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PG&E's biennial 2026 Natural Gas Leak Abatement
(NGLA) Compliance Plan, setting forth NGLA
compliance measures to be undertaken in 2026 and 2027
Revised [April 8, 2026]

to ALJs' April, 24, 2026 Ruling

PACIFIC GAS AND ELECTRIC COMPANY
2026 LEAK ABATEMENT COMPLIANCE PLAN
MARCH 13, 2026
Rev. [April 8, 2026]¹

SECTION A: PLAN INTRODUCTION AND SUMMARY

On January 22, 2015, the California Public Utilities Commission (CPUC or Commission) issued the Order Instituting Rulemaking (OIR) (R.) 15-01-008 to implement the provisions of Senate Bill (SB) 1371 (Statutes 2014, Chapter 525). SB 1371 requires the adoption of rules and procedures to minimize natural gas leakage from Commission-regulated natural gas pipeline facilities consistent with Public Utilities Code § 961(d), § 192.703(c) of Subpart M of Title 49 of the Code of Federal Regulations (CFR), the Commission’s General Order (GO) 112-F, and the state’s goal of reducing GHG emissions. In the June 15, 2017, Decision (D.) 17-06-015, the Commission adopted 26 Best Practices (BP) related to natural gas leak abatement (phase one). In August 2019, the Commission’s Phase II Decision (D. 19-08-020) adopted a restriction on rate recovery beginning in 2025, for methane emissions greater than 20% below the 2015 baseline levels for Pacific Gas and Electric Company (PG&E) and SoCalGas, to ensure that expenditures authorized to implement their Compliance Plans achieve their intended methane emissions reductions.

PG&E submits this Leak Abatement Compliance Plan (2026 Compliance Plan) pursuant to Senate Bill (SB) 1371, which requires gas utilities to file biennial plans demonstrating progress toward minimizing methane emissions through implementation of the 26 Best Practices. This plan builds on prior CPUC-approved compliance plans, and outlines PG&E’s actions, governance processes, and continuous-improvement efforts to reduce methane emissions across its natural gas system. This 2026 Compliance Plan is the fifth biennial plan and covers the years 2026-2027.

As of Reporting Year 2024, PG&E reduced methane emissions by 52.2% relative to the adjusted 2015 baseline, exceeding the 2025 compliance goal of 20% reduction. Since 2018, PG&E has implemented a series of measures under previous compliance plans. These key measures are listed in the table below.

¹ Limited revisions have been made to the original 2026 Compliance Plan to address errors in the submission.

Table 1 – Key Measures and Actions by Compliance Period (2018–2025)

Compliance Period	Key Measures/Actions
2018-2019	<ul style="list-style-type: none"> • Accelerated detection and repair of large leaks on the distribution system through the Super Emitter (SE) Program • Accelerated distribution system compliance survey from 5 to 3 years • Cross compression and drafting practices on backbone transmission pipeline projects • Replacement of 100+ high bleed pneumatic devices • Quarterly surveys at compressor stations and storage facilities
2020-2021	<ul style="list-style-type: none"> • Meter set leak bubble classification and repair prioritization • Project bundling to minimize blowdown emissions • Extending cross compression to local transmission projects
2022-2023	<ul style="list-style-type: none"> • Lowering Super Emitter threshold from 10 to 7 scfh prioritizing more large leaks for repair • Leveraging Super Emitter drives for DIMP vintage pipeline surveys • Replacing 10 high bleed pneumatic devices • Extending blowdown strategies to compressor stations and storage facilities
2024-2025	<ul style="list-style-type: none"> • Further reduction of Super Emitter threshold from 7 to 6 to 5 scfh prioritizing more large leaks for repair • Replacing 17 high bleed pneumatic devices • Prioritizing repair of outdoor meter set Class B leaks • Transitioning to a component-level methodology for Transmission Metering and Regulating (M&R) stations

Baseline Adjustment

Since the NGLA reporting process began, CPUC, the California Air Resources Board (CARB) and PG&E have collaborated to adjust the 2015 baseline emissions to incorporate improved measurement and estimation methods. These adjustments enable more accurate calculation of emission reductions and cost-effectiveness evaluations, ensuring alignment with CPUC Joint Annual Reports and California’s climate goals.

