2026 SB 1371

COMPLIANCE PLAN

SoCalGas™

Introduction

SoCalGas submits this Biennial Compliance Plan on March 13, 2026 (Compliance Plan) as part of the Natural Gas Leak Abatement Program (NGLAP or Program). Implementation of the measures described in this Compliance Plan is planned during years 2027 and 2028 (2026 Compliance Period). For work planned in 2027, SoCalGas plans to begin implementation during January 2027 because funding for such period was authorized in Resolution G-3605. For work planned in 2028, SoCalGas plans to begin implementation in 2028 following the approval of SoCalGas' TY 2028 GRC Application.

Measures proposed in this Compliance Plan are for activities that are incremental to safety and specific to the emission reduction goals of Decision (D.) 19-08-020. SoCalGas currently has policies and procedures in place to meet environmental and safety regulations implemented by various state and federal agencies, including, but not limited to, the U.S. EPA, PHMSA, CalGEM, OSHA, CARB, and local air pollution control districts. Some of these policies and procedures overlap with those supporting SB 1371 requirements that are addressed in the relevant Chapters herein.

Emission Reductions from 2015 Baseline

The current 2015 emissions inventory baseline for SoCalGas' system is 1,953,795 MCF. Estimated emission reductions resulting from major activities proposed in this Compliance Plan during 2027 and 2028 are currently 1,102,075 MCF and 1,438,196 MCF, respectively. Assuming that SoCalGas will be authorized to continue the activities proposed in this Compliance Plan through 2030, SoCalGas estimates that it will achieve a 32% reduction from baseline in 2030. Notably, baseline emissions are periodically updated as new methodologies are identified and approved. As such, the estimated percentage reductions and emission levels presented in this Compliance Plan may differ from the results observed in future years.

Table 1 below, Major Efforts to Reduce Emissions, summarizes SoCalGas' proposed major activities and estimated emission reductions proposed in the 2026 Compliance Plan.

Table 1: Major Efforts to Reduce Emissions – SoCalGas

Chapter	2027 Emission Reduction, MCF	2030 Emission Reduction, MCF	Standard Cost Effectiveness ($/MCF), (2027-2028)	Net Cost Effectiveness** ($/MCF), (2027-2028)
Chapter 1 – Leak Inventory Reduction	555,560	555,560	24	-3
Chapter 2 – Increased Leak Survey*	146,308	146,308	N/A	N/A
Chapter 3 – Blowdown Reduction Activities	398,905	398,905	12	-16
Chapter 14 – Aerial Monitoring (System Only)	0	275,165	25	-3
Chapter 15 – Damage Prevention Public Awareness	1,302	15,233	99	72
Program Totals	**1,102,075**	**1,391,171**	**18**	**-10**
Percentage Reduction Relative to 2015 Baseline	**28%**	**32%**		

*Cost Effectiveness for Chapter 2 cannot be calculated because SoCalGas is not requesting funding for this Chapter (See Chapter 2 for details)

**Net Cost Effectiveness reflects the Standard Cost Effectiveness with Avoided Cap & Invest and Social Cost of Methane Cost Benefits

Emission Reduction Estimation Assumptions

- SoCalGas is using leaker-based emission factors to estimate 2027, 2028, and 2030 Distribution Main & Service Pipeline leak emissions and MSA leak emissions. SoCalGas is utilizing the same emission factors that were submitted in the 2025 Annual Emissions Report to estimate emissions for Chapters 1, 2, and 15. SoCalGas is using the emission

factors that were submitted in the "SoCalGas and SDG&E 2022 Aerial Methane Mapping Research & Cost Effectiveness Summary Report" from February 2023 to estimate emissions for Chapter 14.

- To estimate overall reductions relative to baseline, SoCalGas estimated the impact of the proposed activities on annual emissions during 2027 and 2030, and these volumes were assessed relative to the 2015 baseline volume.

Emission models used to forecast reductions will have some degree of variation and the final observed reduction may be higher or lower. Based on information and technologies currently available, SoCalGas is proposing to implement measures that maximize cost-effective emission reductions as reasonably as possible and then maintain the reduced emission levels through 2030 and beyond. As research projects and pilots are completed, more accurate modeling may become available. Furthermore, new technologies may become commercially available to further reduce emissions beyond what is currently forecasted. Notably, in order to sustain emission reductions through 2030, programs will need continued funding for O&M.

In addition to the emissions forecasted to be reduced from SoCalGas' system, SoCalGas is proposing to use emerging technologies to reduce post-meter (customer) emissions, further discussed in Chapter 14 (Aerial Monitoring). Although these reductions are not currently reflected in SoCalGas' Annual Emissions Report, these activities support the state's climate goals and the spirit of Senate Bill 1371.

Calculating Cost Effectiveness

SoCalGas calculates the cost effectiveness of its projects with avoided Cap & Invest (formerly Cap & Trade) costs, and social cost of methane as follows:

Historical Standard Cost Effectiveness:

$$\frac{(RRR - Cost\ Benefits)_{2018\text{-}2024}}{Emissions\ Reductions_{2018\text{-}2024}}$$

Pursuant to D.19-08-020, SoCalGas also calculates cost effectiveness with avoided Cap & Invest costs, and social cost of methane as follows:

Historical Cost Effectiveness with avoided Cap & Invest Costs:

$$\frac{(RRR - Cost\ Benefits - Avoided\ Cap\ \&\ Invest\ Costs)_{2018\text{-}2024}}{Emissions\ Reductions_{2018\text{-}2024}}$$

Historical Cost Effectiveness with avoided Social Cost of Methane and Cap & Invest Costs:

$$\frac{(RRR - Cost\ Benefits - Avoided\ Cap\ \&\ Invest\ Costs - Social\ Cost\ of\ Methane)_{2018\text{-}2024}}{Emissions\ Reductions_{2018\text{-}2024}}$$

Future Standard Cost Effectiveness:

$$\frac{(AARR - Cost\ Benefits)_{2027\text{-}2028}}{Emissions\ Reductions_{2027\text{-}2028}}$$

Pursuant to D.19-08-020, SoCalGas also calculates cost effectiveness with avoided Cap & Invest costs, and social cost of methane as follows:

Future Cost Effectiveness with avoided Cap & Invest Costs:

$$\frac{(AARR - Cost\ Benefits - Avoided\ Cap\ \&\ Invest\ Costs)_{2027\text{-}2028}}{Emissions\ Reductions_{2027\text{-}2028}}$$

Future Cost Effectiveness with avoided Social Cost of Methane and Cap & Invest Costs:

$$\frac{(AARR - Cost\ Benefits - Avoided\ Cap\ \&\ Invest\ Costs - Social\ Cost\ of\ Methane)_{2027\text{-}2028}}{Emissions\ Reductions_{2027\text{-}2028}}$$

Cost Effectiveness Assumptions and Supporting Details

- AARR = Average annual revenue requirement, calculated by dividing the cumulative revenue requirement for each measure by the useful life of the measure or asset.
- RRR = Realized revenue requirement. It should be noted that AARR and RRR will not match up by definition. Using an "average" does not account for the "realized" due to actual timing of when costs hit and the magnitude and mix of O&M and capital spending. As such, the corresponding AARR and RRR will result in variances.
- The cost benefit values utilized in the 2026 Compliance Plan are as follows:
    - The social cost of methane is $25.92/MCF. The social cost of methane from the 2024 Compliance Plan was adjusted for inflation using the California Consumer Price Index to arrive at the updated value.
    - The cost benefit of the reduced cost of gas was evaluated at the forecasted average annual WACOG published in the 2024 California Gas Report, converted to cost per MCF using a BTU conversion factor of 1.0317 MCF/MMBtu, resulting in a cost benefit of $5.46/MCF.
    - Cap & Invest costs are $32.83/MT$CO_2$e, assuming December 2027 vintage prices, based on a 5-day average of trading days January 21 – 26, 2026. This futures data was acquired from the International Exchange. Converting from MTCO_2e to MCF results in a cost benefit of $1.79/MCF.

SoCalGas Table of Concordance

Chapter	Best Practices Addressed	Subject	Page Number
1	15,16, 20a, 21	Leak Inventory Reduction	8
2	15, 16	Increased Leak Survey	13
3	23, 3-7	Blowdown Reduction Activities	16
4	15, 16, 20a, 21	Large Leak Prioritization	21
5	24, 25, 26	Damage Prevention Algorithm & Proactive Intervention	24
6	17	Advanced Meter Analytics Algorithm	26
7	9	Recordkeeping IT Project	28
8	9, 20b	Geographic Tracking	33
9	13	Competency Based Training Development	36
10	13	Training Facility Enhancements	38
11	23	Blowdown Reduction Projects at Storage	40
12	18	Stationary Methane Detectors	42
13	20b	Electronic Leak Survey	44
14	16, 17, 20a	Aerial Monitoring	47
15	24, 25, 26	Damage Prevention Public Awareness	54
16	22	Pipe Fitting Specifications	58
17	26	Repeat Offenders IT Systems	61
18	21	Accelerated Leak Repair - Transmission	63
19	17	Gas Speciation	65
20	20b	Public Leak Maps	67
21	21,23	Leak and Vented Emission Reduction - Transmission Compressor Facilities	69
22	23	Vapor Collection Systems	71
23	19	Distribution Above Ground Leak Survey	73
24	19, 21	Storage Above Ground Leak Survey	75
25	19, 21	Distribution Above Ground Leak Repair	77
26	23	High Bleed Device Replacement	79

SoCalGas Acronym Library

Acronym	Definition
49 CFR 192	PHMSA Regulation - Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards
811	National call-before-you-dig phone number
AARR	Average annual revenue requirement
ACOR	Atmospheric Corrosion
AG	Above Ground
AM	Advanced Meter
AMM	Aerial Methane Mapping/Aerial Monitoring
AOC	Abnormal Operating Conditions
API	American Petroleum Institute
ARSA	Area Resource Scheduling Advisor
BP	Best Practice
BTU	British thermal unit
CalGEM	California Geological Energy Management Division
CARB	California Air Resources Board
CCSLB	California Contractor State License Board
CFH	Cubic feet per hour
CFR	Code of Federal Regulations
CNG	Compressed Natural Gas
CPDR	Company Property Damage Report
CPUC	California Public Utilities Commission
CT	Construction Technician
DIMP	Distribution Integrity Management Program
DAC	Disadvantaged Communities
EDAPO	Engineering Data Analytics and Performance Optimization
ELS	Electronic Leak Survey
EPA	Environmental Protection Agency
G.O. 112-F	State General Order Governing Design, Construction, Testing, Operation, and Maintenance of Gas Gathering, Transmission, and Distribution Piping Systems
GIS	Geographic Information System
GML	Gas Mapping LiDAR™
GRC	General Rate Case
GS	Gas Standard
HESD	Historizing Emission Sensor Data
LiDAR	Light Detection and Ranging
M&R	Measurement and Regulation
MCF	Thousand cubic feet

Acronym	Definition
MMBtu	Million British thermal units
MSCF/MCF	Thousand standard cubic feet
MSA	Meter Set Assembly
MSP	Material Specification Properties
$MTCO_2e$	Metric tons of Carbon Dioxide equivalent
N/A	Not Applicable
NGLAP	Natural Gas Leak Abatement Program
NSOTA	Non-State-of-the-Art
NZE	Net Zero Emissions
O&M	Operations & Maintenance
PE	Polyethylene
PHMSA	Pipeline and Hazardous Materials Safety Administration
PPM	Parts Per Million
psig	Pounds per square inch gauge
QC	Quality Control
RD&D	Research, Development, & Demonstration
RP	Recommended Practice
ROW	Right of Way
RRR	Realized Revenue Requirement
SB	Senate Bill
SCF	Standard cubic feet
SED	Safety and Enforcement Division
SMS	Safety Management System
SPD	Safety Policy Division
TIMP	Transmission Integrity Management Program
TY	Test Year
WACOG	Weighted Average Cost of Gas

2026 SB 1371 Compliance Plan
Chapter 1: Leak Inventory Reduction

Part 1. Evaluate the Current Practice Addressed in this Chapter

This Chapter addresses the following Best Practice(s):

Best Practice 15: Distribution Leak Surveys
Utilities should conduct leak surveys of the gas distribution system every three (3) years, not to exceed 39 months, in areas where General Order (G.O.) 112-F, or its successors, requires surveying every five (5) years. In lieu of a system-wide three-year leak survey cycle, utilities may propose and justify in their Compliance Plan filings, subject to Commission approval, a risk-assessment based, more cost-effective methodology for conducting gas distribution pipeline leak surveys at a less frequent interval. However, utilities shall always meet the minimum requirements of G.O. 112-F, and its successors.
Best Practice 16: Special Leak Surveys
Utilities shall conduct special leak surveys, possibly at a more frequent interval than required by G.O. 112-F (or its successors) or BP 15, for specific areas of their transmission and distribution pipeline systems with known risks for natural gas leakage. Special leak surveys may focus on specific pipeline materials known to be susceptible to leaks or other known pipeline integrity risks, such as geological conditions. Special leak surveys shall be coordinated with transmission and distribution integrity management programs (TIMP/DIMP) and other utility safety programs. Utilities shall file in their Compliance Plan proposed special leak surveys for known risks and proposed methodologies for identifying additional special leak surveys based on risk assessments (including predictive and/or historical trends analysis). As surveys are conducted over time, utilities shall report as part of their Compliance Plans, details about leakage trends. Predictive analysis may be defined differently for differing companies based on company size and trends.
Best Practice 20a: Quantification
Utilities shall develop methodologies for improved quantification, geographic evaluation, and tracking of leaks from the gas systems. Utilities shall file in their Compliance Plan how they propose to address quantification. Utilities shall work together, with CPUC and ARB staff, to come to an agreement on a similar methodology to improve emissions quantification of leaks to assist the demonstration of actual emission reductions.
Best Practice 21: Find It, Fix It
Utilities shall repair leaks as soon as reasonably possible after discovery, but in no event, more than three (3) years after discovery. Utilities may make reasonable exceptions for leaks that are costly to repair relative to the estimated size of the leak.

Historic Project Achievements:

Since the SB 1371 program began, Chapter 1 has been a major driver of methane emission reductions. Chapter 1 project activities started in 2017 when a dedicated operations team was formed to focus on improving repair times and reducing leak inventory. The team identified permitting timeframes as one of the biggest obstacles to leak repair and engaged municipalities to propose a more streamlined process. Many cities cooperated, reducing the backlog of leaks awaiting permits. At the same time, specialized crews and equipment were deployed to repair nonhazardous leaks, allowing permitted leaks to be fixed instead of remaining in inventory. As a

result, repair times improved immediately, and leak inventory declined. Average repair times for nonhazardous leaks dropped from 21 months in 2020 to 7.8 months in 2024.
The program continued to gain momentum when procedures to prioritize older leaks and infrastructure replacements in areas susceptible to leaks were implemented. Regulatory requirements under G.O. 112-F, Section 143.2(b) mandate Code 2 Main & Service line leaks be repaired within 15 months, and Best Practice 21 requires utilities to repair leaks as soon as possible and no longer than three (3) years after discovery. Compliance Plan resolutions in 2018, 2020, and 2022 enabled SoCalGas to accelerate repair efforts so that by the end of 2024, most leaks were repaired in half the required compliance timeframe. This achievement significantly reduced emissions and minimized environmental impacts, while improving safety, reliability, and operational efficiency.

Resolution G-3605, issued on September 18, 2025, granted funding to meet G.O. 112-F compliance timeframes only, along with an overall 20% emissions reduction, even though an overall 40% reduction had almost been reached. Because Resolution G-3605 did not authorize funding for SoCalGas to maintain its current levels of leak repair and emission reductions, SoCalGas anticipates that nonhazardous leak repair times and emissions will increase.

Emission Reductions Achieved:

Historical Emission Reductions (MCF)

2018	2019	2020	2021	2022	2023	2024
N/A	N/A	373,415	574,182	652,514	611,516	428,814

To estimate the annual emission reductions, SoCalGas first identified the leak repairs that were accelerated under Chapter 1 each year, and SoCalGas estimated the volume of emissions that would have been released if the Code 2 Plastic, Code 2 Steel, and Code 3 Plastic leaks were repaired within their compliance timeframes. In addition, SoCalGas estimated the volume of emissions that would have been released if the Code 3 Steel leaks were repaired in 49 months. Forty-nine months was utilized for Code 3 Steel leaks because this was the average repair time for Code 3 Steel leaks from the 2015 baseline year. Next, after summing these volumes, SoCalGas subtracted the volume of emissions that were actually released by these leaks. The resulting difference is the estimated emission reductions.

Cost Effectiveness Evaluation of Historic Work:

Historical Standard Cost Effectiveness ($/MCF)

Projected in 2024 Compliance Plan	Actual Cost Effectiveness (2018-2024)
$195	$68

Part 2. Proposed New or Continuing Measures

Emissions from SoCalGas Main & Service line leaks accounted for approximately 43% of SoCalGas' total natural gas emissions during 2024. Because they account for such a large portion of SoCalGas' annual emissions, it is important for SoCalGas to continue its efforts to reduce Main & Service line emissions through accelerated nonhazardous leak repairs.
Moreover, SoCalGas emphasizes the importance of maintaining prior milestones approved by the CPUC in the 2018, 2020, and 2022 Compliance Plans. These prior milestones were achieved utilizing ratepayer funding. Without adequate funding to maintain these milestones, the concrete benefits customers received from these achievements will not be sustained, and significant resources will have been wasted.

