: Safety of Gas Transmission Pipelines: Maximum Allowable Operating Pressure (MAOP) Reconfirmation, Expansion of Assessment Requirements, and Other Related Amendments final rule, which took effect July 1, 2020. On April 8, 2022, PHMSA issued the Pipeline Safety: Requirement of Valve Installation and Minimum Rupture Detection Standards final rule, which took effect October 5, 2022. On August 24, 2022, PHMSA issued the Pipeline Safety: Safety of Gas Transmission Pipelines: Repair Criteria, Integrity Management Improvements, Cathodic Protection, Management of Change, and Other Related Amendments final rule, which took effect May 24, 2023. The TIMPBA includes costs associated with the expansion of the TIMP requirements.

1 PHMSA advisory bulletins that expanded the scope of the TIMP. New and updated sections that
2 impacted TIMP cost include but are not limited to:

- 3 • An enhanced requirement that resulted in previously stable M and C threats being newly
4 categorized as active, prompting additional assessments and direct examinations.
5 SoCalGas reviewed pipeline segment records to determine if any newly identified M and
6 C threats would require inspection, data analysis, direct examination, and assessment
7 under the new requirements in 49 CFR § 192.917(e)(3).
- 8 • A PHMSA advisory bulletin declaring the SCC threat to be considered “active” by
9 default for all pipeline segments. Pipeline segments determined to have a susceptibility
10 to the SCC threat had to be inspected for SCC using either ILI tools or SCCDA, which
11 then required direct examinations to validate the results of the inspections for each
12 assessment method.
- 13 • Accelerated assessments for newly identified threats. PHMSA interpretation of 49 CFR
14 § 192.939 “What are the required reassessment intervals” declared that when a new threat
15 is identified on a pipeline segment, that newly identified threat must be assessed by the
16 deadline associated with the segment’s existing assessment interval. For instance, where
17 M, C, and/or SCC threats were previously categorized as inactive, the new requirements²⁰
18 prompted the use of applicable inspection methods for these threats within the current
19 reassessment cycle even if that cycle was ending in the same year GTSR Part 1 took
20 effect.
- 21 • A new assessment requirement for MCAs added to 49 CFR § 192.710. The SoCalGas
22 pipeline system was evaluated to determine where new MCAs are present, and
23 assessment scopes were to be expanded to include the new MCAs.

²⁰ GTSR Part 1 enhancement of 49 CFR § 192.917(e) and Pipeline Safety: Deactivation of Threats, 82 Fed. Reg. 50,14106 (March 16, 2017), available at: <https://www.phmsa.dot.gov/regulations/federal-register-documents/2017-05262>.

1 **a) Assessment and Remediations – Cost Drivers**

2 **(1) New Threats Required Using Additional ILI Tools**
3 **and in Some Cases Retrofits**

4 In order to comply with the changes in threat assessment and associated timelines, new
5 and/or additional inspection technologies had to be employed for segments with newly identified
6 threats that were not previously anticipated prior to 2019-2023. The M and C threats can be
7 assessed using ILI or Pressure Test (PT). SCC can be assessed by either ILI, PT, or SCCDA.²¹
8 ILI tools utilized by SoCalGas to evaluate the SCC, M, and C threats include Axially oriented
9 Magnetic Flux Leakage (MFL-A), Circumferentially oriented Magnetic Flux Leakage (MFL-C),
10 and Electromagnetic Acoustic Transducer (EMAT).

11 Deployment of ILI tools in pipelines that have not been previously inspected using ILI
12 require the installation of launchers and receivers necessary to enable ILI tool ingress and egress.
13 There may also be a need for pipeline retrofits to remove ILI restrictions such as unbarred tees,
14 valves that do not allow ILI tool passage, and abrupt changes in pipeline diameter and/or wall
15 thickness. The use of new inspection tools such as EMAT necessitates the development of
16 engineering processes to evaluate the inspection results and determine the appropriate response.
17 The results from multiple inspections of the same pipe segment with new and different ILI tools
18 requires integration of multiple data sets to identify potentially interacting anomalies, which in-
19 tun necessitates additional training of integrity engineers, and requires additional process steps
20 for reviewing the results of the inspection.

21 **(2) New Active Threats Required Assessing More**
22 **Miles**

23 The identification of new active threats on SoCalGas pipeline segments and associated
24 assessment timelines required SoCalGas to increase its use of ILI tools to inspect for crack and
25 long seam defects. For example, 978 miles of SoCalGas pipeline were assessed using
26 specialized crack or long seam defect detection ILI tools in the TY 2019 GRC cycle, compared
27 to 130 miles during the TY 2016 GRC cycle. This increase in mileage coupled with the use of
28 specialized smart tools such as EMAT was a substantial cost driver. SoCalGas estimates it spent

²¹ SCC, M, and C threats cannot be assessed using the ECDA assessment method.