The CPUC Safety Policy Division (SPD) has approved several baseline adjustments, as shown in Tables 2 through 4 below.

Table 2 – 2015 Baseline Adjustment Approved in 2022

Appendix	System Category	Emission Source Category	Original 2015 Baseline Emissions (Mscf)	Adjusted 2015 Baseline Emissions (Mscf)
3	Transmission Compressor Stations	Component Vented Emissions	N/A	10,172
		Component Fugitive Leaks	15,823	16,928
4	Distribution Mains and Services Pipelines	All Damages (Fugitives)	146,335	141,102
5	Distribution Metering and Regulating Stations	Station Leaks & Emissions (Fugitives)	741,986	9,440
6	Meter Set Assemblies	Meter Leaks (Fugitives)	636,034	245,907
		All Damages (Fugitives)	N/A	5,233
7	Underground Storage	Storage Leaks & Emissions (Fugitives)	11,870	2,036
		Component Vented Emissions	N/A	86,681
		Component Fugitive Leaks	10,574	75,957
		Dehydrator Vent Emissions (Fugitives)	6,761	13

Table 3 – 2015 Baseline Adjustments Approved in 2023

Appendix	System Category	Emission Source Category	Original 2015 Baseline Emissions (Mscf)	Adjusted 2015 Baseline Emissions (Mscf)
1	Transmission Pipelines	Component Vented Emissions	4,591	35,912
4	Distribution Mains & Service	Pipeline Leaks (Fugitives)	626,590	481,638

Table 4 – 2015 Baseline Adjustments Approved in 2025

Appendix	System Category	Emission Source Category	Original 2015 Baseline Emissions (Mscf)	Adjusted 2015 Baseline Emissions (Mscf)
2	Transmission M&R Stations	Station Leaks & Emissions	579,240	N/A
		Component Vented Emissions	N/A	31,545
		Component Fugitive Leaks	N/A	8,831

With these baseline adjustments and current programs/measures in place—including Transmission Blowdown Abatement Strategies, Super Emitter Program, Damage Prevention Program, and implementation of the CARB Oil & Gas Rule—PG&E has exceeded the 2025 compliance goal of achieving a 20% reduction compared to the adjusted 2015 baseline. To maintain this progress, PG&E will explore the following measures:

- Optimize the Super Emitter program through threshold and/or survey frequency adjustments
- Measurement and Control (or Regulator) station leak and emission management
- Continuous prioritization of the Distribution Main & Service leaks repair based on size estimated from vehicle-based measurements
- Meter set Class B leak repair prioritization
- Expand blowdown reduction strategies to additional Metering & Regulating Stations, Compressor Stations, and Underground Storage facilities

2015 Baseline vs. Reporting Year (RY) 2024 Emissions, including Supporting Best Practices

Table 5 shows the 2015 Baseline emissions vs. the RY 2024 emissions. Compared to the currently approved adjusted 2015 baseline, emissions in 2024 decreased by 52.2%

Table 5 - Total Emissions Comparing 2015 Adjusted Baseline with RY 2024 Emissions	
Approved Adjusted 2015 Baseline (Mscf)	1,665,960
2024 Total Annual Volume of Leaks & Emissions (Mscf)	796,118
Comparison with Adjusted Baseline	52.2%

Table 6 compares the 2015 baseline emissions with the 2024 reported emissions, as reported in PG&E’s 2024 Natural Gas Leak Abatement Annual Report, for each system category and the Best Practices supporting emissions reduction. At this time, projections for 2025 emissions are unavailable and will be submitted on June 15, 2026 in PG&E’s Natural Gas Leak Abatement Annual Report.