For 2027, SoCalGas will utilize the authorized funds from Resolution G-3605 to continue meeting Code 2 and Code 3 leak repair regulatory timeframes. Repairing leaks identified as likely emitting at a higher volume by the Large Leak Prioritization program will also remain a priority to maximize emission reductions.

For 2028, SoCalGas plans to target accelerated repair times of 75 days or less in the TY 2028 GRC for leaks identified as likely emitting at a higher volume by the Large Leak Prioritization program.

Part 3. Abatement Estimates

Because of the funding authorized in Resolution G-3605, SoCalGas anticipates emissions from nonhazardous Distribution Main & Service line leaks in 2027 will increase relative to 2025 and 2026. A reversal to this near-term increase is possible in 2028 following the forthcoming TY 2028 GRC Decision.

To estimate the emission reductions, SoCalGas first estimated the number of potentially large leaks that it expects to detect and repair during 2027 and 2028. Next, SoCalGas estimated the volume of emissions that would be released if Code 2 Plastic, Code 2 Steel, and Code 3 Plastic leaks were repaired within their compliance timeframes, and SoCalGas also estimated the volume of emissions that would be released if Code 3 Steel leaks were repaired in 49 months. Forty-nine months was utilized for Code 3 Steel leaks because this was the average repair time for Code 3 Steel leaks from the 2015 baseline year. Finally, after summing these volumes, SoCalGas subtracted the estimated volume of emissions that would be released if the leaks were repaired within the accelerated timeframe of 75 days. The resulting difference is the estimated emission reductions.

Forecast of Emission Reductions (MCF)

2027	2028
555,560	602,585

Part 4. Cost Estimates

The 2027 costs are authorized by Resolution G-3605. The 2028 costs to accelerate repair times for leaks identified by the Large Leak Prioritization program to an average of 75 days will be requested in SoCalGas' TY 2028 GRC Application. Revenue requirement for the work planned during 2027 and 2028 is included in the table below.

Total Revenue Requirement over Expected Life of Investment
$61.9 million
Average Annual Revenue Requirement
$17.3 million

Part 5. Cost Effectiveness/Benefits

Leak Inventory Reduction has played a large role in the SoCalGas NGLAP, advancing the objectives of SB 1371 and CARB. From 2020 to 2025, SoCalGas achieved a significant improvement in leak repair times, reducing the average duration from 21 months to eight (8) months. This accelerated pace allowed SoCalGas to nearly reach a 40 percent reduction in methane emissions compared to the 2015 baseline well ahead of schedule. These improvements have delivered meaningful benefits, including lower emissions that support climate goals, enhanced safety by preventing leaks from becoming hazardous, improved system reliability, and reduced long-term maintenance costs.

However, Resolution G-3605 authorized funding only to meet compliance requirements and maintain a 20 percent reduction, which creates challenges to sustain the progress and benefits already realized.

Looking forward, SoCalGas anticipates continued benefits from implementing this Chapter. Timely repair of nonhazardous leaks is critical because such leaks can become hazardous over time. By addressing them more promptly, SoCalGas reduces the risk of escalation and enhances safety for customers and communities. Furthermore, accelerated repairs strengthen system reliability by minimizing the likelihood of service disruptions and operational risks. These efforts will help preserve environmental and safety improvements while supporting California's long-term climate and energy objectives. In addition, these efforts also help reduce long-term maintenance costs by eliminating the need for recurring operational monitoring by SoCalGas technicians. By preventing leaks from persisting, SoCalGas mitigates the risk that leaks become more costly to repair in the future.

Historical Achieved Cost Effectiveness Calculations (2018-2024) ($/MCF)

Standard Cost Effectiveness	With Cap and Invest Cost Benefits	With Cap and Invest, and Social Cost of Methane Cost Benefits
$68	$66	$40

Forecast of Cost Effectiveness Calculations (2027-2028) ($/MCF)

Standard Cost Effectiveness	With Cap and Invest Cost Benefits	With Cap and Invest, and Social Cost of Methane Cost Benefits
$24	$23	-$3

Part 6. Supplemental Information/Documentation

Not applicable.

2026 SB 1371 Compliance Plan
Chapter 2: Increased Leak Survey

Part 1. Evaluate the Current Practice Addressed in this Chapter

This Chapter addresses the following Best Practice(s):

Best Practice 15: Gas Distribution Leak Surveys
Utilities should conduct leak surveys of the gas distribution system every 3 years, not to exceed 39 months, in areas where General Order (G.O.) 112-F, or its successors, requires surveying every 5 years. In lieu of a system-wide three-year leak survey cycle, utilities may propose and justify in their Compliance Plan filings, subject to Commission approval, a risk-assessment based, more cost-effective methodology for conducting gas distribution pipeline leak surveys at a less frequent interval. However, utilities shall always meet the minimum requirements of G.O. 112-F, and its successors.
Best Practice 16: Special Leak Surveys
Utilities shall conduct special leak surveys, possibly at a more frequent interval than required by G.O. 112-F (or its successors) or BP 15, for specific areas of their transmission and distribution pipeline systems with known risks for natural gas leakage. Special leak surveys may focus on specific pipeline materials known to be susceptible to leaks or other known pipeline integrity risks, such as geological conditions. Special leak surveys shall be coordinated with transmission and distribution integrity management programs (TIMP/DIMP) and other utility safety programs. Utilities shall file in their Compliance Plan proposed special leak surveys for known risks and proposed methodologies for identifying additional special leak surveys based on risk assessments (including predictive and/or historical trends analysis). As surveys are conducted over time, utilities shall report as part of their Compliance Plans, details about leakage trends. Predictive analysis may be defined differently for differing companies based on company size and trends.

Historic Project Achievements:

SoCalGas began accelerated leak surveys in 2018, moving Vintage Plastic (Aldyl-A (PE) pipe installed before 1986) distribution line surveys to annual inspections, instead of 5-year cycles required in 49 CFR § 192.723. This activity was funded by DIMP. Unprotected Steel lines were accelerated to annual surveys in 2020 through the NGLAP. Implementation of the increased leak survey program required developing survey algorithms, reworking survey schedules, levelizing annual survey dates, updating Gas Standards, hiring and training survey technicians and leakage clerks, and purchasing vehicles and survey equipment. The entire program was implemented over a 7-year period, and levelization was completed at the end of 2025.

Program benefits included faster leak detection and repair relative to the prior 3- or 5-year survey cycles, which not only reduces methane emissions, but also limits the timeframe during which leaks can potentially increase in size and extent between survey cycles. The benefits of the program have contributed to increased safety, reliability, and reduced emissions. However, in accordance with the direction from the CPUC in Resolution G-3605, all previously accelerated leak survey cycles were decelerated in 2026 except for Vintage Plastic, which remains on a 1-year cycle.

Emission Reductions Achieved:

Historical Emission Reductions (MCF)

2018	2019	2020	2021	2022	2023	2024
162,794	179,658	442,119	310,655	262,745	318,351	327,424

Emission reductions from mains and services are calculated by estimating how much earlier leaks were identified by the accelerated surveys relative to the prior cycles and then multiplying the durations by the leaks' emission factors. For riser and MSA leaks, the reductions are estimated by first assuming that the number of leaks found through the accelerated surveys were proportional to the increases in survey mileage. Next, SoCalGas estimated how much earlier leaks were identified by the accelerated surveys relative to the prior cycles and multiplied this by the average emission factor and the estimated number of leaks to calculate the emission reductions.

Cost Effectiveness Evaluation of Historic Work:

Historical Standard Cost Effectiveness ($/MCF)

Projected in 2024 Compliance Plan	Actual Cost Effectiveness (2018-2024)
$71	$5

Part 2. Proposed New or Continuing Measure

Resolution G-3605 denied funding beyond 2025 for Ch. 2 Increased Leak Survey. As a result, SoCalGas returned its Unprotected Steel survey schedule to the prior 3-year cycles required by 49 CFR § 192.723 For this 2-year Compliance Plan period, SoCalGas will continue the 3-year survey cycles for Unprotected Steel, which does not require additional funding.

Part 3. Abatement Estimates

Forecast of Emission Reductions (MCF)*

2027	2028
146,308	146,308

*Note: Forecasted reductions are only for accelerated surveys on Vintage Plastic because SoCalGas' proposal to continue accelerated surveys on Unprotected Steel was not authorized in Resolution G-3605.

Forecasted emission reductions are calculated by averaging the emission reductions achieved through accelerated surveys on Vintage Plastic during 2023 and 2024.

Part 4. Cost Estimates

SoCalGas discontinued this program following Resolution G-3605. No funding is requested.

Part 5. Cost Effectiveness/Benefits

Cost effectiveness cannot be calculated because SoCalGas does not request funding for this Chapter during this Compliance Period.

Part 6. Supplemental Information/Documentation

Not applicable.

Part 1. Evaluate the Current Practice Addressed in this Chapter

This Chapter addresses the following Best Practice(s):

Best Practice 23: Minimize Emissions from Operations, Maintenance and Other Activities
Utilities shall minimize emissions from operations, maintenance, and other activities, such as new construction or replacement, in the gas distribution, transmission systems, and storage facilities. Utilities shall replace high-bleed pneumatic devices with technology that does not vent gas (i.e. no-bleed) or vents significantly less natural gas (i.e. low-bleed) devices. Utilities shall also reduce emissions from blowdowns, as much as operationally feasible.
Best Practice 3: Pressure Reduction Policy
Written company policy stating that pressure reduction to the lowest operationally feasible level in order to minimize methane emissions is required before non-emergency venting of high-pressure distribution (above 60 psig), transmission, underground storage infrastructure consistent with safe operations, and considering alternative potential sources of supply to reliably serve customers.
Best Practice 4: Project Scheduling Policy
Written company policy stating that any high-pressure distribution (above 60 psig), transmission or underground storage infrastructure project that requires evacuating methane will build time into the project schedule to minimize methane emissions to the atmosphere consistent with safe operations and considering alternative potential sources of supply to reliably serve customers. Projected schedules of high-pressure distribution (above 60 psig), transmission or underground storage infrastructure work, requiring methane evacuation, shall also be submitted to facilitate audits, with line venting schedule updates TBD.
Best Practice 5: Methane Evacuation Procedures
Written company procedures implementing the BPs approved for use to evacuate methane for non-emergency venting of high-pressure distribution (above 60 psig), transmission or underground storage infrastructure, how to use them consistent with safe operations, and considering alternative potential sources of supply to reliably serve customers.
Best Practice 6: Methane Evacuation Work Orders Policy
Written company policy that requires that for any high-pressure distribution (above 60 psig), transmission or underground storage infrastructure projects requiring evacuating methane, Work Planners shall clearly delineate, in procedural documents, such as work orders used in the field, the steps required to safely and efficiently reduce the pressure in the lines, prior to lines being vented, considering alternative potential sources of supply to reliably serve customers.
Best Practice 7: Bundling Work Policy
Written company policy requiring bundling of work, whenever practicable, to prevent multiple venting of the same piping consistent with safe operations, and considering alternative potential sources of supply to reliably serve customers. Company policy shall define situations where work bundling is not practicable.

Historic Project Achievements:

SoCalGas has documented use of cost-effective methods to reduce vented emissions during high-pressure construction projects, including performing pressure reduction using mobile compressors, transferring gas to lower pressure systems, and isolating smaller sections of pipe using gas capture tank trailers.

Operators of natural gas pipeline systems routinely reduce line pressure and discharge gas from pipeline sections to provide safe working conditions during maintenance and repair activities. In the 2022 and 2024 Compliance Plans, SoCalGas was approved to continue blowdown reduction efforts and to increase the resources to support blowdown gas capture activities. This included purchasing compressors and cross-compression equipment to reduce blowdown emissions, increasing field operations staff to support the incremental time required to reduce blowdown emissions, and creating a recordkeeping and compliance process to document that the requirements of the Best Practices are being met.

In addition to staffing efforts, in October 2021 SoCalGas published a Gas Standard 223.0155, *Planning Pipeline Blowdowns and Reporting* to outline the methods of blowdown reduction and provide resources to Planners and Project Managers when planning pipeline blowdowns and the associated blowdown reductions.

Emission Reductions Achieved:

The 2015 baseline for blowdown emissions reported for Blowdowns in Transmission Pipelines, Transmission M&R Stations, Distribution Mains & Services, Distribution M&R Stations totaled 204,987 MCF. Emissions from these categories in the calendar years 2018, 2019, 2020, 2021, and 2022 totaled 167,211 MCF, 134,787 MCF, 76,352 MCF, 13,335 MCF, and 21,478 MCF, respectively. This equates to an estimated reduction of 37,776 MCF for 2018, 70,200 MCF for 2019, 128,635 MCF for 2020, 191,652 MCF for 2021, and 183,509 MCF for 2022.

Beginning in 2023, SoCalGas was required to report the volumes of mitigated Transmission Pipeline blowdowns on the Annual Emissions Report, which are now being leveraged to estimate emission reductions for 2023 and 2024. The annual mitigated blowdown emissions reported in this Compliance Plan are from the following categories: Blowdowns in Transmission Pipelines, Transmission M&R Stations, and Distribution Mains & Services. Emissions mitigated from these three (3) categories over calendar years 2023 and 2024 totaled 641,463 MCF, 152,957 MCF, and 4,289 MCF respectively. This equates to an estimated reduction of 314,427 MCF for 2023, and 483,382 MCF for 2024.

Historical Emission Reductions (MCF)

2018	2019	2020	2021	2022	2023	2024
37,776	70,200	128,635	191,652	183,509	314,428	483,382

Cost Effectiveness Evaluation of Historic Work:

Historical Standard Cost Effectiveness ($/MCF)

Projected in 2024 Compliance Plan	Actual Cost Effectiveness (2018-2024)
$30	$25

Part 2. Proposed New or Continuing Measure

For 2027, SoCalGas will continue implementing high-pressure pipeline blowdown reduction measures across both Transmission and Distribution systems. These activities include bundling work on high-pressure lines when practical and safe, lowering line pressures before blowdowns, and using cross-compression and gas-capture services to minimize methane emissions.

SoCalGas will maintain and expand the blowdown reduction program by increasing the use of gas capture and recompression technologies, as well as installing fittings on valves to enable additional cross-compression capabilities. These enhancements support consistent methane mitigation and align with established internal procedures.

Projects often require blowdown equipment to remain deployed on-site for extended periods—sometimes several weeks—due to operational complexity and safety monitoring requirements. This reduces equipment availability for other scheduled work and forces the CNG Support Services team to reprioritize or delay projects. To address this constraint, SoCalGas plans to purchase additional gas capture tank trailers in 2027, supported by authorized funding, to increase availability and reduce scheduling bottlenecks.

In 2028, SoCalGas will continue its high-pressure blowdown reduction efforts and will request funding in the TY 2028 GRC Application to replace aging medium gas capture tank trailers. This equipment is reaching end of life, and replacing it is necessary to maintain the reliability and effectiveness of blowdown mitigation operations.

Part 3. Abatement Estimates

SoCalGas estimates reducing Blowdown emissions within the Transmission Pipeline, Transmission M&R Stations, Distribution Mains & Services, and Distribution M&R Station Categories will result in the following annual emission reductions.

Forecast of Emission Reductions (MCF)

2027	2028
398,905	398,905

Blowdown emissions are a function of activity level. From 2027 to 2028, the forecasted emission reductions were derived from the average historical emission reductions from emission years 2023 and 2024. SoCalGas will continue evaluating opportunities to expand blowdown reduction

capabilities, and emerging technologies may allow for further reductions in future Compliance Periods.

Part 4. Cost Estimates

The 2027 costs are authorized by Resolution G-3605. The 2028 funding will be requested in SoCalGas' TY 2028 GRC Application. Revenue requirement for the work planned during 2027 and 2028 is included in the table below.

Total Revenue Requirement over Expected Life of Investment
$94.5 million
Average Annual Revenue Requirement
$7.0 million

Part 5. Cost Effectiveness/Benefits

The blowdown reduction program is a cost-effective investment that minimizes methane emissions, contributing to California's climate goals and reducing environmental impact in the communities SoCalGas serves. In addition, the program directly supports system safety and affordability.

From a safety perspective, the use of cross compression and gas capture equipment allows SoCalGas to safely reduce pipeline pressure, which reduces the risk of uncontrolled releases and enhances worker and public safety. These practices are aligned with SoCalGas Gas Standard 223.0155, *Planning Pipeline Blowdowns and Reporting,* which promotes consistent application of mitigation procedures across all high-pressure operations.

Blowdown reduction activities have saved an average annual volume of 398,905 MCF during 2023 and 2024. By using the U.S. EPA greenhouse gas equivalencies calculator,[1] the annual savings are equivalent to greenhouse gas emissions from 50,100 gasoline power passenger vehicles driven for one (1) year or CO_2 emissions from 2,460,435 gallons of gasoline consumed. These improvements stem from advanced gas capture and recompression techniques that align with CPUC directives and internal Company standards and procedures. In the past, it was a standard industry procedure to vent the entire volume of gas into the atmosphere, whereas now SoCalGas is mitigating these vented emissions to reduce environmental impact.