1 approximately \$15M during the TY 2019 GRC cycle to use EMAT tools to inspect these
2 pipelines, which does not include the cost to perform the required validation direct examinations
3 and any resulting remediations. Additional information related to these inspections, excavations,
4 and remediations are described in Chapter 2.

5 **(3) Expansion of Assessment Scope Required More** 6 **Direct Examinations**

7 The new threat identification requirements expanded the assessment scope by adding
8 threats to pipeline segments that were already managed in the TIMP program. This expansion of
9 the assessment scope meant that pipelines with newly identified threats that had been previously
10 assessed needed to be re-assessed for the newly identified additional threats during the TY 2019
11 GRC cycle. Every threat assessed on a pipeline typically has a unique set of inspection
12 requirements, direct examinations, data analysis, and assessment. Dedicated direct examinations
13 must be selected to validate the ECDA, ILI and SCCDA inspection results, which sometimes
14 doubled or more the number of excavations required to complete the assessment of the pipeline
15 segment.

16 **(4) High Volume and Complexity of Corrosion on** 17 **Desert Pipeline**

18 The desert environment introduces additional difficulties in maintaining effective
19 cathodic protection on pipelines typically related to cathodic protection shielding due to rocky
20 soil and accelerated degradation of protective coal tar coating. Improvements to the ILI's ability
21 to detect areas of shallow corrosion have increased the volume and complexity of corrosion.
22 This improvement, when combined with the limitations of the ILI to characterize deeper
23 individual corrosion anomalies led to an increase in the number of direct examinations on desert
24 pipelines.

25 **2. Preventative and Mitigative Measures**

26 P&M measures are a fundamental aspect of the TIMP and are referenced throughout 49
27 CFR Part 192 and American Society of Mechanical Engineers (ASME) B31.8S. Preventative
28 actions are those that can be taken to reduce or eliminate an integrity threat, such as applying
29 protective coating and cathodic protection to a pipeline to reduce corrosion. Mitigative actions

1 reduce the impact of integrity threats that are already present on the pipeline, such as installing
2 automatic shut off valves to lessen the consequence of pipeline failure.

3 The TIMP continues to use data obtained during assessments to inform when and where
4 various P&M measures can be implemented or enhanced to reduce system risk by integrating the
5 assessment data with existing operational data. P&M activities include but are not limited to
6 damage prevention, corrosion control, and leak survey. For example, during the TY 2019 GRC
7 cycle, the results of certain TIMP assessments identified opportunities to reduce system risk
8 along the assessed segments by installing additional cathodic protection infrastructure. TIMP
9 works with the operational groups responsible for cathodic protection to determine the
10 appropriate scope and extent of the installation of additional cathodic protection infrastructure.

11 **3. Data and Geographic Information Systems**

12 The High-Pressure Pipeline Database (HPPD) houses and maintains the data collected for
13 transmission pipelines during the pre-assessment process, various assessments, and remediation
14 efforts completed as part of TIMP. Updates to the HPPD are required to continuously reflect
15 changes in the pipeline system based on new construction, replacements, abandonments, or re-
16 conditioning of pipelines for not only TIMP-related projects, but also for all company-wide
17 projects to holistically analyze the entire transmission pipeline system. Various tool sets
18 (applications) used within the HPPD allow for the analysis and identification of HCAs, risk
19 evaluation of the transmission system, and the creation of Assessment Plans. The HPPD
20 operates using proprietary software that requires licensing and subscription fees. In addition,
21 ongoing best practices for digitizing records, updating databases, and improving the GIS system
22 contributed to the expenses in this Application.

23 New and updated sections within 49 CFR Part 192 that took effect July 1, 2020 prompted
24 changes to the process that the HPPD uses to determine whether a pipe segment is within the
25 newly-defined MCA, as well as whether M and C threats related to cracking are present on
26 pipeline segments. The additional assessments required to assess for more threats on pipeline
27 segments generated more data and information, necessitating significantly more record reviews
28 and follow-on GIS and HPPD updates than originally planned for in the TY 2019 GRC cycle.

1 **4. Program Management and Support/Threat and Risk**

2 Program Management and Support expenses include the salaries and expenses associated
3 with developing and supporting updates to the integrity management program, data management,
4 and risk management of the transmission pipelines. The activities prescribed by Subpart O and
5 later 49 CFR § 192.710, are primarily implemented and managed by the TIMP team, which is
6 comprised of engineers, project managers, technical advisors, project specialists, and other
7 employees with varying degrees of responsibility for the proper functioning of a complex and
8 integrated program.

9 Also included in this cost category are incremental efforts to support compliance with
10 new federal regulations that began taking effect on July 1, 2020.²² These activities included the
11 development and implementation of new standard operating procedures and updating of existing
12 standard operating procedures to promote consistent and safe processes that comply with
13 expanded regulatory obligations. Company personnel and contracted consultants collaborated to
14 evaluate requirements, analyze pipeline data, and provide guidance to implement process
15 improvements for assessment projects, enhance data management tools, and identify compliance
16 initiatives to be managed outside of the TIMP. These activities were incremental and were not
17 forecasted at the time of the TY 2019 GRC.