Table 6 - 2015 Baseline vs. RY 2024 Emissions, including Supporting Best Practice

System Categories	Emission Source Categories	Fugitive or Vented	For Informational and Reference Purposes Only: Original 2015 Baseline Emissions (Mscf)	Approved Adjusted 2015 Baseline Emissions (Mscf)	2024 Total Annual Volume of Leaks & Emissions (Mscf)	Percentage Change for Year Over Year Comparison from Approved Adjusted 2015 Baseline to 2024	Best Practice Support Emissions Reduction
Transmission Pipelines	Pipeline Leaks	Fugitive	3,701	3,701	2,039	-44.9%	BP 17 - Enhanced Methane Detection BP 19 - Above Ground Leak Surveys BP 21 - Find It/Fix It
	All Damages	Fugitive	81,793	81,793	38,970	-52.4%	BP 24 - Dig-Ins / Public Education Program BP 25 - Dig-Ins / Company Standby Monitors BP 26 - Dig-Ins / Repeat Offenders
	Blowdowns	Vented	251,227	251,227	29,377	-88.3%	BP 3 - Pressure Reduction Policy BP 4 - Project Scheduling Policy BP 5 - Methane Evacuation Procedure BP 6 - Methane Evacuation Work Order Policy BP 7 - Bundling Work Policy
	Component Emissions	Vented	4,591	35,912	17,442	-51.4%	BP 23 - Minimize Emissions from Operations, Maintenance and Other Activities
	Component Leaks	Fugitive	N/A	N/A	N/A	N/A	N/A
	Odorizers	Vented	135	135	133	-1.5%	N/A
	Station Leaks & Emissions	Fugitive	579,240	579,240	N/A	N/A	N/A
Transmission M&R Stations	Component Emissions	Vented	N/A	31,545	25,718	-18.5%	BP 23 - Minimize Emissions from Operations, Maintenance and Other Activities
	Component Leaks	Fugitive	N/A	8,831	3,305	-62.6%	BP 19 - Above Ground Leak Surveys BP 21 - Find It/Fix It
	Blowdowns	Vented	65,456	65,456	9,517	-85.5%	n/a
	Compressor Emissions	Vented	70,186	70,186	6,241	-91.1%	BP 23 - Minimize Emissions from Operations, Maintenance and Other Activities
Transmission Compressor Stations	Compressor Leaks	Fugitive	N/A	N/A	N/A	N/A	N/A
	Blowdowns	Vented	19,864	19,864	39,190	97.3%	BP 3 - Pressure Reduction Policy BP 4 - Project Scheduling Policy BP 5 - Methane Evacuation Procedure BP 6 - Methane Evacuation Work Order Policy BP 7 - Bundling Work Policy
	Component Emissions	Vented	N/A	10,172	4,541	-55.4%	BP 23 - Minimize Emissions from Operations, Maintenance and Other Activities
	Component Leaks	Fugitive	15,823	16,928	17,839	5.4%	BP 23 - Minimize Emissions from Operations, Maintenance and Other Activities
	Storage Tank Leaks & Emissions	Vented	N/A	N/A	N/A	0.0%	BP 17 - Enhanced Methane Detection BP 19 - Above Ground Leak Surveys BP 21 - Find It/Fix It