The program supports affordability by injecting gas back into SoCalGas' pipeline infrastructure that would otherwise have been vented to the atmosphere. The annual cost savings of this program are expected to result in a cost benefit of $2,178,021 based on the WACOG of $5.46/MCF and estimated annual emission reductions of approximately 400,000 MCF through 2028. These reductions are achievable through continued investment in SoCalGas-owned equipment and operational enhancements that support sustained abatement across both

[1] Greenhouse Gas Equivalencies Calculator | US EPA

Transmission and Distribution systems. These efficiencies minimize cost for customers while reliably mitigating blowdown emissions.

The requested funding in the TY 2028 GRC Application is necessary to continue providing these benefits to customers and continue SoCalGas' internal capabilities. Investing in SoCalGas-owned equipment supports long-term cost control, promotes compliance with SB 1371's Best Practices, and enables sustained emission reductions. This program is essential to meeting regulatory expectations and providing safe, reliable, and affordable service for SoCalGas' customers. Reducing methane emissions improves regional air quality and accelerates progress toward the state's 2030 climate commitment and 2045 carbon neutrality goal.

Historical Achieved Cost Effectiveness Calculations (2018-2024) ($/MCF)

Standard Cost Effectiveness	With Cap and Invest Cost Benefits	With Cap and Invest, and Social Cost of Methane Cost Benefits
$25	$23	-$3

Forecast of Cost Effectiveness Calculations (2027-2028) ($/MCF)

Standard Cost Effectiveness	With Cap and Invest Cost Benefits	With Cap and Invest, and Social Cost of Methane Cost Benefits
$12	$10	-$16

Part 6. Supplemental Information/Documentation

Not applicable.

Part 1. Evaluate the Current Practice Addressed in this Chapter

This Chapter addresses the following Best Practice(s):

Best Practice 15: Gas Distribution Leak Surveys
Utilities should conduct leak surveys of the gas distribution system every 3 years, not to exceed 39 months, in areas where General Order (G.O.) 112-F, or its successors, requires surveying every 5 years. In lieu of a system-wide three-year leak survey cycle, utilities may propose and justify in their Compliance Plan filings, subject to Commission approval, a risk-assessment based, more cost-effective methodology for conducting gas distribution pipeline leak surveys at a less frequent interval. However, utilities shall always meet the minimum requirements of G.O. 112-F, and its successors.
Best Practice 16: Special Leak Surveys
Utilities shall conduct special leak surveys, possibly at a more frequent interval than required by G.O. 112-F (or its successors) or BP 15, for specific areas of their transmission and distribution pipeline systems with known risks for natural gas leakage. Special leak surveys may focus on specific pipeline materials known to be susceptible to leaks or other known pipeline integrity risks, such as geological conditions. Special leak surveys shall be coordinated with transmission and distribution integrity management programs (TIMP/DIMP) and other utility safety programs. Utilities shall file in their Compliance Plan proposed special leak surveys for known risks and proposed methodologies for identifying additional special leak surveys based on risk assessments (including predictive and/or historical trends analysis). As surveys are conducted over time, utilities shall report as part of their Compliance Plans, details about leakage trends. Predictive analysis may be defined differently for differing companies based on company size and trends.
Best Practice 20a: Quantification
Utilities shall develop methodologies for improved quantification and geographic evaluation and tracking of leaks from the gas systems. Utilities shall file in their Compliance Plan how they propose to address quantification. Utilities shall work together with CPUC and ARB staff to come to an agreement on a similar methodology to improve emissions quantification of leaks to assist the demonstration of actual emission reductions.
Best Practice 21: Find It, Fix It
Utilities shall repair leaks as soon as reasonably possible after discovery, but in no event, more than 3 years after discovery. Utilities may make reasonable exceptions for leaks that are costly to repair relative to the estimated size of the leak.

Historic Project Achievements:

SoCalGas has historically repaired leaks based on safety risk and has coded leaks as grades 1, 2, or 3 based on proximity to buildings, population density, and concentration of the leak. In the past, leak repair prioritization was solely based on safety and there was no correlation with emission volumes.

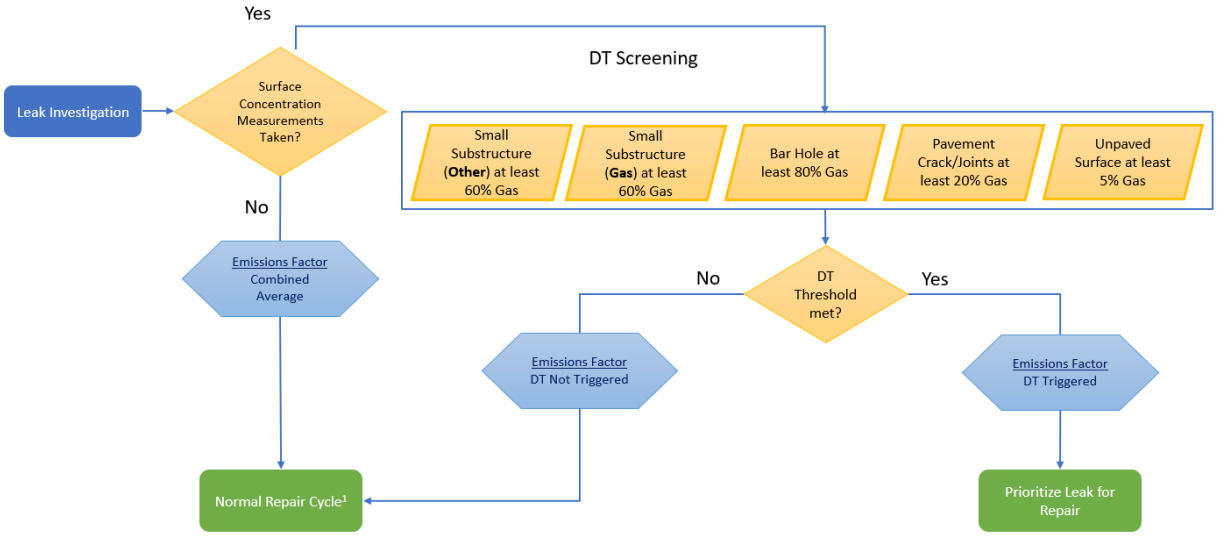
In the 2018 Compliance Plan, SoCalGas was approved to develop a method to differentiate leak locations with potentially larger leak rates and to conduct leak quantification resulting in repairs prioritized by leak rate.

In 2019, SoCalGas developed a decision tree methodology to identify and prioritize Code 2 and Code 3 leaks using surface expression measurements. The program was implemented in three (3) Gas Distribution Service Districts. Expedited leak repair was performed by the leakage personnel hired to support incremental leak repair for emission reduction, as outlined in Chapter 1.

During the Decision Tree Pilot Study, data showed that approximately 15% of leaks that met the Decision Tree threshold required measurement. Of the leaks that required measurement, approximately 13% were identified as "large leaks," or roughly 2% of all detected leaks. At the time of the pilot study, the threshold for a leak to be considered large is a flux rate greater than or equal to 10 CFH.

Based on the results of the 2021 Emission Factor Pilot Study Report, where emission flux rates were measured on 195 leaks, the average emission rate for large leaks is estimated at 8.29 CFH. Leaks that did not meet the decision tree threshold have an estimated emission rate of 2.10 CFH, and leaks where the decision tree process cannot be applied have an estimated emission rate of 4.52 CFH. SoCalGas will consider large leak cutoff points of 10 SCFH for all leaks that meet the decision tree and 6 CFH for all quantified leaks. SoCalGas strives to prioritize all large leaks for repair as soon as logistically possible. The updated decision tree is shown below:

Figure 1. The Leak Investigation Decision Tree



1The normal repair cycle is based on leak grade (e.g., Code 1 leaks are repaired immediately while Code 2 and Code 3 leaks are repaired within the required regulatory time frame)

Emission Reductions Achieved:

Historical Emission Reductions (MCF)

2018	2019	2020	2021	2022	2023	2024
N/A	N/A	N/A	23,962	85,790	47,481	30,890

Emission reductions achieved in 2021 by implementing this activity in the Gas Distribution Service Districts were 23,962 MCF. Due to the 2020 Compliance Plan being approved in late 2020 and the COVID-19 pandemic, the implementation of the Large Leak Prioritization (LLP) program was implemented late in 2021, resulting in emission reductions lower than the estimated 54,646 MCF in the 2020 Compliance Plan. In 2022, the emission reductions achieved by implementing the LLP program were 85,790 MCF. The program was fully implemented in 2022 because the obstacles referenced above delayed progress in the previous year. Emission reductions achieved are displayed in the table above.

The accelerated leak repairs are part of the Leak Inventory Reduction Program Chapter 1.

Cost Effectiveness Evaluation of Historic Work:

Historical cost effectiveness was not evaluated for the 2022 Compliance Period because SoCalGas did not request any additional funding for this program.

Part 2. Proposed New or Continuing Measure

SoCalGas plans to continue implementing the previously approved measures and does not propose new measures.

Part 3. Abatement Estimates

Estimated emission reductions are included in Chapter 1 of this Compliance Plan because accelerated leak repairs are part of the Leak Inventory Reduction Program.

Part 4. Cost Estimates

This measure has been incorporated into SoCalGas' routine operations as part of Chapter 1 maintenance activities and will be included in SoCalGas' TY 2028 GRC Application. No additional funding is being requested as part of this Compliance Plan.

Part 5. Cost Effectiveness/Benefits

The LLP initiative integrates leak-rate quantification to develop accurate emission factors for below ground leaks, enabling the identification of potentially high-emitting leaks through a decision-tree methodology. This approach prioritizes the repair of potentially high-emitting leaks, significantly reducing methane emissions, allowing leakage personnel to focus on the most impactful repairs improving operational efficiency. By directly reducing methane emissions, the LLP program advances climate objectives and enhances cost effectiveness because it integrates seamlessly into standard operational processes.

Part 6. Supplemental Information/Documentation

Not applicable.

Part 1. Evaluate the Current Practice Addressed in this Chapter

This Chapter addresses the following Best Practice(s):

Best Practice 24: Dig-Ins and Public Education Program
Expand existing public education program to alert the public and third-party excavation contractors to the Call Before You Dig – 811 program. In addition, utilities must provide procedures for excavation contractors to follow when excavating to prevent damaging or rupturing a gas line.
Best Practice 25: Dig-Ins and Company Standby Monitors
Utilities must provide company monitors to witness all excavations near gas transmission lines to ensure that contractors are following utility procedures to properly excavate and backfill around transmission lines.
Best Practice 26: Dig-Ins and Repeat Offenders
Utilities shall document procedures to address Repeat Offenders such as providing post-damage-safe excavation training and on-site spot visits. Utilities shall keep track and report multiple incidents, within a 5-year period, of dig-ins from the same party in their Annual Emissions Inventory Reports. These incidents and leaks shall be recorded as required in the recordkeeping best practice. In addition, the utility should report egregious offenders to appropriate enforcement agencies including the California Contractors State License Board. The Board has the authority to investigate and punish dishonest or negligent contractors. Punishment can include suspension of their contractor's license.

Historic Project Achievements:

In 2019, SoCalGas completed a pilot using four (4) Damage Prevention Analysts (DPA) to engage, educate, and enforce the use of Dig Alert, which involves calling 811 prior to excavation. These communications were triggered by a risk analysis algorithm that flags excavations that may be at a higher risk of damaging a pipeline. The pilot resulted in over 2,100 field contacts with excavators, over 200 educational safe excavation training sessions, and 300 damage investigations, thus promoting improved excavation safety. In 2021, SoCalGas continued to develop the damage prevention risk analysis algorithm to utilize the information that would be used to trigger a proactive intervention. Proactive interventions included activities that SoCalGas performed to address potential excavation sites that pose a high risk of damage, resulting in methane emissions. Furthermore, SoCalGas expanded the resources necessary to accommodate implementing the risk analysis algorithm process by hiring an additional six (6) DPAs.

Using the prioritized results from the risk analysis algorithm, SoCalGas personnel communicated with excavators to discuss the project and the importance of locating and protecting natural gas pipes within the project's delineated area. The method of communication included phone calls, text messages, emails, or job site visits prior to the date of excavation. This proactive excavation intervention enabled SoCalGas to minimize methane emissions from preventable damages.

In 2023, the Damage Prevention Algorithm & Proactive Intervention project for the 2022 Compliance Plan period was not approved because of its high standard cost effectiveness. Because

this project is deemed a crucial component in emissions prevention, it was incorporated into SoCalGas' routine O&M activities.

Emission Reductions Achieved:

No updates to the achieved emission reductions were made for this Compliance Period.

Cost Effectiveness Evaluation of Historic Work:

No updates on the cost effectiveness of historic work were made for this Compliance Period.

Part 2. Proposed New or Continuing Measure

SoCalGas does not propose new or continuing measures for this Chapter.

Part 3. Abatement Estimates

SoCalGas is not proposing new or continuing measures, and therefore, abatement estimates are not available.

Part 4. Cost Estimates

SoCalGas does not request funds for this Chapter in this Compliance Period.

Part 5. Cost Effectiveness/Benefits

Cost effectiveness cannot be calculated because SoCalGas does not request funding for this Chapter during this Compliance Period.

Part 6. Supplemental Information/Documentation

Not applicable.

2026 SB 1371 Compliance Plan
Chapter 6: Advanced Meter Analytics Algorithm

Part 1. Evaluate the Current Practice Addressed in this Chapter

This Chapter addresses the following Best Practice(s):

Best Practice 17: Enhanced Methane Detection
Utilities shall utilize enhanced methane detection practices (e.g. mobile methane detection and/or aerial leak detection) including gas speciation technologies.

Historic Project Achievements:

Prior to the implementation of Advanced Meter technology, SoCalGas relied on monthly meter readings to monitor gas usage. This approach often delayed the detection of high consumption or potential leaks, resulting in investigation timelines of up to 45 days.

SoCalGas adopted Advanced Meter technology, enabling the collection of hourly consumption data. This advancement significantly improved the ability to identify and respond to unusual usage patterns, reducing investigation times from 45 days to within 48 hours. The result has been enhanced safety and reduced methane emissions through faster response to leaks and excessive usage.

The Consumption Analytics Team's efforts have led to significant improvements, including the development of algorithms to detect gas consumption anomalies and evaluate millions of data points daily.

As data science capabilities matured, SoCalGas initiated a new project under the 2022 RD&D Compliance Plan to enhance its leak detection algorithms.

SoCalGas continued to explore the development of leak-identifying algorithms under its RD&D program; however, this initiative was paused due to funding constraints in 2025. The project did not exit the RD&D phase.

Emission Reductions Achieved:

Because the project was in RD&D development, there are no emission reductions to report.

Cost Effectiveness Evaluation of Historic Work:

The project was in RD&D development; and therefore, historical cost effectiveness cannot be quantified.

Part 2. New or Continuing Measure

SoCalGas does not propose new or continuing measures for this Chapter.

Part 3. Abatement Estimates

SoCalGas is not proposing new or continuing measures, and therefore, abatement estimates are not available.

Part 4. Cost Estimates

SoCalGas does not request funds for this Chapter in this Compliance Period.

Part 5. Cost Effectiveness/Benefits

Cost effectiveness cannot be calculated because SoCalGas does not request funding for this Chapter during this Compliance Period.

Part 6. Supplemental Information/Documentation

Not applicable.

Part 1. Evaluate the Current Practice Addressed in this Chapter

This Chapter addresses the following Best Practice(s):

Best Practice 9: Recordkeeping
Written Company Policy directing the gas business unit to maintain records of all SB 1371 Annual Emissions Inventory Report methane emissions and leaks, including the calculations, data and assumptions used to derive the volume of methane released. Records are to be maintained in accordance with G.O. 112-F, succeeding revisions, and 49 CFR 192. Currently, the record retention time in G.O. 112-F is at least 75 years for the transmission system. 49 CFR 192.1011 requires a record retention time of at least 10 years for the distribution system.

Historic Project Achievements:

Measure 1: Data Lake

In the past, developing the Annual Emissions Report required by the NGLAP involved querying various records, which were stored in varying formats, locations, databases, and with various record owners. This made report generation a time-consuming manual process. Additional challenges arose because the electronic systems were not designed for generating reports for emissions, but rather for billing, maintenance, or operational recordkeeping. To help improve efficiency, between 2020 and 2024, SoCalGas developed a Data Lake with automated interfaces from various source systems to help capture data elements required for emissions reporting. In addition, the Data Lake is designed to enable seamless modification of the emissions reporting templates as they evolve annually. The scope of the Data Lake expanded to capture the dynamic improvement of The Company's technical system upgrades and incorporate new emissions estimation methodologies and reporting requirements. The automated capture of source system data has reduced the effort needed by the critical experienced staff and made the data capture and reporting process more accurate and reliable.

Milestones Completed:

- Developed the Data Lake with automated interfaces from source systems.
- Modified the automated interfaces when source system technical upgrades occurred.
- Enhanced the automated interfaces when new data elements became available.
- Modified and enhanced the automated reports to align with updated emissions estimation methodologies and reporting requirements.