18 The Threat and Risk team performs threat identification and risk assessment of
19 transmission pipelines per Subpart O, and 49 CFR § 192.710. As described in the TY 2019
20 GRC, threat identification and risk assessment are considered the starting point in SoCalGas’s
21 TIMP implementation process.²³ SoCalGas uses a prescriptive approach for threat identification,
22 which includes the nine threat categories described in ASME Standard B31.8S: External
23 Corrosion; Internal Corrosion; Stress Corrosion Cracking; Manufacturing; Construction;
24 Equipment; Mechanical; Incorrect Operations; and Weather Related and Outside Force. All
25 pipelines operated in HCAs and segments defined in 49 CFR § 192.710 are evaluated for each
26 threat category. A relative risk assessment is applied to identified threats in each HCA segment.
27 The relative risk assessment integrates relevant threats, industry data, and Company experience

²² 49 CFR 192.710.

²³ A.17-10-008, Ex. SCG-14 (Martinez) at MTM-14.

1 to prioritize HCA pipeline segments for integrity management actions including baseline
2 assessments, integrity reassessments, and P&M activities.²⁴

3 As an additional step of this threat identification and risk assessment process, SoCalGas
4 has expanded the research involving construction threats and weather related/outside force
5 threats. For example, to better understand the dynamics of certain construction threats, the
6 Company has initiated a centralized effort to oversee the performance of destructive testing on
7 wrinkle bends - an incremental activity starting in 2020 not accounted for in the TY 2019 GRC
8 cycle. In addition, the Company has worked with technology suppliers to better evaluate the
9 susceptibility of its system to geohazard threats. This additional information will provide
10 valuable understanding and help guide strategies to prevent and mitigate this threat, and enhance
11 pipeline safety and reliability.

12 **IV. TIMP COST MANAGEMENT AND OVERSIGHT MEASURES**

13 The TIMP activities are tracked following internal accounting guidelines. SoCalGas's
14 TIMP cost management and oversight measures are supported by an accounting and finance
15 team that evaluates capital and O&M costs, and who communicates and reports to management
16 and teams responsible for project costs. The following describes the TIMP financial oversight
17 processes that SoCalGas used throughout the course of the TY 2019 GRC cycle:

- 18 • TIMP-specific budget codes and work types are assigned to internal orders for each
19 activity to track and allocate costs properly.
- 20 • Quarterly and annual budgets, outlooks and forecasts are established to monitor and track
21 spending for the TIMP.
- 22 • Monthly cost reports are produced and distributed to allow for prudent review by
23 program management personnel.
- 24 • Quarterly reviews of program costs are performed by the financial team to reclassify any
25 non-program costs, if necessary.
- 26 • The project teams assist with the coding and accounting for costs as incurred, as well as
27 reviewing posted transactions for validity and proper inclusion in the balancing account.

²⁴ *Id.*

- Quarterly confirmations are provided to the company’s Regulatory Accounting group attesting to the material accuracy of the balancing account transactions.

V. CONCLUSION

SoCalGas’s TIMP has continued to evolve and adapt to new regulatory changes, identify and assess risks, remediate conditions that present a potential threat to pipeline integrity, monitor program effectiveness, and promote safety and reliability to its customers. The under-collection requested in this application for TIMP is reasonable to support the activities that are required to meet federal and state requirements as described within our testimony and should be adopted by the Commission.

This concludes my prepared direct testimony.

1 **VI. WITNESS QUALIFICATIONS**

2 My name is Travis T. Sera. I am employed by SoCalGas as the Director of Integrity
3 Management for SoCalGas and SDG&E. My business address is 555 West Fifth Street, Los
4 Angeles, California, 90013-1011.

5 I joined SoCalGas as a full-time employee in 1995 and have held various positions of
6 increasing responsibility within the Gas Engineering and System Integrity department. I left
7 SoCalGas briefly, from 2003 to 2005, and during this time held the title of Senior Consulting
8 Engineer for Structural Integrity Associates, an engineering consulting firm to the nuclear, petro-
9 chemical, and pipeline industries.

10 I have been in my current position at SoCalGas since 2019. My responsibilities include
11 oversight of the Transmission Integrity Management Program and the Distribution Integrity
12 Management Program, in addition to the broad application of Integrity Management principles
13 across various departments within SoCalGas and SDG&E. I have a Bachelor of Science degree
14 in Materials Engineering from California Polytechnic State University - San Luis Obispo, I am a
15 registered Professional Metallurgical Engineer in the State of California, and I hold a CP4 -
16 Cathodic Protection Specialist certification from the Association of Materials Protection and
17 Performance (AMPP).

18 I have previously testified before the Commission.