	Pipeline Leaks	Fugitive	626,590	481,638	242,895	-49.6%	BP 17 - Enhanced Methane Detection BP 19 - Above Ground Leak Surveys BP 15 - Gas Distribution Leak Surveys BP 16 - Special Leak Surveys BP 21 - Find It/Fix It BP 22 - Pipe Fitting Specifications
	All Damages	Fugitive	146,335	141,102	60,167	-57.4%	BP 24 - Dig-Ins / Public Education Program BP 25 - Dig-Ins / Company Standby Monitors BP 26 - Dig-Ins / Repeat Offenders
Distribution Main & Service Pipelines	Blowdowns	Vented	141	141	624	342.6%	N/A
	Component Emissions	Vented	N/A	N/A	N/A	N/A	N/A
	Component Leaks	Fugitive	N/A	N/A	N/A	N/A	N/A
	Station Leaks & Emissions - Leak-Based	Fugitive	741,986	9,440	7,593	-19.6%	BP 17 - Enhanced Methane Detection BP 19 - Above Ground Leak Surveys BP 21 - Find It/Fix It BP 22 - Pipe Fitting Specifications
	All Damages	Fugitive	N/A	N/A	51	N/A	N/A
Customer Meters	Blowdowns	Vented	147	147	240	63.3%	N/A
	Meter Leaks - Leak-Based	Fugitive	636,034	245,907	193,702	-21.2%	BP 17 - Enhanced Methane Detection BP 19 - Above Ground Leak Surveys BP 21 - Find It/Fix It BP 22 - Pipe Fitting Specifications
	All Damages	Fugitive	N/A	5,233	1,108	-78.8%	BP 24 - Dig-Ins / Public Education Program BP 25 - Dig-Ins / Company Standby Monitors BP 26 - Dig-Ins / Repeat Offenders
	Vented Emissions	Vented	231	231	168	-27.3%	BP 23 - Minimize Emissions from Operations, Maintenance and Other Activities
Underground Storage	Storage Leaks & Emissions	Fugitive	11,870	2,036	1,747	-14.2%	BP 17 - Enhanced Methane Detection BP 19 - Above Ground Leak Surveys BP 21 - Find It/Fix It BP 22 - Pipe Fitting Specifications
	Compressor Emissions	Vented	5,360	5,360	1,703	-68.2%	BP 23 - Minimize Emissions from Operations, Maintenance and Other Activities
	Blowdowns	Vented	16,324	16,324	7,102	-56.5%	BP 3 - Pressure Reduction Policy BP 4 - Project Scheduling Policy BP 5 - Methane Evacuation Procedure BP 6 - Methane Evacuation Work Order Policy BP 7 - Bundling Work Policy
	Component Emissions	Vented	N/A	86,681	78,244	-9.7%	BP 23 - Minimize Emissions from Operations, Maintenance and Other Activities
	Component Leaks	Fugitive	10,574	75,957	6,505	-91.4%	BP 23 - Minimize Emissions from Operations, Maintenance and Other Activities BP 22 - Pipe Fitting Specifications
	Dehydrator Vent Emissions	Fugitive	6,761	13	8	-38.5%	BP 23 - Minimize Emissions from Operations, Maintenance and Other Activities
	Unusual Large Leaks	N/A	N/A	N/A	N/A	N/A	N/A