Measure 2: Engineering Data Analytics and Performance Optimization (EDAPO)

SoCalGas developed an initial phase of the EDAPO system to provide capabilities to support advanced analytics for Gas Operations, System Integrity, Distribution, Transmission, and Storage. The initial phase completed a proof-of-concept to forecast distribution system pressure excursions using data from 20 electronic pressure monitors. However, the EDAPO system is capable of capturing hourly pressure data for the entire distribution system, and the project also implemented a pilot phase to capture hourly pressure data from 2,000 electronic pressure monitors representing the entire distribution system. The pilot phase used machine learning to forecast 44% of the 25

distribution system pressure excursions that occurred over a four (4) year period. Although determining the balance between false positives and missed positives was challenging, each avoided pressure excursion reduced the risk of emissions and leak repair costs.

Milestones Completed:

- Completed a proof-of-concept to forecast distribution system pressure excursions using data from 20 electronic pressure monitors.
- Completed a pilot phase using machine learning to forecast distribution system pressure excursions using hourly pressure data from 2,000 electronic pressure monitors.

Measure 3: Asset Field Verification

Prior to the 2018 Compliance Plan, SoCalGas maintenance and inspection work management systems were designed for billing, maintenance, or operational recordkeeping purposes only. Moreover, because consistent naming conventions were not in place, records used varying types of nomenclature relevant to specific departments. Querying records from numerous departments in the Company and combining them to generate a single report was challenging and not readily available.

To improve asset data in the Company's source systems, SoCalGas performed Asset Verification projects at its transmission and storage facilities. The Asset Verification projects enhanced existing systems to include additional data elements required for the methane emissions calculations, which enabled field personnel to record required information into systems that were previously incapable of recording certain component data (e.g., manufacturer, date of installation, and photos). Having such data readily available enhanced the emissions estimations for the mandated Annual Emissions Report associated with these assets, and it has also allowed departments to refer to assets by unified naming methods and improve data governance.

Milestones Completed:

- Field verification of transmission assets completed Q2 of 2023.
- Field verification of storage assets completed Q4 of 2022.

Measure 4: Real-time Data Management for Methane Abatement/Monitoring Support for Other Gas Operational Units

Real-time data management and monitoring is an essential tool to analyze methane emissions and implement efforts to reduce methane emissions effectively across all operational areas. SoCalGas purchased a software license to modernize real-time data management and help improve existing and new methane emissions reduction projects. This tool's Operational & Maintenance cost was distributed to the end of 2025 to comply with regulatory accounting requirements. The tool enabled SoCalGas to improve maintenance/performance practices for its assets in transmission, distribution, and storage facilities. Moreover, the collected data is used to develop analytical capabilities to provide the ability to integrate with enterprise initiatives across the Company.

Milestones Completed:

- Obtained Enterprise license.
- Enabled additional analytics capabilities and gained the ability to integrate with other enterprise initiatives.
- Integrated existing infrastructure into the NGLAP solutions to enhance the Company's compliance with methane emission requirements.

Measure 5: Develop Mobile Field Forms

Prior to the 2022 Compliance Plan, the work management system used by Transmission did not include digitized forms or mobile capabilities. Enhancement efforts to address these deficiencies commenced in 2021 with software module updates to the work management system. The second part of the enhancement was to digitize forms and add mobile and spatial capabilities. Such improvements facilitated data recovery for maintaining assets, improved safety, and eliminated inconsistencies that the paper form may have caused. The digitized forms will also be used for reporting purposes, e.g., SB 1371. The project is anticipated to be completed in Q2 of 2026.

Milestones Completed:

- Modernized and enhanced mobile solutions to have offline capabilities by Q2 of 2022.
- Enabled spatial capabilities to the mobile solution by Q2 of 2022.

Measure 6: Historizing Emission Sensor Data (HESD)

The RD&D Pilot – Evaluation of Stationary Methane Detectors – did not identify monitors that could be deployed to cost-effectively scan for emissions. Therefore, the sensor data intended to be historized by the HESD project was unavailable during the 2023-2024 Compliance Plan period. However, the Emission Reductions Analytical Tools (ERAT) project showed promise for identifying new areas to target for emission reductions. As such, HESD funding from the 2022 Compliance Plan was reallocated to ERAT initiatives during the 2023-2024 Compliance Plan period.

Measure 7: Emission Reduction Analytical Tools (ERAT)

During 2023, a tool for forecasting annual emissions from Distribution Main & Service leak was completed within the ERAT portfolio. The tool allows the user to forecast emissions based on targeted repair durations and projected leak counts.

Milestones Completed:

- Produced a tool for forecasting emissions from Distribution Main & Service leaks.
- Initiated development of several tools for identifying areas to focus emission reduction efforts before the project was paused to support affordability.

Measure 8: Program Process Improvement

The NGLAP is focused on the technology, data, and best practices that guide SoCalGas in reducing emissions. The NGLAP is structured to support the elements of satisfying regulatory requirements, tracking financials and compliance requirements, responding to data requests, establishing dashboard(s) with metrics/project controls, and implementing the projects as outlined in the SB 1371 Compliance Plan for emission reductions.

The NGLAP developed and integrated tools to support these efforts that help enhance consistency and accuracy across the program. This allowed for improved tracking of key performance indicators and decision-making. This process improvement utilized tools and methodologies to effectively manage the program's workflow, including the below workstreams:

- Finance & Regulatory.
- Project Execution.
- Research & Development.
- Policy & Communication.

Milestones Completed:

- Developed and deployed a program dashboard that included descriptive program and financial analytics for all Compliance Plan chapters.
- Automated reports for blowdown reduction metrics.
- Configured and deployed data models for leak repair and overall program financials for optimized analytic query workloads.

Emission Reductions Achieved:

The measures in Chapter 7 were designed to comply with mandatory Best Practice 9 established by D.17-06-015. Due to the nature of Best Practice 9, emission reductions cannot be quantified.

Cost Effectiveness Evaluation of Historic Work:

Due to the nature of this work, emission reductions and cost effectiveness cannot be quantified.

Part 2. Proposed New or Continuing Measures

Measure 1: Data Lake

SoCalGas plans to maintain the previously approved project and does not propose any new measures. For 2027, SoCalGas will utilize the authorized funds from Resolution G-3605, and the 2028 funding will be requested in SoCalGas' TY 2028 GRC Application.

Part 3. Abatement Estimates

The measures in Chapter 7 were designed to comply with mandatory Best Practice 9 established by D.17-06-015. Due to the nature of Best Practice 9, emission reductions cannot be quantified.

Part 4. Cost Estimates

The 2027 costs are authorized by Resolution G-3605. The 2028 funding will be requested in SoCalGas' TY 2028 GRC Application.

Part 5. Cost Effectiveness/Benefits

The measures in this Chapter were developed to comply with mandatory Best Practice 9 from D.17-06-015. Best Practice 9 requires SoCalGas to maintain records, data, calculations, and assumptions associated with emissions reporting, and D.17-06-015 states that accurate reporting, including estimation methodologies and assumptions, is critical for regulatory audits to promote compliance. SoCalGas maintains compliance with these requirements by developing tools to gather, track, and improve program data.

In addition, these tools enhance affordability by reducing the amount of time that staff need to spend gathering data for annual reporting and general program management, and the tools bolster the resilience and reliability of SoCalGas' reporting and project management processes by automating part of the processes. The automation helps to confirm that data are prepared in a consistent and accurate manner.

Due to the nature of this work, emission reductions and cost effectiveness cannot be quantified.

Part 6. Supplemental Information/Documentation

Not applicable.

Part 1. Evaluate the Current Practice Addressed in this Chapter

This Chapter addresses the following Best Practice(s):

Best Practice 9: Recordkeeping
Written Company Policy directing the gas business unit to maintain records of all SB 1371 Annual Emissions Inventory Report methane emissions and leaks, including the calculations data and assumptions used to derive the volume of methane released. Records are to be maintained in accordance with G.O. 112 F and succeeding revisions, and 49 CFR 192. Currently, the record retention time in G.O. 112 F is at least 75 years for the transmission system. 49 CFR 192.1011 requires a record retention time of at least 10 years for the distribution system. Exact wording TBD by the company and approved by the CPUC, in consultation with CARB, as part of the Compliance Plan filing.
Best Practice 20b: Geographic Tracking
Utilities shall develop methodologies for improved geographic tracking and evaluation of leaks from the gas systems. Utilities shall work together, with CPUC and ARB staff, to come to agreement on a similar methodology to improve geographic evaluation and tracking of leaks to assist demonstrations of actual emissions reductions. Leak detection technology should be capable of transferring leak data to a central database to be able to provide data for leak maps. Geographic leak maps shall be publicly available with leaks displayed by zip code or census tract.

Historic Project Achievements:

SoCalGas has implemented two (2) major initiatives under Chapter 8. The first initiative is the implementation of the AVEVA platform, which enables SoCalGas Engineering to create data centric 3D models of high-pressure facilities. SoCalGas requested in prior Compliance Plans to back-model high-pressure facilities in AVEVA and enable scanning technology at facilities with storage and compressor components. Having these 3D models makes it easier to estimate emission volumes, tie leaks with the Company's supply management programs to order replacement parts when needed, identify lead times for replacement, and identify if leaks are on critical systems, which will influence plans for repair.

Since AVEVA's inception, SoCalGas has completed digitization of approximately 2,400 Piping & Instrumentation Diagrams (P&IDs) for its high-pressure facilities. These digital P&IDs allow the SoCalGas Engineering Department to locate engineering tags for pipeline, equipment, or instrumentation that is currently found in these facilities. Additionally, several facilities have generated 3D models. SoCalGas has completed the proposed objectives for the AVEVA project.

SoCalGas' second major initiative under Chapter 8 is the digitization of its ROWs. Currently, SoCalGas' ROWs are mapped in the GIS system by the Company's employees as part of the land acquisition process; however, historic ROWs acquired prior to the GIS posting process are not geospatially depicted in the GIS system. For these historic ROWs, when responding to leak survey or pipeline repair and replacement work requests, SoCalGas' Land & Right of Way team conducts site specific research by reviewing strip maps and leak survey maps (legacy Company maps) to first identify the ROW number, and subsequently, the ROW is reviewed and analyzed to determine

if it correlates to the specific location. To better support leak survey, repair, and replacement projects, historic ROWs were digitized and mapped into the GIS system, making ROW location information more accessible. The digitization of historic ROWs provides geospatial depiction of over 5,000 separate ROW agreements, covering over 2,800 miles of pipelines, which effectively reduces research time and overall costs by:

- Increasing productivity with quick identification of accurate ROW locations from the GIS system, eliminating the time-consuming step of legacy map review.
- Reducing response time to requests from gas operations on leak surveys, pipeline repair or replacement work, and other pipeline maintenance and inspection projects, providing downstream benefits of emission reductions and safety enhancement.
- Efficiently tracking ROWs in the GIS system with a geospatial depiction.

Emission Reductions Achieved:

The measures in Chapter 8 were designed to comply with mandatory Best Practices 9 and 20b established by D.17-06-015. Due to the nature of Best Practices 9 and 20b, emission reductions cannot be quantified.

Cost Effectiveness Evaluation of Historic Work:

Due to the nature of this work, emission reductions and cost effectiveness cannot be quantified.

Part 2. Proposed New or Continuing Measure

SoCalGas does not propose new or continuing measures for this Chapter.

Part 3. Abatement Estimates

The measures in Chapter 8 were designed to comply with mandatory Best Practices 9 and 20b established by D.17-06-015. Due to the nature of Best Practices 9 and 20b, emission reductions cannot be quantified.

Part 4. Cost Estimates

SoCalGas does not request funds for this Chapter in this Compliance Period.

Part 5. Cost Effectiveness/Benefits

The AVEVA project has delivered significant operational and cost-efficiency benefits for SoCalGas. By developing data-centric 3D models and approximately 2,400 P&IDs, the platform enables faster leak identification, more accurate scoping, and streamlined repair planning. Integration with supply chain processes accelerate procurement of replacement parts, reducing downtime and helping to avoid costly emergency repairs. These advancements shorten response times for gas operations teams, strengthen safety by design, and support compliance with SB 1371.

While direct emission reductions cannot be quantified, the project promotes affordability by reducing research time, improving productivity, and minimizing operational disruptions—ultimately lowering long-term costs without requiring ongoing maintenance expenditures.

Furthermore, the digitization of over 5,000 historic ROWs across over 2,800 miles of pipelines streamlines responses to leak surveys and repair work within private properties, helping reduce emissions by enabling faster identification and mitigation of potential gas leaks. By improving access to critical locations and shortening response times for gas operations teams, the system strengthens overall safety for customers and communities. This digital approach also promotes more efficient planning and execution of leak surveys and repairs, supporting affordability by reducing operational inefficiencies and saving time in ROW research. Additionally, tracking ROWs through the GIS system with accurate geospatial depiction enhances SoCalGas' ability to effectively manage its assets, reinforcing system reliability, and promoting consistent, dependable service delivery.

Due to the nature of this work, emission reductions and cost effectiveness cannot be quantified.

Part 6. Supplemental Information/Documentation

Not applicable.

Part 1. Evaluate the Current Practice Addressed in this Chapter

This Chapter addresses the following Best Practice(s):

Best Practice 13: Performance Focused Training Program
Create and implement training programs to instruct workers, including contractors, on how to perform the BPs chosen, efficiently and safely. Training programs to be designed by the Company and approved by the CPUC, in consultation with CARB, as part of the Compliance Plan filing. If integration of training and program development is required with the company's GRC and/or CBC processes, then the company shall file a draft training program and plan with a process to update the program once finalized into its Compliance Plan.

Historic Project Achievements:

Gas Operations Training has been driven by a strong emphasis on PHMSA's safety regulations. The NGLAP required additional emphasis on the control of emissions. As changes in processes, procedures, equipment, and technology emerged due to implementation of Best Practices, existing training needed to be modified, and new training modules developed. This training supports the new processes and policies, and it trains employees with an increased focus on the environmental impact of methane emissions.

SoCalGas continued to implement its competency-based training program, which encompasses training designed for all new methane mitigation policy and procedural changes. SoCalGas continues to transition from a traditional classroom-only training approach towards a hybrid in-person and competency-based web-based video training module system, which has enhanced the ability to incorporate new policies and increase learning at a faster pace.

Several SoCalGas trainings have been updated from scheduled classes that start and end on specific dates, to an on-demand training paradigm. The individualized instruction environment has allowed students to begin training anytime for specific courses, and those courses conclude when the student has demonstrated competence. The instructor's role has changed from the primary dispenser of instructional content to a facilitator of learning by coaching, mentoring, and observing hands-on activities performed by students. This new training format is enhancing the competency development for the previously implemented courses.

These training modules help introduce new policies and procedures, enhance technician onboarding, reduce field errors, and strengthen safety, supporting SoCalGas' goal to reduce methane emissions.

Emission Reductions Achieved:

The measures in Chapter 9 were designed to comply with mandatory Best Practice 13 established by D.17-06-015. Due to the nature of Best Practice 13, emission reductions cannot be quantified.

Cost Effectiveness Evaluation of Historic Work:

Due to the nature of this work, emission reductions and cost effectiveness cannot be quantified.

Part 2. Proposed New or Continuing Measure

SoCalGas does not propose new or continuing measures for this Chapter.

Part 3. Abatement Estimates

The measures in Chapter 9 were designed to comply with mandatory Best Practice 13 established by D.17-06-015. Due to the nature of Best Practice 13, emission reductions cannot be quantified.

Part 4. Cost Estimates

SoCalGas does not request funding for this initiative in this Compliance Period.

Part 5. Cost Effectiveness/Benefits

The Competency Based Training Development of eLearning modules provides refresher content that helps prevent errors leading to avoidable emissions, reinforcing reliability and safety. By reducing manual entry for knowledge base testing and facilitating instructor-led coaching and mentoring, these modules create a safer and more efficient learning environment. They enhance competency development through a repeatable, documented platform that supports scalability across teams and locations, while enabling rapid integration of new policies and procedures, including those related to methane mitigation and environmental compliance. Additionally, eLearning enhances efficiency in filling vacancies with trained, competent technicians and strengthens safety fundamentals and emission reduction practices through diverse learning methods. Courses offer flexibility with pre-learning options, remote distance learning, and onsite hands-on training, reducing costs and time by eliminating the need for long-distance travel or extended stays.

Due to the nature of this work, emission reductions and cost effectiveness cannot be quantified.

Part 6. Supplemental Information/Documentation

Not applicable.

2026 SB 1371 Compliance Plan
Chapter 10: Training Facility Enhancements

Part 1. Evaluate the Current Practice Addressed in this Chapter

This Chapter addresses the following Best Practice(s):

Best Practice 13: Performance Focused Training Program
Create and implement training programs to instruct workers, including contractors, on how to perform the BP's chosen, efficiently, and safely. Training programs to be designed by the Company and approved by the CPUC, in consultation with CARB, as part of the Compliance Plan filing. If integration of training and program development is required with the company's GRC and/or CBC process, then the Company shall file a draft training program and plan with a process to update the program once finalized into its Compliance Plan.