Table 7 provides reported 2024 emissions and 2030 emission projections by measure. Detailed cost-effectiveness analysis is discussed in greater detail in each chapter, where applicable.

Table 7 - Emissions Level Estimate, Mscf, Year End

Measure (Chapter No.)	2024 Emission Reduction Compared to 2015, Mscf	2024 % Reduc.	2030 Target Emission Reduction, Mscf	2030 % Reduc.	Cost Effectiveness Part 5b \$/MSCF			Notes
					Standard Cost Effectiveness (\$/Mscf)	Standard Cost Effectiveness including Cap & Trade Cost Benefits (\$/Mscf)	Standard Cost Effectiveness Calculation including Social Cost of Methane Benefits (\$/Mscf)	
1) Non-Emergency Gas Transmission Blowdown Reduction (Chapter 3)	267,685	16%	265,043	16%	\$9	\$7	(\$19)	Cost effectiveness is calculated by taking a two year average of the total volume of gas abated via cross compression, the total project cost of cross compression, and maintenance costs.
2) Gas Distribution Leak Surveys (Chapter 7) - Accelerated Leak Survey	Not provided, this is dependent on the repairs				\$52	\$51	\$25	Using 2025-2027 cost forecasts to calculate the incremental annual cost of transitioning from 5-year to 3-year cycle
3) Find It /Fix It (Chapter 11) - Distribution M&S	237,213	14%	264,901	16%	\$274	\$272	\$248	Belowground Grade 3 leak repairs; assuming 1000 repairs and an average leak repair cost \$10920/unit.
					\$23	\$21	(\$3)	Super Emitter program survey cost and repair cost at 5 scfh threshold; assuming 450 SE leaks repairs and an average leak repair cost \$10920/unit.
4) Find It /Fix It (Chapter 11) - Meter Set Assemblies	50,363	3%	66,638	4%	\$39	\$38	\$13	Meter set leak repairs assuming 35% reduction in emissions over 2024 baseline emissions.
5) Above Ground Leak Survey (Chapter 9) - Quarterly CARB Leak Surveys	68,541	4%	81,945	5%	\$68	\$66	\$40	Forecasted emissions compared to the 2015 adjusted Baseline (to account for 10k to 1k ppm threshold decrease).
6) Damage Prevention (Chapter 14)	127,883	8%	166,807	10%	\$82	\$80	\$54	Uses the 2015 baseline and comparing against forecasted emissions for both Transmission and Distribution Damages.
7) Other - includes Improvement in reporting practices, studies to better characterize emissions, remove/replace emitting devices, etc.	117,802	7%	75,301	5%				
TOTAL	869,487	52%	920,635	55%				

Each Chapter in this 2026 Compliance Plan describes a proposed Measure that consists of a Best Practice or a combination of Best Practices. Table 8 below provides the concordance for the Best Practices.

Table 8 – Table of Concordance for Best Practices

BP #	Chapters Addressing the BP, or Exempt
1	Chapter 1, Compliance Plan
2	Chapter 2, Methane GHG Policy
3 – 7	Chapter 3, Non-Emergency Gas Transmission Blowdown Reduction
8	Chapter 4, Emergency Procedures
9	Chapter 5, Recordkeeping
10 -14	Chapter 6, Gas Training
15 - 16	Chapter 7, Gas Distribution Leak Surveys
17 - 18	Chapter 8, Methane Detection
19	Chapter 9, Aboveground Leak Survey
20a	Chapter 10, Quantification and Geographic Tracking Chapter 15, Research, Development and Demonstration (RD&D) Projects
20b	Chapter 10, Quantification and Geographic Tracking
21	Chapter 11, Find It/Fix It
22	Chapter 12, Pipe Fitting Specifications
23	Chapter 3, Non-Emergency Blowdown Reduction Chapter 13, High-Bleed Pneumatic Device Replacements Chapter 15, RD&D Projects
24-26	Chapter 14, Damage Prevention

SECTION B. CHAPTERS DESCRIBING MEASURES

The chapters below describe each proposed Measure. PG&E created 15 Measures that address one or more Best Practices. Per CPUC guidance, each Chapter includes the following information across six parts.

Part 1. Evaluate the Current Practices Addressed in this Chapter

- a) List the BP(s) addressed by this Chapter including their descriptive text
- b) Assess the effectiveness of existing measures related to the BP(s) addressed in this chapter:
 - 1. What emission reduction do you attribute to this practice compared to the 2024 estimated reduction? What further reductions are expected?
 - 2. In terms of the utilities’ own 2024 Compliance Plan cost effectiveness method, how does the actual cost effectiveness compare with the estimate?
 - 3. What is the cost effectiveness based on the definition in Part 5 below?

Part 2. Proposed New or Continuing Measure

Proposed Plan. Discuss the following, as applicable/appropriate.

1. Overlap with other statutory regulations? What part of the Measure is incremental beyond those regulations?
2. What technology is proposed to implement the measure and why?
3. Will the work require additional personnel and/or contract support? Provide details.
4. What changes to existing operations are required? How will those changes be implemented?
5. What changes to, or new procedures, are required?
 - a) Timeline for Implementation including training on new procedures.
 - b) Overlap with Other Measures in the Compliance Plan (if any)
 - c) If the Measure will be addressed with R&D or pilot projects, reference them in the Chapter and describe them in the Appendix according to the R&D template.

Part 3. Abatement Estimates

This part will describe anticipated emissions reduction from the Measure as compared to the 2015 Baseline Emissions as established at the time the Plan is filed. Where known, state which emissions category, source, and classification in the Emissions Inventory is affected as a result of the proposed Measure. Provide supporting calculation methodology.

Part 4. Cost Estimates

This part will provide cost estimates of the proposed Measures to support Cost Effectiveness calculations as required in Decision D.19-08-020. List direct costs by major categories, such as tools, labor, vehicles, supervision, capital equipment, etc. Determine net cost by subtracting quantifiable benefits. Show loaded costs and calculate the average annual revenue requirement from the net loaded cost.

When possible, subtract avoided costs to the utility such as:

- Value of natural gas saved;
- Future reduced leak repair costs;
- Reduced gas lost to leakage;
- Shifting from emergency to planned work;
- Safety improvements;
- System reliability improvements; and
- Lower insurance costs.

Average Annual Revenue Requirement

Revenue requirement represents how the cost to the utility is passed on to customers, so it is the best indicator of costs for the purpose of evaluating ratepayer-funded activities. From comments cited in the Decision, page 26: The average annual revenue requirement (AARR) is generated by calculating the cumulative revenue requirement for activities that directly contribute to emissions reductions. The activity costs used to calculate the revenue requirement include the fully loaded

and escalated capital investment and associated operation and maintenance (O&M), including on-going O&M over the useful life of the related capital asset, if applicable. The cumulative revenue requirement is then divided by the total years of useful life to generate an average annual revenue requirement. This annual revenue requirement can be multiplied by the number of years in the Compliance Plan period. The annual revenue can then be compared to the emissions reductions for the same number of years.

Part 5. Cost Effectiveness/Benefits

Pursuant to Decision D.19-08-020, the cost effectiveness of the proposed measure is calculated by determining the ratio of net cost to the total emissions reduction, where net cost is the average annual revenue requirement, developed in Part 4, less all reasonably quantifiable benefits.

- a) Determine the standard cost effectiveness as the ratio of net cost to volume of methane reduced, dollars per Mscf, for the same period.

$$\frac{AARR - Cost\ Benefits}{Emissions\ Reductions}$$

- b) The same cost effectiveness calculation as a), with the cost benefit of avoided Cap-and-Trade costs included per D.19-08-020.

$$\frac{AARR - Cost\ Benefits - Avoided\ Cap\ \&\ Trade\ Cost}{Emissions\ Reductions}$$

- c) The same cost effectiveness calculation as b), with the avoided social cost of methane included per D.19-08-020.

$$\frac{AARR - Cost\ Benefits - Avoided\ Cap\ \&\ Trade\ Cost - Social\ Cost\ of\ Methane}{Emissions\ Reductions}$$

The cost benefit values utilized in the 2026 Compliance Plan are as follows:

1. The cost benefit of reduced gas was calculated using the forecasted average annual Weighted Average Cost of Gas (WACOG) from the 2018 California Gas Report of \$3.14/Mscf² and adjusting it for inflation to \$4.06/Mscf (applying a 1.294 California

² Per CPUC guidance, PG&E uses the Weighted Average Cost of Gas (WACOG) published in the 2018 California Gas Report and adjusts it for inflation.

Consumer Price Index³).

2. The avoided Cap-and-Trade cost is \$1.53/Mscf. This value was calculated by taking the February 2026 Auction Settlement Price of \$27.94 per MTCO_{2e} from the California-Quebec Joint Auction Settlement Prices and Results published by CARB and adjusting it using the conversion factor from D.15-10-032.
3. Per written guidance from the CPUC Safety Policy Division on November 21, 2023, a \$25.94 social cost of methane was calculated using the D.19-08-020 estimate for 2020 of \$21/Mscf and adjusting it for inflation using the 2025 annual California Consumer Price Index.