Historical Project Achievements:

SoCalGas has a robust classroom training program provided at a centralized training facility in Pico Rivera. The training facility is equipped with an area known as Situation City, where trainees can experience hands-on real-world scenarios, such as blowing high-pressure lines with an ignition source, within a controlled and safe environment. Training programs are focused primarily on PHMSA's and G.O. 112-F's safety regulations. SoCalGas' SMS is a structured framework with established roles and responsibilities used to manage safety comprehensively, systematically, and in an integrated manner. Per SoCalGas' SMS, "Competence, Awareness, and Training" is one of the Company's ten (10) core Safety Values. All current training programs are focused around incorporating safety in all procedures as a primary goal. As part of its formal training program and Operator Qualification requirements, SoCalGas incorporates hands-on training conducted at Situation City.

Situation City consists of 22 simulated "homes" set up on simulated residential streets with gas meters, mains, and services in the streets. This facility can train distribution, transmission, storage and customer service field students using a real, working gas distribution system in a safe, controlled environment. After completion of the previous Situation City improvements to the leak detection course, SoCalGas can now simulate gas leaks at approximately 1 CFH for training purposes. These new simulations allow training to detect much smaller leaks in an effort to further reduce emissions and increase safety.

Emission Reductions Achieved:

The measures in Chapter 10 were designed to comply with mandatory Best Practice 13 established by D.17-06-015. Due to the nature of Best Practice 13, emission reductions cannot be quantified.

Cost Effectiveness Evaluation of Historic Work:

Due to the nature of this work, emission reductions and cost effectiveness cannot be quantified.

Part 2. Proposed New or Continuing Measures

SoCalGas does not propose new or continuing measures for this Chapter.

Part 3. Abatement Estimates

The measures in Chapter 10 were designed to comply with mandatory Best Practice 13 established by D.17-06-015. Due to the nature of Best Practice 13, emission reductions cannot be quantified.

Part 4. Cost Estimates

SoCalGas does not request funding for this initiative in this Compliance Period.

Part 5. Cost Effectiveness/Benefits

SoCalGas Situation City training facility provides a unique opportunity to advance SoCalGas' goals for emission reductions, safety, reliability, and affordability by delivering realistic, hands-on training in a controlled environment. Featuring simulated homes connected to a functioning gas distribution system, among other training activities, the facility replicates real-world conditions while maintaining safety standards.

Recent enhancements to the leak detection course enable simulation of small gas leaks, allowing trainees to practice identifying minor leaks that contribute to methane emissions. Training scenarios include leaking services with indications at and away from foundations, leaks on concrete cracks, unpaved surfaces (grass), sewer manholes, gas curb meter boxes (CMB), gas valve casings, water meter boxes, electrical boxes (high voltage/street lighting), leaks on risers behind gates, and on meter set assemblies. Furthermore, an integrated electrical panel allows instructors to adjust scenario complexity to match trainee skill levels. These realistic scenarios provide comprehensive exposure to field conditions, enabling trainees to gain practical experience that supports emission reductions, enhances safety, and prevents costly service disruptions.

Due to the nature of this work, emission reductions and cost effectiveness cannot be quantified.

Part 6. Supplemental Information/Documentation

Not applicable.

Part 1. Evaluate the Current Practice Addressed in this Chapter

This Chapter addresses the following Best Practice(s):

Best Practice 23: Minimize Emissions from Operations, Maintenance and Other Activities
Utilities shall minimize emissions from operations, maintenance and other activities, such as new construction or replacement, in the gas distribution and transmission systems and storage facilities. Utilities shall replace high-bleed pneumatic devices with technology that does not vent gas (i.e. no-bleed) or vents significantly less natural gas (i.e. low-bleed) devices. Utilities shall also reduce emissions from blowdowns, as much as operationally feasible.

Historic Project Achievements:

In the 2022 Compliance Plan, SoCalGas was not approved to implement emission reductions efforts at Storage Facilities. From 2018 to 2021, SoCalGas implemented over 17 projects that reduced emissions from storage facilities. These projects included the modification/removal of orifice meters, replacement of chemical injection pumps with ventless types, reduction of wellhead venting, gas blowdown studies, and the replacement of gas-powered actuation with compressed air.

SoCalGas published Gas Standard 223.0155, *Planning Pipeline Blowdowns and Reporting,* to outline the methods of blowdown reduction and provide resources to Planners and Project Managers when planning pipeline blowdowns and the associated blowdown reductions.

Emission Reductions Achieved:

The Underground Storage Blowdown Emissions reported as the baseline in 2015 were 10,812 MCF. Underground Storage Blowdown Emissions reported in the calendar year 2018 were 3,933 MCF, with an estimated reduction of 6,879 MCF. Underground Storage Emissions reported in the calendar year 2019 were 3,697 MCF, with an estimated reduction of 7,115 MCF. Underground Storage Emissions reported in the calendar year 2020 were 1,783 MCF, with an estimated reduction of 9,029 MCF. Underground Storage Emissions reported in the calendar year 2021 were 2,154 MCF, with an estimated reduction of 8,658 MCF. Underground Storage Emissions reported in the calendar year 2022 were 1,947 MCF, with an estimated reduction of 8,865 MCF. Underground Storage Emissions reported in the calendar year 2023 were 2,165 MCF, with an estimated reduction of 8,647 MCF. Underground Storage Emissions reported in the calendar year 2024 were 1,371 MCF, with an estimated reduction of 9,441 MCF. The following table summarizes these reductions.

Historical Emission Reductions (MCF)

2018	2019	2020	2021	2022	2023	2024
6,879	7,115	9,029	8,658	8,865	8,647	9,441

The historical emission reductions represent the annual emission reductions relative to the 2015 baseline year. These reductions were achieved by the activities in Chapter 11 as well as other enhancements and external factors.

Cost Effectiveness Evaluation of Historic Work:

Historical cost effectiveness was not evaluated because there was no authorized funding for the 2022 Compliance Period.

Part 2. Proposed New or Continuing Measure

SoCalGas does not propose new or continuing measures for this Chapter.

Part 3. Abatement Estimates

SoCalGas is not proposing new or continuing measures, and therefore, abatement estimates are not available.

Part 4. Cost Estimates

SoCalGas does not request funds for this Chapter in this Compliance Period.

Part 5. Cost Effectiveness/Benefits

Cost effectiveness cannot be calculated because SoCalGas does not request funding for this measure during this Compliance Period.

Part 6. Supplemental Information/Documentation

Not applicable.

2026 SB 1371 Compliance Plan
Chapter 12: Stationary Methane Detectors

Part 1. Evaluate the Current Practice Addressed in this Chapter

This Chapter addresses the following Best Practice(s):

Best Practice 18: Stationary Methane Detectors
Utilities shall utilize Stationary Methane Detectors for early detection of leaks. Locations include: Compressor Stations, Terminals, Gas Storage Facilities, City Gates, and Metering & Regulating (M&R) Stations (M&R above ground and pressures above 300 psig only). Methane detector technology should be capable of transferring leak data to a central database, if appropriate for location.

Historical Project Achievements:

SoCalGas conducted a phased study of stationary methane detection technologies at Company facilities from 2018-2022. This activity explored a range of alternative monitoring technologies to assess their accuracy, propensity to generate false alarms, and cost effectiveness when deployed at M&R stations. SoCalGas included sensors from multiple tunable diode vendors in the evaluation to assess their relative performance in comparison to each other and to the results of on-site leak surveys. The results of the evaluation determined that implementation of stationary methane detector technology at above ground Distribution M&R stations was not cost-effective for early leak detection compared to performing additional leak surveys.

SoCalGas also performed a research study on Stationary Methane Detectors intending to install methane sensors for early leak detection at 50 Transmission facilities. However, the research study has shown that the sensors are not cost-effective.

Emission Reductions Achieved:

Historical Emission Reductions (MCF)

2018	2019	2020	2021	2022	2023	2024
279	279	279	N/A	N/A	N/A	N/A

Cost Effectiveness Evaluation of Historic Work:

SoCalGas' evaluations determined that implementation of stationary methane detector technology at above ground Distribution M&R stations and Transmission facilities was not cost effective.

Part 2. Proposed New or Continuing Measure

SoCalGas does not propose new or continuing measures for this Chapter.

Part 3. Abatement Estimates

SoCalGas is not proposing new or continuing measures, and therefore, abatement estimates are not available.

Part 4. Cost Estimates

SoCalGas does not request funds for this Chapter in this Compliance Period.

Part 5. Cost Effectiveness/Benefits

Cost effectiveness cannot be calculated because SoCalGas does not request funding for this Chapter during this Compliance Period.

Part 6. Supplemental Information/Documentation

Not applicable.

Part 1. Evaluate the Current Practice Addressed in this Chapter

This Chapter addresses the following Best Practice(s):

Best Practice 20b: Geographic Tracking
Utilities shall develop methodologies for improved geographic tracking and evaluation of leaks from the gas systems. Utilities shall work together, with CPUC and ARB staff, to come to agreement on a similar methodology to improve geographic evaluation and tracking of leaks to assist demonstrations of actual emission reductions. Leak detection technology should be capable of transferring leak data to a central database in order to provide data for leak maps. Geographic leak maps shall be publicly available with leaks displayed by zip code or census tract.

Historical Project Achievements:

Using digital and mobile technology, SoCalGas modernized leak survey operations with the goals of reducing costs, increasing processing efficiency, and enhancing visibility of this critical safety activity. Leak survey instrumentation was used to track leaks and generate data, which was then electronically uploaded into GIS. Breadcrumb (GIS Location) data was collected for developing the ELS mobile application. The ELS project replaced the existing distribution routine leak survey process involving paper maps with:

- GIS web-based portal application that is used to electronically prepare, review, and store leak survey map completions.
- Mobile application on a tablet device that is used by operator qualified technicians to report leak survey completions and to document conditions found that require follow-up, such as leaks.
- Highly integrated solution with SoCalGas software that leverages existing enterprise systems and business workflows to auto-create and generate follow-up work orders.
- Dashboard for managing near real-time work order status and completion.

The ELS project tested the release of the mobile application, resulting in its training and deployment. As implementation continued, the gas system benefitted from improved geographic evaluation and tracking of leaks, ACOR, and other AOC locational data using smart forms. Furthermore, point-and-click technology using GIS coordinates allows information, such as addresses, to be auto-populated.

Emission Reductions Achieved:

The measures in Chapter 13 were designed to comply with mandatory Best Practice 20b established by D.17-06-015. Due to the nature of Best Practice 20b, emission reductions cannot be quantified.

Cost Effectiveness Evaluation of Historic Work:

Due to the nature of this work, emission reductions and cost effectiveness cannot be quantified.

Part 2. Proposed New or Continuing Measure

SoCalGas plans to maintain the existing ELS software and does not propose new measures for this Chapter.

Part 3. Abatement Estimates

The measures in Chapter 13 were designed to comply with mandatory Best Practice 20b established by D.17-06-015. Due to the nature of Best Practice 20b, emission reductions cannot be quantified.

Part 4. Cost Estimates

This measure has been incorporated into SoCalGas' routine O&M activities and will be included in SoCalGas' TY 2028 GRC Application.

Part 5. Cost Effectiveness/Benefits

The implementation of the ELS project delivers significant operational and compliance benefits aligned with organizational goals for emission reduction, safety, reliability, and affordability.

By eliminating reliance on paper-based leak survey maps, including plotting, printing, reviewing, and mailing maps, the initiative strengthens operational controls by reducing cost exposure, decreasing resource consumption, and lowering associated environmental impacts. This transition to digital workflows also mitigates risks related to document loss and process inefficiencies.

Integration with Company software improves geographic accuracy and tracking of leaks and other AOCs, supporting timely follow-up and reducing the risk of human error through auto-populated GIS coordinates.

By automating the leak survey work assignment process within Distribution, the system enhances efficiency and flexibility in cross-district assignments and routing, improving workforce utilization and reducing dependency on manual processes. Automation enhances safety and reliability by providing near real-time access to leak survey data, enabling rapid response during critical events such as system overpressure, seismic activity, fires, and floods supporting faster field response.

Additionally, field supervisors, leakage clerks, and ARSA personnel now receive near real-time updates via the portal app, strengthening oversight and decision-making, which was previously inaccessible on-the-go.

The project also provides valuable data inputs for advanced analytics, supporting future initiatives aimed at cost reduction, enhanced safety, and improved operational efficiency in alignment with regulatory and environmental standards.

Due to the nature of this work, emission reductions and cost effectiveness cannot be quantified.

Part 6. Supplemental Information/Documentation

Not applicable.

Part 1. Evaluate the Current Practice Addressed in this Chapter

This Chapter addresses the following Best Practice(s):

Best Practice 16: Special Leak Surveys
Utilities shall conduct special leak surveys, possibly at a more frequent interval than required by G.O. 112-F (or its successors) or BP 15, for specific areas of their transmission and distribution pipeline systems with known risks for natural gas leakage. Special leak surveys may focus on specific pipeline materials known to be susceptible to leaks or other known pipeline integrity risks, such as geological conditions. Special leak surveys shall be coordinated with transmission and distribution integrity management programs (TIMP/DIMP) and other utility safety programs. Utilities shall file in their Compliance Plan proposed special leak surveys for known risks and proposed methodologies for identifying additional special leak surveys based on risk assessments (including predictive and/or historical trends analysis). As surveys are conducted over time, utilities shall report as part of their Compliance Plans, details about leakage trends. Predictive analysis may be defined differently for differing companies based on company size and trends.
Best Practice 17: Enhanced Methane Detection
Utilities shall utilize enhanced methane detection practices (e.g. mobile methane detection and/or aerial leak detection) including gas speciation technologies.
Best Practice 20a: Quantification
Utilities shall develop methodologies for improved quantification and geographic evaluation and tracking of leaks from the gas systems. Utilities shall file in their Compliance Plan how they propose to address quantification. Utilities shall work together, with CPUC and ARB staff, to come to agreement on a similar methodology to improve emissions quantification of leaks to assist in the demonstration of actual emissions reductions.

Historic Project Achievements:

Between 2019 and 2020, SoCalGas piloted aerial LiDAR technology to detect and measure methane emissions across 154 square miles of its territory. The pilot demonstrated that the technology is successful in detecting emissions from SoCalGas' system and customer systems.

In 2021, the implementation phase of the project launched on a small scale. By 2024, it was operating at full capacity, scanning nearly 100% of Vintage Plastic (Aldyl-A (PE) pipe installed before 1986) and Unprotected Steel Distribution Mains & Services and the proximal customer parcels that were close enough to be scanned with the LiDAR technology while the helicopter was scanning SoCalGas assets. The results of the years are shown below.

2021-2024 Leak Detection Results

		2021*	2022	2023*	2024
Scanned (Sq miles)		569	2,496	1,464	2,751
Mains & Services Scanned (miles)		18,281	65,599	44,427	81,002
Customer Meters Scanned		933,799	2,994,752	1,911,265	3,564,805
Leak count	System	222	808	482	938
	Non-system	308	1,143	1,096	1,952
Customer Incomplete Combustion count		356	975	899	1,565

*In 2021, the program was initially scaling up. In 2023, the 2022 Compliance Plan decision was delayed which reduced the duration available to implement the full scope of 2023 leading to reduced flights and therefore reduced detections. The reduced funding expenditure in 2023 was made up for in 2024.

From a methane reduction perspective, the key takeaways are:

- The program has a successful track record of detecting and eliminating leaks.
    - As shown in the table above, the program has a proven track record of detecting leaks from SoCalGas' Distribution Mains & Services. By identifying leaks earlier than the scheduled walking surveys, SoCalGas successfully eliminated significant methane emissions (see table below for quantified abatement figures).
- As outlined in the 2024 Compliance Plan, the program is a key contributor to the success of the SB 1371 methane reduction initiative—accounting for 25% of total forecasted emission reductions when non-system emissions are excluded.
- The program has consistently detected emissions from customer equipment. By addressing these emissions, it has (i) reduced methane emissions, (ii) improved the safety of customer equipment, and (iii) lowered customer costs.
- Initial research completed under RD&D demonstrated measurable reductions in methane emissions resulting from the resolution of incomplete combustion in customer appliances. A limited number of customer sites were visited, and using the Carbon Balance equation, based on the Law of Conservation of Mass, SoCalGas estimated that each customer reduced an average of 341 MCF of emissions per year after optimizing previously unoptimized equipment. The potential for further emission reductions remains significant. The addressable opportunity is estimated at 420,000 MCF/year, based on the average number of incomplete combustion cases observed in 2023 and 2024, multiplied by the 341 MCF/year reduction per case. While not all opportunities will be pursued, the scale of the potential reduction highlights a promising path for continued emission mitigation.
- The program has consistently reduced the cost per MCF of emissions abated year-over-year through several initiatives, including: (i) enhancing methane sensor performance, (ii) negotiating volume-based cost reductions with key vendors, and (iii) streamlining internal processes to reduce staffing costs.