If choosing to combine Best Practices, this section will include the holistic costs of the measure which will provide a clearer picture of the costs of the proposal. Cost effectiveness/benefits will be discussed at the measure level, where applicable.

Part 6. Supplemental Information/Documentation

If the Measure has any supporting documentation, it will be noted and listed in Section C.

³ California Department of Industrial Relations, *California Consumer Price Index*, available at <https://www.dir.ca.gov/OPRL/CPI/EntireCCPI.PDF>. The adjustment factor is calculated as the ratio of the Annual 2025 CPI to the Annual 2018 CPI.

CHAPTER 1: COMPLIANCE PLAN

Part 1. Evaluate the Current Practices Addressed in this Chapter

PG&E submits a biennial Compliance Plan as a separate attachment to the Gas Safety Plan. The Compliance Plan includes actions, measures, and procedures taken in the compliance period to comply with the 26 Best Practices set forth in the Decision Approving Natural Gas Leak Abatement Program Consistent with Senate Bill 1371 (D.17-06-015). PG&E maintains a biennial review cycle for the Compliance Plan and performs updates based on changes in regulatory guidance, operational practices, technology, and lessons learned.

a) Best Practice(s) Addressed by this Chapter

Best Practice 1 - Compliance Plan: Written Compliance Plan identifying the policies, programs, procedures, instructions, documents, etc. used to comply with the Final Decision in this Proceeding (R.15-01-008). Exact wording to be determined by the company and approved by the CPUC, in consultation with CARB. Compliance Plans shall be signed by company officers certifying their company's compliance. Compliance Plans shall include copies of all policies and procedures related to their Compliance Plans. Compliance Plans shall be filed biennially (i.e., every other year) to evaluate best practices based on progress and effectiveness of Companies' natural gas leakage abatement and minimization of methane emissions.

b) Effectiveness

This measure establishes governance and reporting processes and does not directly reduce emissions.

Part 2. Proposed New or Continuing Measure

PG&E will continue to file the Compliance Plan biennially. PG&E tracks completion of compliance plans in an internal tracking system. This 2026 Compliance Plan is submitted as a separate attachment to the 2026 Gas Safety Plan. In addition, a management review (including officer certification) of this plan is performed prior to submission. The details of implementing each Best Practice can be found in the subsequent chapters.

Part 3. Abatement Estimates

Not applicable. This measure is specific to creating a process and not related to activities that reduce emissions.

Part 4. Cost Estimates and Average Revenue Requirement

No costs are associated with this measure.

Part 5. Cost Effectiveness/Benefits

Not applicable. This measure is the Compliance Plan reporting and emissions reduction cannot be calculated.

CHAPTER 2: METHANE GHG POLICY

Part 1. Evaluate the Current Practices addressed in this Chapter

Addressing climate change is integral to PG&E's mission to provide safe, reliable, affordable, and clean energy to its customers. Since 2006, PG&E has maintained a Climate Change Principles Policy that recognizes the challenges posed by climate change, as well as PG&E's commitment to reduce its greenhouse gas emissions and help its customers do the same. On October 27, 2022, PG&E updated its existing Climate Change Principles Policy (ENV-03) to include a specific reference to reducing emissions of methane, a potent GHG released from the operation of natural gas infrastructure, by implementing SB 1371 and SB 1383, which address leak abatement and short-lived climate pollutants, respectively.

a) Best Practice(s) Addressed by this Chapter

Best Practice 2 – Methane GHG Policy: Written company policy stating that methane is a potent GHG whose emissions to the atmosphere must be minimized. Include reference to SB 1371 and SB 1383. Exact wording to be determined by the company and approved by the CPUC, in consultation with CARB, as part of Compliance Plan filing.

b) Effectiveness

This measure requires the implementation of a company policy addressing methane emissions. While it does not directly reduce emissions, it ensures alignment with regulatory requirements and supports operational decision-making.