De-risking Vintage Aldyl-A pipe:

SoCalGas currently operates Vintage Aldyl-A Plastic pipes, sometimes referred to as NSOTA plastic pipes. In a June 11, 2014 report titled Hazard Analysis and Mitigation Report, the CPUC's staff outlined the risks associated with Vintage Aldyl-A pipes. The report states that "Vintage Aldyl-A pipes were identified as a major potential hazard affecting gas pipeline safety."[2] The Aerial Monitoring program specifically targets the Vintage Aldyl-A pipes and Unprotected Steel pipes among its distribution assets. Therefore, the Aerial Monitoring program helps mitigate a hazard, which the CPUC staff report classified as a "major potential hazard." As demonstrated, the Aerial Monitoring program provides benefits beyond methane reduction and customer safety—it also offers significant safety enhancements for SoCalGas' distribution assets.

Improvement in Cost Effectiveness:

In 2025, Resolution G-3605 denied funding requested for Chapter 2, which improved the economics of the proposed Chapter 14 program.

- CPUC SPD, in its recommendation dated May 15, 2025,[3] stated, "SPD approves the Aerial Monitoring Program as proposed in SoCalGas' 2024 Plan." Within the same recommendation, SPD expressly denied approval of Chapter 2, titled "Increased Leak Survey." Chapter 2 would have required surveys of Unprotected Steel pipelines at one (1) year intervals, rather than the three (3) year interval required by 49 CFR § 192.723.
- At the time the Aerial Monitoring cost effectiveness analysis was presented in the 2024 Compliance Plan, the underlying assumptions reflected the survey cycle proposed in Chapter 2 of the 2024 Compliance Plan. Specifically, if the Aerial Monitoring Program detected a leak on an Unprotected Steel pipeline, the analysis assumed that, under a worst-case scenario, the leak would have been identified through Chapter 2 within one (1) year—because Chapter 2 proposed annual surveys of Unprotected Steel pipelines.
- However, because Chapter 2 funding was denied, walking surveys of Unprotected Steel pipelines were returned to a 3-year cycle rather than a 1-year cycle. Consequently, leaks detected by Aerial Monitoring on Unprotected Steel pipelines could remain undetected for as long as two (2) to three (3) years. This materially increases the emissions that Aerial Monitoring prevents. Emissions associated with other asset classes, such as Protected Steel and plastic pipelines, remain unaffected.

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[2] California Public Utilities Commission, *Hazard Analysis and Mitigation Report on Aldyl-A Polyethylene Gas Pipelines in California*, prepared by Steven Haine, P.E., with technical assistance from Gene Palermo, Palo Alto Plastics Pipe Consulting, June 11, 2014, at 29 (identifying vintage Aldyl-A pipes as a "major potential hazard affecting gas pipeline safety").

[3] CPUC Safety Policy Division, *Evaluation of SoCalGas 2024 NGLA Compliance Plan* (May 15, 2025).

- Accordingly, the emission reductions attributable to Aerial Monitoring increase significantly. In Resolution G-3605,[4] the CPUC noted, "The consideration of emission reductions from infrastructure that is not part of SoCalGas' transmission or distribution system is therefore beyond the scope of the CPUC's legislative mandate. When only such emissions from SoCalGas infrastructure are considered, the cost effectiveness of Aerial Monitoring is $61/MCF, which exceeds the cost effectiveness threshold by a considerable margin." However, the $61/MCF cost effectiveness calculations did not account for the concurrent denial of Chapter 2 funding.
- Revised emissions calculations, reflecting the denial of funding for Chapter 2, are presented below. As demonstrated, the Aerial Monitoring program, Chapter 14, meets cost effectiveness criteria under the methodology applied by the CPUC in Resolution G-3605.

Completed Milestones:

- IT System enhancements completed (2022).
- Upgraded sensor from 1st generation to 2nd generation (2022).
- Negotiated lower rates from key vendors (2024).
- Set up a new customer follow up system to confirm customers were closing leaks (2024).

Emission Reductions Achieved:

Historical Emission Reductions (MCF)

Source	2018	2019	2020	2021	2022	2023	2024
SoCalGas	N/A	814	5,191	22,626	141,084	110,305	267,804
Confirmed Customer Leaks Abated[5]	N/A	N/A	N/A	45,196	154,046	166,570	273,651

Cost Effectiveness Evaluation of Historic Work:

System emissions only calculation:

Historical Standard Cost Effectiveness ($/MCF)

Projected in 2024 Compliance Plan	Actual Cost Effectiveness (2018-2024)
$61	$61

[4] Resolution G-3605, *Approves and Denies in Part Southern California Gas Company's 2024 Compliance Plan, Forecasts, and Caps for its Natural Gas Leak Abatement Program*, at p. 16 (Cal. Pub. Utils. Comm'n July 24, 2025).

[5] Customer side emission estimates use the most recent customer leak rates presented in "Incorporation of AMM/GML Detections into SoCalGas Above and Below Ground Leak-Based Emission Factors" white paper.

System+ Confirmed Non-system emission calculation:

Historical Standard Cost Effectiveness ($/MCF)

Projected in 2024 Compliance Plan	Actual Cost Effectiveness (2018-2024)
$24	$25

Part 2. Proposed New or Continuing Measure

This proposal is continuing under the Aviation Services emissions detection program.
Given the improvement in cost effectiveness discussed in Part 2 above, SoCalGas proposes to continue this program at the same objective and funding scope as approved in the 2021-2024 program. As discussed in detail in Part 1 above, there are benefits beyond methane reduction, such as enhanced customer safety, improved affordability, and increased gas distribution system safety.

Part 3. Abatement Estimates

System and non-system leaks

The forecasted reduction in emissions is provided below. This estimate is derived from expectations to find approximately 986 system leaks and 1,505 non-system leaks each year.

Forecast of SoCalGas Emission Reductions (MCF)

Source	2027*	2028
System Leaks	0	275,165
Non-System Leaks Abated	0	273,651

*Aerial Monitoring not funded in 2027

The project proposes to annually cover nearly 100% of Vintage Aldyl-A Plastic and Unprotected Steel lines and nearly 80% of all Distribution Mains & Services. Improvements in LiDAR technology, as seen in 2023, could further increase emission reductions over time.

The current forecasts are based on 2019 pilot studies and the 2021-2024 rollout, using linear models. Additionally, the forecast assumes currently planned survey cycles of the various distribution lines, including 3-year survey cycles of Unprotected Steel lines.

Part 4. Cost Estimates

This measure has been incorporated into SoCalGas' routine O&M activities and will be included in SoCalGas' TY 2028 GRC Application.

Total Revenue Requirement over Expected Life of Investment
$8.4 million
Average Annual Revenue Requirement
$4.2 million

Part 5. Cost Effectiveness/Benefits

The program offers environmental, affordability, and safety benefits. As discussed in the sections above, by detecting leaks sooner, Aerial Monitoring helps SoCalGas reduce emissions from its distribution system, and earlier identification and repair of leaks also helps to enhance system safety.

Moreover, because this program identifies leaks on customer equipment, the program provides a direct safety and cost benefit for customers. This program provides cost benefits to customers by identifying leaks or other issues with their natural gas equipment and appliances. After repairs are completed, customers experience savings in their utility bills because unused gas is no longer leaking from their equipment and appliances. During 2028, SoCalGas estimates that this program will save customers close to $3.5 million due to mitigated leak emissions, assuming $1.56/therms. These benefits may be felt the strongest in DACs, where appliances may be leakier. In 2024, 19% of the customers covered were in DAC regions, but 37% of the leaks and 42% of incomplete combustion detections were in the DAC regions.

System emissions only calculation:

Historical Achieved Cost Effectiveness Calculations (2018-2024) ($/MCF)

Standard Cost Effectiveness	With Cap and Invest Cost Benefits	With Cap and Invest, and Social Cost of Methane Cost Benefits
$61	$59	$33

Forecast of Cost Effectiveness Calculations (2027-2028) ($/MCF)

Standard Cost Effectiveness	With Cap and Invest Cost Benefits	With Cap and Invest, and Social Cost of Methane Cost Benefits
$25	$23	-$3

System + Confirmed Non-system emissions calculation:

Historical Achieved Cost Effectiveness Calculations (2018-2024) ($/MCF)

Standard Cost Effectiveness	With Cap and Invest Cost Benefits	With Cap and Invest, and Social Cost of Methane Cost Benefits
$25	$23	-$2

Forecast of Cost Effectiveness Calculations (2027-2028) ($/MCF)

Standard Cost Effectiveness	With Cap and Invest Cost Benefits	With Cap and Invest, and Social Cost of Methane Cost Benefits
$10	$8	-$18

Part 6. Supplemental Information/Documentation

Not applicable.

2026 SB 1371 Compliance Plan
Chapter 15: Damage Prevention Public Awareness

Part 1. Evaluate the Current Practice Addressed in this Chapter

This Chapter addresses the following Best Practice(s):

Best Practice 24: Dig-Ins and Public Education Program
Expand existing public education program to alert the public and third-party excavation contractors to the Call Before You Dig – 811 program. In addition, utilities must provide procedures for excavation contractors to follow when excavating to prevent damaging or rupturing a gas line.
Best Practice 25: Dig-Ins and Company Standby Monitors
Utilities must provide company monitors to witness all excavations near gas transmission lines to ensure that contractors are following utility procedures to properly excavate and backfill around transmission lines.
Best Practice 26: Dig-Ins and Repeat Offenders
Utilities shall document procedures to address Repeat Offenders such as providing post-damage safe excavation training and on-site spot visits. Utilities shall keep track and report multiple incidents, within a 5-year period, of dig-ins from the same party in their Annual Emissions Inventory Reports. These incidents and leaks shall be recorded as required in the recordkeeping best practice. In addition, the utility should report egregious offenders to appropriate enforcement agencies including the California Contractor's State License Board. The Board has the authority to investigate and punish dishonest or negligent contractors. Punishment can include suspension of their contractor's license.

Historic Project Achievements:

SoCalGas implements a federally mandated Public Awareness program, as prescribed in 49 CFR § 192.616, which contributes to enhanced public safety. In addition, the State of California mandates a preconstruction meeting with excavators requesting Locate and Mark support and requires continuous monitoring of all excavations within ten feet of high-pressure pipelines pursuant to Cal. Gov't Code § 4216.2. The Public Awareness program is also driven by the requirements of 49 CFR. § 192.616, the technical document, Public Awareness Programs for Pipeline Operators, API RP 1162, and program expansion recommendations by regulators.

SoCalGas conducted the following activities:

- Contractor and Excavator Outreach
    - Paradigm Excavator Outreach Meetings – Additional safety meetings across the service territory.
    - Contractor Damage Prevention Awareness Meetings – Quarterly virtual meetings with DigAlert.
- Damage Prevention Analyst Engagements
    - On-site education including:
        - 7,765 proactive engagements in 2024.
        - 1,719 dig-in investigations in 2024.
        - 253 Outreach engagements in 2024.
        - 233 "Stop the Job" interventions in 2024.

  - Plumber/Sewer Contractor Outreach – Development of stand-alone pipeline safety mailers.
  - Solar/Electrical Contractor Outreach – Stand-alone mailers for pipeline safety.
  - Landscaper/Fencer Contractor Outreach – Mailers developed for pipeline safety.
- Community and Nonprofit Partnerships
  - Regional Public Affairs (RPA) Partnerships – Collaborations with cities, municipalities, and nonprofits.
  - Community Relations Nonprofit Partnerships – Outreach through major nonprofit organizations.
  - Community Outreach Events – Participation in events like Taste of Soul, FLOW Expo, and emergency fairs.
  - Big Shovel Display – Featured at large events including World Ag Expo and California Strawberry Festival.
- Media and Marketing Campaigns
  - 811 Media Campaign – Digital content and social media ads during National Safe Digging Month of April and August for 811 Day.
  - Social Media Campaigns – Targeted outreach across service territory.
  - Safety Marketing Campaign – "Always Call 811" multimedia campaign targeting contractors and homeowners.
  - Agricultural Safety Campaign – Focused outreach in San Joaquin Valley with nearly 6 million impressions.
- Sports Partnerships
  - MLB Los Angeles Angels Outreach – Stadium signage, radio commercials, and fan engagement.
  - MLB Los Angeles Dodgers Outreach – End-of-season messaging via podcasts and radio.
  - Common Ground Alliance Collaborations – 811 Day events with other operators.
  - Expanded Sports Partnerships – Outreach through LA Kings, Ontario Reign, LA Galaxy, LAFC, Los Angeles Lakers, Anaheim Ducks, Fresno State Bulldogs, and California Farm Bureau.
- Innovative Programs
  - Enertech Geofencing Program – Targeted messaging near relevant retail locations.
  - Good Neighbor Program – 811 postcards sent to neighbors of USA ticket submitters.
  - 811 Awareness Doorhanger Distribution Program – 35,000 doorhangers distributed in high-risk areas in 2024.
  - 811 Ambassador Program – Employee-led "See Something, Say Something" initiative.
  - Fleet Vehicle Program – Updated 811 stickers on fleet vehicles during maintenance.
  - Water and Energy Efficiency Kits – 811 info included in kits for low-income households in partnership with LADWP.

Emission Reductions Achieved:

Historical Emission Reductions (MCF)

2018	2019	2020	2021	2022	2023	2024
N/A	1,076	0	13,495	11,787	15,515	14,952

Emission reductions were estimated by taking the difference between Appendices 1 and 4 excavation damage emissions from emission year 2018 and the Appendices 1 and 4 excavation damage emissions for each respective year. Emission year 2018 was used as the baseline because implementation for this program began during 2019. Annual reductions from Chapter 17 (Repeat Offenders) were subtracted from the totals because Chapter 17 contributes emission reductions to the same area.

Cost Effectiveness Evaluation of Historic Work:

Historical Standard Cost Effectiveness ($/MCF)

Projected in 2024 Compliance Plan	Actual Cost Effectiveness (2018-2024)
N/A	$115

Part 2. Proposed New or Continuing Measure

SoCalGas plans to maintain the previously approved project and does not propose any new measures. For 2027, SoCalGas will utilize the authorized funds from Resolution G-3605, and the 2028 funding will be requested in SoCalGas' TY 2028 GRC Application.

Part 3. Abatement Estimates

Forecast of Emission Reductions (MCF)

2027	2028
1,302	15,233

The 2028 emission reductions were estimated as the average of the 2023 and 2024 reductions. The 2027 reductions were adjusted downward to account for the reduction in program funding.

Part 4. Cost Estimates

The 2027 costs are authorized by Resolution G-3605. The 2028 funding will be requested in SoCalGas' TY 2028 GRC Application. Revenue requirement for the work planned during 2027 and 2028 is included in the table below.

Total Revenue Requirement over Expected Life of Investment
$1.7 million
Average Annual Revenue Requirement
$0.9 million

Part 5. Cost Effectiveness/Benefits

In addition to reducing emissions, the Damage Prevention Public Awareness project enhances public safety by educating stakeholders of the risks of damaging pipelines during excavations. Through a wide range of outreach efforts, including contractor meetings, targeted mailers, and proactive field engagements, the project helps to prevent dig-ins that could lead to gas leaks.

These efforts advance affordability objectives by reducing costly emergency repairs. The project increases SoCalGas system reliability by equipping contractors and communities with the awareness to avoid damaging infrastructure. This is achieved by deploying innovative tools like geofencing and mobile outreach, and through real-time interventions that protect pipeline integrity. With expanded partnerships, multimedia campaigns, and community engagement, the project demonstrates a comprehensive and evolving approach to public awareness and damage prevention.

Historical Achieved Cost Effectiveness Calculations (2018-2024) ($/MCF)

Standard Cost Effectiveness	With Cap and Invest Cost Benefits	With Cap and Invest, and Social Cost of Methane Cost Benefits
$115	$113	$87

Forecast of Cost Effectiveness Calculations (2027-2028) ($/MCF)

Standard Cost Effectiveness	With Cap and Invest Cost Benefits	With Cap and Invest, and Social Cost of Methane Cost Benefits
$99	$98	$72

Part 6. Supplemental Information/Documentation

Not applicable.

2026 SB 1371 Compliance Plan
Chapter 16: Pipe Fitting Specifications

Part 1. Evaluate the Current Practice Addressed in this Chapter

This Chapter addresses the following Best Practice(s):

Best Practice 22: Pipe Fitting Specifications
Companies shall review and revise pipe fitting specifications, as necessary, to ensure tighter tolerance/better quality pipe threads. Utilities are required to review any available data on its threaded fittings, and if necessary, propose a fitting replacement program for threaded connections with significant leaks or comprehensive procedures for leak repairs and meter set assembly installations and repairs as part of their Compliance Plans. A fitting replacement program should consider components such as pressure control fittings, service tees, and valves metrics, among other things.

Historic Project Achievements:

Materials must meet SoCalGas' MSP requirements for all components. When materials are received, samples are inspected at a warehouse facility to verify requirements are met. Pipe fittings are components used to join pipe sections together with other fluid control products like valves and pumps to create pipelines. If there are any concerns regarding the quality of materials, including the threaded components and fittings, the Supply Management department is engaged to correct the issue and either engage the current vendor to increase quality assurance standards or begin contract negotiations with alternative vendors to confirm all concerns are addressed.

In 2019, SoCalGas hired a third-party consultant to review its QC process and MSP standards to identify consistent requirements across component categories, which resulted in enhancements to the following processes:

- Manufacturing and QC.
- Shipping, Handling, and Storage.
- Construction and Installation.
- O&M.

The intent of these enhancements was to reduce emissions from threaded pipe fittings by improving manufacturers' tolerances and thread quality. In 2021, SoCalGas hired a Project Manager to develop a project execution plan. The project execution plan was separated into two (2) phases. Phase One focused on updating the material specifications and QC inspection instruction standards. Phase Two focused on implementing the updated standards during the inspection process, shipping and handling, and construction and installation. A training program was completed during Phase Two to introduce internal stakeholders to recommended best practice improvements. SoCalGas' Gas Standard 185.0300, *MSA - Installing, Rebuilding and Inspections* was updated to include approved thread sealants and an installation procedure. A Company Gas Standard was developed for field-fabricated threads to confirm thread geometry was within acceptable tolerances.

Additional accomplishments include:

- Required manufacturers' thread fabrication process and product to conform to the National Pipe Thread (NPT) tolerances.
- Mandated that manufacturers apply plastic protectors to preserve thread quality during shipping and logistics.
- Developed and implemented a training program for QC inspection team focusing on updated material standards.
- Required manufacturers to demonstrate higher level of thread quality.
- Confirmed manufacturers conformed to updated material standards from QC programs.
- Conducted quarterly inventory studies to continue generating metrics and monitor thread quality and NPT thread tolerance from manufacturers.
- Enhanced QC inspection process.
- Coordination and data exchange with RD&D group on various thread-related studies to continually improve facilitation of program recommendations.
- Provided fitting repair and replacement reports to all internal stakeholders of the process, including QC and MSP engineer, for further evaluation.
- Developed recommendations for fitting replacement program.

Emission Reductions Achieved:

The measures in Chapter 16 were designed to comply with mandatory Best Practice 22 established by D.17-06-015. Due to the nature of Best Practice 22, emission reductions cannot be quantified.

Cost Effectiveness Evaluation of Historic Work:

Due to the nature of this work, emission reductions and cost effectiveness cannot be quantified.

Part 2. Proposed New or Continuing Measure

SoCalGas plans to maintain the previously approved project and does not propose any new measures in 2027. The 2028 funding will be requested in SoCalGas' TY 2028 GRC Application.

Part 3. Abatement Estimates

The measures in Chapter 16 were designed to comply with mandatory Best Practice 22 established by D.17-06-015. Due to the nature of Best Practice 22, emission reductions cannot be quantified.

Part 4. Cost Estimates

This measure has been incorporated into SoCalGas' routine O&M activities and will be included in SoCalGas' TY 2028 GRC Application.

Part 5. Cost Effectiveness/Benefits

The Pipe Fitting Specifications project supports multiple strategic goals by improving the quality and consistency of threaded pipe fittings used across SoCalGas' system. By imposing stricter manufacturing tolerances on thread geometry, the project directly contributes to emission reductions, as tighter seals minimize leaks. The project advances affordability objectives by reducing the frequency of leak-related repairs and emergency maintenance, streamlining procurement through standardized materials, and improving vendor quality assurance.

In addition, this project increases system resiliency through standardized installation procedures that provide consistent performance under varying conditions. The project contributes to reliability improvements by addressing fitting-related issues, which can help maintain system performance and consistent gas delivery. Each of these enhancements also provide the co-benefit of improved safety for customers. The project's training programs and updates to SoCalGas' Gas Standards further reinforce these benefits by embedding best practices into field operations. Overall, the project demonstrates a comprehensive approach to infrastructure improvement that delivers value across environmental, operational, and customer-focused dimensions.

Due to the nature of this work, emission reductions and cost effectiveness cannot be quantified.

Part 6. Supplemental Information/Documentation

Not applicable.

2026 SB 1371 Compliance Plan
Chapter 17: Repeat Offenders IT Systems

Part 1. Evaluate the Current Practice Addressed in this Chapter

This Chapter addresses the following Best Practice(s):

Best Practice 26: Dig-Ins and Repeat Offenders
Utilities shall document procedures to address Repeat Offenders such as providing post-damage safe excavation training and on-site spot visits. Utilities shall keep track and report multiple incidents, within a 5-year period, of dig-ins from the same party in their Annual Emissions Inventory Reports. These incidents and leaks shall be recorded as required in the recordkeeping best practice. In addition, the utility should report egregious offenders to appropriate enforcement agencies including the California Contractor's State License Board. The Board has the authority to investigate and punish dishonest or negligent contractors. Punishment can include suspension of their contractor's license.

Historic Project Achievements:

Best Practice 26 required a solution for capturing and reporting all dig-in incidents. Incidents caused by contractors are identified using contractor identification data from the CCSLB, and this data enabled accurate identification and reporting of repeat offenders. Incident information was captured on a paper form called the CPDR. The Repeat Offenders IT System project converted the paper form to an electronic form called the eCPDR and made it available on mobile devices. The eCPDR shared the form data across the systems used by the Customer Service, Distribution, and Claims departments. The data continues to be shared with the Data Lake (discussed in Chapter 7), which enables emissions reporting. In addition to identifying repeat offenders, the Repeat Offenders IT System eliminated manual effort and potential for data errors in managing paper damage forms, as well as improved the timeliness of reporting through automated data sharing and claim creation. The implementation of the Repeat Offenders IT System commenced in Q1 of 2022.

Emission Reductions Achieved:

Historical Emission Reductions (MCF)

2018	2019	2020	2021	2022	2023	2024
N/A	N/A	N/A	N/A	N/A	2,445	4,492

Emission reductions were estimated by determining the difference in repeat offender incidents that occurred during 2022 relative to each respective year following. The reduction in incidents was multiplied by the average excavation damage volume from Appendices 1 and 4 for each respective year to estimate the volume of emission reductions.

Cost Effectiveness Evaluation of Historic Work:

Historical cost effectiveness was not evaluated because implementation of the system commenced in Q1 of 2022.

Part 2. Proposed New or Continuing Measure

The Repeat Offenders IT System data will continue to be used to prevent damages and reduce emissions.

Part 3. Abatement Estimates:

Forecast of Emission Reductions (MCF)

2027	2028
3,469	3,469

The forecast for 2027 and 2028 assumes that the average level of reductions from 2023 and 2024 will be maintained.

Part 4. Cost Estimates

SoCalGas does not request funds for this Chapter in this Compliance Period.

Part 5. Cost Effectiveness/Benefits

The Repeat Offenders IT Systems project was designed to comply with the requirements of Best Practice 26. The implementation of this work has reduced emissions, enhanced safety, and bolstered reliability.

Cost effectiveness cannot be calculated because SoCalGas does not request funding for this Chapter during this Compliance Period.

Part 6. Supplemental Information/Documentation

Not applicable.

2026 SB 1371 Compliance Plan
Chapter 18: Accelerated Leak Repair - Transmission

Part 1. Evaluate the Current Practice Addressed in this Chapter

This Chapter addresses the following Best Practice(s):

Best Practice 21: Find It, Fix It
Utilities shall repair leaks as soon as reasonably possible after discovery, but in no event more than three (3) years after discovery. Utilities may make reasonable exceptions for leaks that are costly to repair relative to the estimated size of the leak.

Historic Project Achievements:
SoCalGas has historically repaired transmission leaks to meet the requirements of 49 CFR Part 192 and the CPUC's G.O. 112-F based on safety risk, and has coded leaks as grades 1, 2, and 3 based on population density, and concentration of the leak. In the past, leak repair prioritization was solely based on safety and was not correlated to emission volumes.

In the 2022 Compliance Plan, SoCalGas was approved to fund accelerated leak repairs beyond the normal repair timeframes. Repairing leaks faster on transmission lines directly attributes to lower emissions.

Emission Reductions Achieved:

SoCalGas cannot estimate emission reductions because it does not currently have an approved leaker-based methodology to utilize for the emission estimates.

Cost Effectiveness Evaluation of Historic Work:

SoCalGas cannot estimate cost effectiveness because it does not currently have an approved leaker-based methodology to utilize for the emission estimates.

Part 2. Proposed New or Continuing Measure

SoCalGas does not propose new or continuing measures for this Chapter.

Part 3. Abatement Estimates

SoCalGas is not proposing new or continuing measures, and therefore, abatement estimates are not available.

Part 4. Cost Estimates

SoCalGas does not request funds for this initiative in this Compliance Period.

Part 5. Cost Effectiveness/Benefits

Cost effectiveness cannot be calculated because SoCalGas does not request funding for this Chapter during this Compliance Period.

Part 6. Supplemental Information/Documentation

Not applicable.

2026 SB 1371 Compliance Plan
Chapter 19: Gas Speciation

Part 1. Evaluate the Current Practice Addressed in this Chapter

This Chapter addresses the following Best Practice(s):

Best Practice 17: Enhance Methane Detection
Utilities shall utilize enhanced methane detection practices (e.g. mobile methane detection and/or aerial leak detection) including gas speciation technologies.

Historic Project Achievements:

SoCalGas has a robust laboratory known as the Engineering Analysis Center (EAC). When a methane source is in question, the EAC dispatches a mobile gas speciation van to determine the chemical content of the gas and identify its source.

SoCalGas expanded the capacity of the EAC by increasing staff and equipment to respond to requests from Operations for leak speciation where a methane source is in question. These resources were also required to address lower detection limits of new advanced leak detection instrumentation and the increased level of leak survey activities being driven by the program.

Emission Reductions Achieved:

The measures in Chapter 19 were designed to comply with mandatory Best Practice 17 established by D.17-06-015. Due to the nature of Best Practice 17, emission reductions cannot be quantified.

Cost Effectiveness Evaluation of Historic Work:

Due to the nature of this work, emission reductions and cost effectiveness cannot be quantified.

Part 2. Proposed New or Continuing Measure

SoCalGas plans to maintain the previously approved project and does not propose new measures in 2027. The 2028 funding will be requested in SoCalGas' TY 2028 GRC Application.

Part 3. Abatement Estimates

The measures in Chapter 19 were designed to comply with mandatory Best Practice 17 established by D.17-06-015. Due to the nature of Best Practice 17, emission reductions cannot be quantified.

Part 4. Cost Estimates

This measure has been incorporated into SoCalGas' routine O&M activities and will be included in SoCalGas' TY 2028 GRC Application.

Part 5. Cost Effectiveness/Benefits

The Gas Speciation project plays a vital role in reducing emissions, enhancing safety, and supporting operational efficiency. Through the expansion of SoCalGas' EAC and the deployment of multiple mobile gas speciation vans staffed with additional qualified technicians, the Company has significantly enhanced its ability to conduct gas speciation analyses. This increased capacity enables more rapid and accurate identification of the chemical composition and source of methane leaks, thereby supporting timely and effective leak mitigation efforts. This capability enables SoCalGas to quickly differentiate leaks near other combustible gas sources such as gas seepage from natural occurring sources, sewer lines, or third-party oil & gas pipelines, and initiate repair efforts once the Gas Speciation team confirms that the leak originates from SoCalGas' system. As a result, this directly supports emission reductions by enabling faster verification and repair of leaks—minimizing the duration that methane is released into the atmosphere and reducing health and safety risk to the general public. Ultimately, the Gas Speciation project delivers significant benefits by enhancing safety, reducing environmental impact, and promoting timely and effective leak response.

Due to the nature of this work, emission reductions and cost effectiveness cannot be quantified.

Part 6. Supplemental Information/Documentation

Not applicable.

2026 SB 1371 Compliance Plan
Chapter 20: Public Leak Maps

Part 1. Evaluate the Current Practice Addressed in this Chapter

This Chapter addresses the following Best Practice(s):

Best Practice 20b: Geographic Tracking
Utilities shall develop methodologies for improved geographic tracking and evaluation of leaks from the gas systems. Utilities shall work together, with CPUC and ARB staff, to come to an agreement on a similar methodology to improve geographic evaluation and tracking of leaks to assist in demonstrations of actual emissions reductions. Leak detection technology should be capable of transferring leak data to a central database in order to provide data for leak maps. Geographic leak maps shall be publicly available with leaks displayed by zip code or census tract.

Historic Project Achievements:

Each year since 2021, SoCalGas has developed and published publicly available geographic maps of Distribution Main & Service leak information (e.g., ZIP codes & volume of emissions). The list of the Distribution Main & Service leaks is available to the public under Appendix 4 of the Annual Emissions Reports. SoCalGas plans to update the leak information in its public leak maps in Q3 each year because the submission date of the Annual Emissions Report is usually June 15th of each year. The maps allow customers to navigate the service territory via ZIP codes and view the current and historic volume of emissions associated with each ZIP code. The website address for the maps is as follows: https://www.socalgas.com/stay-safe/distribution-pipelines-emissions-map.

Emission Reductions Achieved:

The measures in Chapter 20 were designed to comply with mandatory Best Practice 20b established by D.17-06-015. Due to the nature of Best Practice 20b, emission reductions cannot be quantified.

Cost Effectiveness Evaluation of Historic Work:

Due to the nature of this work, emission reductions and cost effectiveness cannot be quantified.

Part 2. Proposed New or Continuing Measure

SoCalGas proposes to maintain and annually update, in Q3, the publicly available geographic maps of Distribution Main & Service leak information with the latest data from the Annual Emissions Report.

Part 3. Abatement Estimates

The measures in Chapter 20 were designed to comply with mandatory Best Practice 20b established by D.17-06-015. Due to the nature of Best Practice 20b, emission reductions cannot be quantified.

Part 4. Cost Estimates

The 2027 costs are authorized by Resolution G-3605. The 2028 funding will be requested in SoCalGas' TY 2028 GRC Application.

Part 5. Cost Effectiveness/Benefits

The activities of Chapter 20 are completed to comply with mandatory Best Practice 20b from D.17-06-015. Best Practice 20b requires utilities to create publicly available geographic leak maps, which enhances public accessibility to the NGLAP data.

Due to the nature of this work, emission reductions and cost effectiveness cannot be quantified.

Part 6. Supplemental Information/Documentation

Not applicable.

Part 1. Evaluate the Current Practice Addressed in this Chapter

This Chapter addresses the following Best Practice(s):

Best Practice 23: Minimize Emissions from Operations, Maintenance and Other Activities
Utilities shall minimize emissions from operations, maintenance, and other activities, such as new construction or replacement, in the gas distribution and transmission systems and storage facilities. Utilities shall replace high-bleed pneumatic devices with technology that does not vent gas (i.e. no-bleed) or vents significantly less natural gas (i.e., low-bleed) devices. Utilities shall also reduce emissions from blowdowns, as much as operationally feasible.
Best Practice 21: Find It, Fix It
Utilities shall repair leaks as soon as reasonably possible after discovery, but in no event more than three (3) years after discovery. Utilities may make reasonable exceptions for leaks that are costly to repair relative to the estimated size of the leak.
Best Practice 19: Aboveground Leak Surveys
Utilities shall conduct frequent leak surveys and data collection at aboveground transmission and high-pressure distribution (above 60 psig) facilities including Compressor Stations, Gas Storage Facilities, City Gates, and Metering & Regulating (M&R) Stations (M&R aboveground and pressure above 300 psig only). At a minimum, aboveground leak surveys and data collection must be conducted on an annual basis for compressor stations and gas storage facilities.

Historic Project Achievements:

Above ground leak surveys at Transmission Compressor facilities have historically been completed to meet the requirements of 49 CFR Part 192 and CPUC's G.O. 112-F. In addition, the CARB Oil and Gas Rule became effective January 1, 2018, which requires quarterly leak surveys at SoCalGas' Transmission Compressor facilities. These surveys meet the requirement for Best Practice 19. Beyond the regularly scheduled leak surveys, other surveys are performed using soap tests and by monitoring sight, sound, and smell leak indications.

Emission Reductions Achieved:

Emission reductions for this program are variable due to the nature of the project and have not been evaluated for 2018-2021 or 2023-2024 because SoCalGas did not have funding during these periods. The emissions reduced in 2022 were indirectly piloted by Blowdown Reduction Activities.

Historical Emission Reductions (MCF)

2018	2019	2020	2021	2022	2023	2024
N/A	N/A	N/A	N/A	1,378	N/A	N/A

Cost Effectiveness Evaluation of Historic Work:

SoCalGas cannot calculate the historical cost effectiveness in 2022 because Leak and Vented Emissions was not a specified measure in the 2020 Compliance Plan. The emissions reduced in 2022 were indirectly piloted by Blowdown Reduction Activities.

Part 2. Proposed New or Continuing Measure

SoCalGas does not propose new measures. SoCalGas will explore more cost-effective measures at Transmission Compressor Stations to further reduce emissions.

Part 3. Abatement Estimates

SoCalGas is not proposing new or continuing measures, and therefore, abatement estimates are not available.

Part 4. Cost Estimates

SoCalGas does not request funds for this Chapter in this Compliance Period.

Part 5. Cost Effectiveness/Benefits

Cost effectiveness cannot be calculated because SoCalGas does not request funding for this Chapter during this Compliance Period.

Part 6. Supplemental Information/Documentation

Not applicable.

2026 SB 1371 Compliance Plan
Chapter 22: Vapor Collection Systems

Part 1. Evaluate the Current Practice Addressed in this Chapter

This Chapter addresses the following Best Practice(s):

Best Practice 23: Minimize Emissions from Operations, Maintenance and Other Activities
Utilities shall minimize emissions from operations, maintenance and other activities, such as new construction or replacement, in the gas distribution and transmission systems and storage facilities. Utilities shall replace high-bleed pneumatic devices with technology that does not vent gas (i.e., no-bleed) or vents significantly less natural gas (i.e., low-bleed) devices. Utilities shall also reduce emissions from blowdowns, as much as operationally feasible.

Historic Project Achievements:

In the 2018 Compliance Plan, SoCalGas requested and was approved for funding to collect emissions data from compressor rod packing systems and install vapor recovery systems on compressors. The vapor recovery systems would collect rod packing emissions which would otherwise be vented to the atmosphere. SoCalGas selected the Blythe Compressor Station as the first vapor recovery system project to be evaluated for cost effectiveness before proposing similar systems at other compressor stations. The Blythe vapor recovery system allows for the collection of emissions from compressor rod packing that would otherwise be vented directly to the atmosphere.

Emission Reductions Achieved:

Historical Emission Reductions (MCF)

2018	2019	2020	2021	2022	2023	2024
N/A	N/A	N/A	1,674	76	3,427	11

Cost Effectiveness Evaluation of Historic Work:

Historical cost effectiveness was not evaluated because there was no authorized funding for the 2022 Compliance Period.

Part 2. Proposed New or Continuing Measure

SoCalGas does not propose new measures. SoCalGas will explore more cost-effective measures at Transmission Compressor Stations to further reduce emissions.

Part 3. Abatement Estimates

Forecast of Emission Reductions (MCF)

2027	2028
324	324

The forecast for 2027 and 2028 assumes that the emission flow rates without vapor recovery would be equal to the flow rates from emission year 2024. In addition, the forecast assumes that the compressors with vapor recovery will operate a combined 3,921 hours per year, and the vapor recovery system will capture 90% of the potential emissions.

Part 4. Cost Estimates

SoCalGas does not request funds for this Chapter in this Compliance Period.

Part 5. Cost Effectiveness/Benefits

Cost effectiveness cannot be calculated because SoCalGas does not request funding for this Chapter during this Compliance Period.

Part 6. Supplemental Information/Documentation

Not applicable.

2026 SB 1371 Compliance Plan
Chapter 23: Distribution Above Ground Leak Survey

Part 1. Evaluate the Current Practices Addressed in this Chapter

This Chapter addresses the following Best Practice(s):

Best Practice 19 Distribution: Aboveground Leak Surveys
Utilities shall conduct frequent leak surveys and data collection at above ground transmission and high-pressure distribution (above 60 psig) facilities including Compressor Stations, Gas Storage Facilities, City Gates, and Metering & Regulating (M&R) Stations (M&R above ground and pressures above 300 psig only). At a minimum, above ground leak surveys and data collection must be conducted on an annual basis for compressor stations and gas storage facilities.

Historic Project Achievements:

Above ground leakage surveys have historically been completed to meet the requirements of 49 C.F.R. Part 192 and CPUC's G.O. 112-F, which also satisfy the requirements defined in Best Practice 19. Historically, not all leakage survey inspections performed on Measurement and Regulation (M&R) stations have been performed using instrumentation, resulting in leak indications not being captured. Many M&R Station leak inspections were performed using soap tests and by monitoring for sight, sound, and smell.

In the 2018 Compliance Plan, SoCalGas requested and was approved funding to provide M&R Technicians with instrumentation to begin performing and recording instrumented leakage surveys. SoCalGas purchased the required instruments to perform instrumented inspections. SoCalGas also updated Gas Standard 184.0275, *Inspection Schedule – Regulator Station, Power Generating Plant Regulation Equipment Requirements,* to require M&R Technicians to soap test all connections during inspections and leave facilities free of leaks.

In 2020, SoCalGas ordered approximately 21 Remote Methane Leak Detectors to assist with leak surveys at regulator stations. Due to the COVID-19 Pandemic, in-person training was postponed with approximately 150 employees needing in-person training for the new instrumentation. In 2021, SoCalGas conducted Train-the-Trainer classes consisting of training supervisors who then would train field personnel. No incremental staffing was required to implement this measure because the measurement tool is an additional piece of equipment that helps detect methane leaks on SoCalGas regulator stations in addition to what is practiced in the field, as mentioned above.

Emission Reductions and Cost Effectiveness:

Historical Emission Reductions (MCF)

2018	2019	2020	2021	2022	2023	2024
N/A	N/A	0	918	1,416	1,812	1,226

Historical cost effectiveness was not evaluated because there was no authorized funding for the 2022 Compliance Period.

Part 2. Proposed New or Continuing Measure

SoCalGas will continue performing instrumented above ground leak surveys.

Part 3. Abatement Estimates

Forecast of Emission Reductions (MCF)

2027	2028
1,519	1,519

The forecasted emission reductions during 2027 and 2028 represent the average achieved reductions in 2023 and 2024.

Part 4. Cost Estimates

SoCalGas does not request funds for this Chapter in this Compliance Period.

Part 5. Cost Effectiveness/Benefits

Cost effectiveness cannot be calculated because SoCalGas does not request funding for this Chapter during this Compliance Period.

Part 6. Supplemental Information/Documentation

Not applicable.

Part 1. Evaluate the Current Practice Addressed in this Chapter

This Chapter addresses the following Best Practice(s):

Best Practice 19: Aboveground Leak Surveys
Utilities shall conduct frequent leak surveys and data collection at aboveground transmission and high-pressure distribution (above 60 psig) facilities including Compressor Stations, Gas Storage Facilities, City Gates, and Metering & Regulating (M&R) Stations (M&R aboveground and pressure above 300 psig only). At a minimum, aboveground leak surveys and data collection must be conducted on an annual basis for compressor stations and gas storage facilities.
Best Practice 21: Find It, Fix It
Utilities shall repair leaks as soon as reasonably possible after discovery, but in no event, more than three (3) years after discovery. Utilities may make reasonable exceptions for leaks that are costly to repair relative to the estimated size of the leak.

Historic Project Achievements:

Aboveground leak surveys at storage facilities are completed to meet the requirements of 49 CFR Part 192, Subpart M (Maintenance) and CPUC's G.O. 112-F. However, most of the surveys use equipment to detect the leak rather than equipment that measures the concentration of the leak to levels required by the CARB. Effective January 1, 2018, CARB's Oil and Gas Rule requires quarterly leak surveys at storage facilities; as well as requiring storage facilities to implement a monitoring plan effective August 6, 2019. SoCalGas' monitoring plan includes ambient methane monitoring, wellhead leak detection monitoring, and optical gas imaging of a well blowout. In addition to the regularly scheduled leak surveys, other surveys are performed using soap tests and by monitoring for sight, sound, and smell leak indications.

Emission Reductions Achieved:

Historical Emission Reductions (MCF)

2018	2019	2020	2021	2022	2023	2024
N/A	N/A	721	1,323	1,508	1,758	1,467

Emission reductions have increased from 2020 to 2022. Beginning in 2020, leaks greater than or equal to 1,000 PPM were required to be repaired per the CARB Oil and Gas Rule. SoCalGas has improved on repairing these leaks under the required timeframe and these efforts have shown measurable returns in continuing to reduce emissions.

Cost Effectiveness Evaluation of Historic Work:

Historical Standard Cost Effectiveness ($/MCF)

Projected in 2024 Compliance Plan	Actual Cost Effectiveness (2018-2024)
$938	$1,068

Part 2. Proposed New or Continuing Measure

SoCalGas does not request funding for this Chapter because continuing these efforts is currently not cost-effective.

Part 3. Abatement Estimates

SoCalGas is not proposing new or continuing measures, and therefore, abatement estimates are not available.

Part 4. Cost Estimates

SoCalGas does not request funds for this Chapter in this Compliance Period.

Part 5. Cost Effectiveness/Benefits

Cost effectiveness cannot be calculated because SoCalGas does not request funding for this Chapter during this Compliance Period.

Part 6. Supplemental Information/Documentation

Not applicable.

2026 SB1371 Compliance Plan
Chapter 25: Distribution Above Ground Leak Repair

Part 1. Evaluate the Current Practices Addressed in this Chapter

This Chapter addresses the following Best Practice(s):

Best Practice 19: Above Ground Leak Surveys
Utilities shall conduct frequent leak surveys and data collection at above ground transmission and high-pressure distribution (above 60 psig) facilities including Compressor Stations, Gas Storage Facilities, City Gates, and Metering & Regulating (M&R) Stations (M&R above ground and pressures above 300 psig only). At a minimum, above ground leak surveys and data collection must be conducted on an annual basis at compressor stations and gas storage facilities.
Best Practice 21: Find It, Fix It
Utilities shall repair leaks as soon as reasonably possible after discovery, but in no event, more than three (3) years after discovery. Utilities may make reasonable exceptions for leaks that are costly to repair relative to the estimated size of the leak.

Historic Project Achievements:

In the 2018 Compliance Plan, SoCalGas requested and was approved funding to repair its AG minor leak inventory. In October 2018, this inventory included roughly 5,400 AG minor leaks. In 2019, SoCalGas repaired approximately 5,000 of these AG minor leaks. In March of 2020, SoCalGas completed mitigating approximately 400 leaks to reduce SoCalGas' inventory to zero. For the rest of 2020, SoCalGas worked on mitigating leaks within six (6) months of detection.

In addition to reducing the AG minor leak inventory in 2020, SoCalGas updated its Gas Standard 223.0126, *Above Ground Leakage Classification and Mitigation Schedules,* for AG minor leaks. Previously, Operations had the flexibility to repair AG minor leaks when it was practical to do so. Gas Standard 223.0126, *Above Ground Leakage Classification and Mitigation Schedules* was revised in 2020 requiring AG minor leaks discovered by Distribution to be classified as "AG non-hazardous" leaks and to be repaired in a time frame of ten (10) days to six (6) months, depending on the leak proximity to a building. Distribution no longer classifies AG leaks as AG minor at the time of detection.

In 2021, SoCalGas continued the efforts of repairing AG non-hazardous leaks within six (6) months of detection and not having an inventory by that year's end. To support these leak repair efforts, SoCalGas used incremental field employees discussed in Chapters 1 and 2 to manage the AG non-hazardous inventory.

Emission Reductions Achieved:

No updates to the achieved emission reductions were made for this Compliance Period.

Cost Effectiveness Evaluation of Historic Work

Historical cost effectiveness was not evaluated because there was no authorized funding for the 2022 Compliance Period.

Part 2. Proposed New or Continuing Measure

SoCalGas does not propose new or continuing measures for this Chapter.

Part 3. Abatement Estimates

SoCalGas is not proposing new or continuing measures, and therefore, abatement estimates are not available.

Part 4. Cost Estimates

SoCalGas does not request funds for this Chapter in this Compliance Period.

Part 5. Cost Effectiveness/Benefits

Cost effectiveness cannot be calculated because SoCalGas does not request funding for this Chapter during this Compliance Period.

Part 6. Supplemental Information/Documentation

Not applicable.

2026 SB 1371 Compliance Plan
Chapter 26: High Bleed Device Replacement

Part 1. Evaluate the Current Practice Addressed in this Chapter

This Chapter addresses the following Best Practice(s):

Best Practice 23: Minimize Emissions from Operations, Maintenance and Other Activities
Utilities shall minimize emissions from operations, maintenance and other activities, such as new construction or replacement, in the gas distribution and transmission systems and storage facilities. Utilities shall replace high bleed pneumatic devices with technology that does not vent gas (i.e. no-bleed) or vents significantly less natural gas (i.e. low-bleed) devices. Utilities shall also reduce emissions from blowdowns, as much as operationally feasible.

Historic Project Achievements:

Since 1993, SoCalGas has been addressing the replacement of high-bleed pneumatic devices through the EPA Natural Gas STAR[6] Best Practice. Pneumatic devices powered by pressurized natural gas are used widely in the natural gas industry as pressure regulators and valve controllers. Emission reductions are achieved by replacing high-bleed devices with low-bleed devices, retrofitting high-bleed devices, and improving maintenance practices. Individual savings have varied depending on the design, condition, and specific operating conditions of the controller.

Pneumatic devices come in three (3) basic designs:

- Continuous bleed devices are used to modulate pressure and generally vent gas at a steady rate.
- Actuating or intermittent bleed devices perform snap-acting control and release gas only when they stroke a valve open or closed or as they throttle gas flows.
- Self-contained devices release gas into the downstream pipeline, not to the atmosphere.

Emission reductions from pneumatic devices were pursued by the following options, either alone or in combination:

- Replacement of high-bleed devices with low-bleed devices having similar performance capabilities.
- Installation of low-bleed retrofit kits on operating devices.
- Enhanced maintenance, cleaning and tuning, repairing/replacing leaking gaskets, tubing fittings, and seals.

In the 2018 Compliance Plan, SoCalGas was approved to remove the eight (8) remaining High Bleed Pneumatic Devices found in operation and, as of 2020, all have been removed or replaced. In 2021, no new devices were identified, removed, or replaced from the system. No incremental staffing was required to implement this measure.

[6] Natural Gas STAR Program | US EPA: https://www.epa.gov/natural-gas-star-program/natural-gas-star-program.

Emission Reductions Achieved:

Historical Emission Reductions (MCF)

2018	2019	2020
1,337	1,337	1,500

Cost Effectiveness Evaluation of Historic Work:

Historical cost effectiveness was not evaluated because there was no authorized funding for the 2022 Compliance Period.

Part 2. Proposed New or Continuing Measure

SoCalGas does not propose new or continuing measures for this Chapter.

Part 3. Abatement Estimates

SoCalGas is not proposing new or continuing measures, and therefore, abatement estimates are not available.

Part 4. Cost Estimates

SoCalGas does not request funds for this Chapter in this Compliance Period.

Part 5. Cost Effectiveness/Benefits

Cost effectiveness cannot be calculated because SoCalGas does not request funding for this Chapter during this Compliance Period.

Part 6. Supplemental Information/Documentation

Not applicable.

2026 SB 1371 Compliance Plan
RD&D Summary

In accordance with CPUC guidance in Resolution G-3605, the SoCalGas NGLAP Research, Demonstration & Development projects will be moved into the broader Research and Development program in its next TY 2028 GRC Application. Deliverables and reports from previously funded work will be completed during the 2024 Compliance Plan Period. This includes reports on the following projects:

- Fleet-based Passive Mobile Methane Detection with United States Postal Service (USPS).
- Improving Aerial Monitoring Cost Effectiveness through Ferry Scans.
- Improved Advanced Meter Algorithms for Customer Leak Detection.
- MSA Failure Mode Analysis.
- Pipe Thread Sealant Performance in Storage Applications.
- Cost Effectiveness Framework.
- Geographic Leak Data Environmental Justice Analysis.

A summary of NGLAP-related projects under the TY 2028 GRC will be provided in the 2028-2029 Compliance Plan. Below are two RD&D initiatives related to this program that will be proposed in the TY 2028 GRC Application.

Environmental and Safety Initiative

Identified Need	Proposed Solution	Anticipated Impacts
• The success of the NGLAP research program enabled SoCalGas to nearly achieve the 40% reduction target ahead of schedule, but more work is needed to achieve NZE. • 80% of the remaining emissions are from Distribution Mains & Services and Customer Meters. These emissions come from tens of thousands of leaks spread over six (6) million meters and 100,000 miles of pipeline. • Cost-effective system survey and leak prevention methods are needed to achieve safety and environmental goals while reducing customer costs.	• Integrate and analyze existing data from siloed systems to uncover prominent failure modes. • Leverage failure mode data and lessons learned from prior research to identify and validate cost-effective leak prevention solutions. • Evaluate advanced leak detection technologies capable of rapidly and frequently covering the vast territory at lower overall cost.	Carbon Emissions Reduction: Decrease in greenhouse gas emissions. Safety: Reduction in probability of incident occurrence. Cost Efficiency: Reduction in inspection, maintenance and repair costs.

Projects being proposed under this initiative currently include:

- Validation of Meter Set Component Alternatives.
- Multi-Source Emissions Data Integration & Failure Mode Mapping.
- Next Generation Aerial Leak Detection.
- Systemwide Leak Survey Optimization.

Community Impact and Energy Conservation Initiative

Identified Need	Proposed Solution	Anticipated Impacts
• Customers have limited means of recognizing unintended gas usage (e.g., odor, high bill). • Monetary impact of excess usage disproportionately affects DACs. • Algorithms utilizing AM data detect some, but not all usage anomalies. • False positive indications from AM algorithms increase operational costs.	• Prior research showed aerial leak survey data could be used to enhance AM algorithms, improving gas leak and hot water leak detection. • Further refinement of this approach is needed to reduce false positive rate. • Accurate identification of these anomalies can reduce customer costs while enhancing safety. • Data insights into areas of frequent or unresolved gas and hot water leaks could support efforts to address systemic maintenance challenges in DACs.	Cost Savings: Reduction in energy usage for customers. Cost Efficiency: Reduction in maintenance and repair costs. Carbon Emissions Reduction: Decrease in greenhouse gas emissions.

Projects being proposed under this initiative currently include:

- Field Validation of Aerial Data Enhanced Advanced Meter Algorithm.
- Refinement of Enhanced Advanced Meter Algorithm.
- Maintenance Analytics for Disadvantaged Communities.
- Customer-Facing Consumption Insight Tool.