Part 2. Proposed New or Continuing Measure

No additional changes are needed for the 2026 Compliance Plan period.

Part 3. Abatement Estimates

Not applicable. This measure is policy-based and does not result in quantifiable emission reductions.

Part 4. Cost Estimates and Average Annual Revenue Requirement

Compliance with Best Practice 2 is complete. No additional funding is required for the 2026 Compliance Plan period.

Part 5. Cost Effectiveness/Benefits

Not applicable. This measure is a policy-based and does not directly result in quantifiable emission reductions.

CHAPTER 3: NON-EMERGENCY GAS TRANSMISSION BLOWDOWN REDUCTION

Part 1. Evaluate the Current Practices addressed in this Chapter

To meet sustainability goals and comply with SB 1371 and SB 1383, PG&E developed a standard (TD-5601S) and procedure (TD-5601P-01) to reduce methane emissions during non-emergency gas transmission blowdowns while maintaining the safety and reliability of PG&E's gas system. This standard and procedure provide direction to:

- Assess planned gas transmission system construction projects with sufficient lead time to incorporate emission reduction strategies, including clearance sharing, drafting, cross compressing, flaring, and use of Pressure Control Fittings (PCFs) to reduce the volume of the isolation
- Reduce pressures of transmission isolation areas to the lowest operationally feasible levels to minimize the venting of methane
- Document significant factors considered in methane abatement decisions for all planned transmission projects
- Employ methane reduction strategies for transmission system leak repairs
- Calculate expected emissions and reduction volumes for scheduled projects
- Complete a post-blowdown evaluation and analysis after blowdown events that utilized a GHG mitigation strategy

PG&E provides training to Transmission Gas Operations' employees to ensure awareness of the following:

- PG&E's commitments to reduce methane emissions as much as feasible during non-emergency gas transmission blowdowns
- The roles and responsibilities established under TD-5600S, *Tracking Greenhouse Gas Emissions*, and TD-5601S, *Greenhouse Gas Emission Reduction*
- The objectives and requirements of the Greenhouse Gas Feasibility Assessment

Refresher training has been delivered to transmission project managers and project engineers as they both play critical roles in evaluating the feasibility of incorporating methane emission reduction strategies into projects that require gas blowdowns.

a) Best Practice(s) Addressed by this Chapter

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 and 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 transmission or underground storage infrastructure work, requiring methane evacuation, shall also be submitted to facilitate audits, with line venting schedule updates to be determined.

Best Practice 5 – Methane Evacuation Procedure: Written company procedures implementing the BPs approved for use to evacuate methane for nonemergency venting of high-pressure distribution (above 60 psig), transmission or underground storage infrastructure and 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 Order 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.

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.

b) Effectiveness

The Blowdown Emission Reduction standard and its associated procedure meet the intent of Best Practices 3 through 7. The feasibility and effectiveness of methane abatement depend on the project scope and the type of transmission asset involved. Integrity management work, such as valve replacement and hydrotest, generally provide greater opportunities for emissions reduction than in-line inspections which require only limited blowdowns. Additionally, large backbone transmission pipelines present better abatement potential than local transmission pipelines due to their larger volumes and operating pressure. PG&E targets an annual abatement of 90% of potential gas releases from backbone pipeline clearances, and 75% of potential gas releases from local transmission pipeline clearances.

PG&E will continue to utilize the Blowdown Emission Reduction standard for the 2026 Compliance Plan period and updates may be made pending the results of the ongoing post-blowdown evaluations. The post-blowdown evaluation includes: methane emission reduction

strategy used, total volume of gas released, total volume of gas abated, a comparison of the planned ending pressure prior to blowdown and the actual ending pressure following the blowdown, and if the actual ending pressure is 10% higher than the planned ending pressure, the reason for the variance.

Part 2. Proposed New or Continuing Measure

PG&E will continue to implement methane emission reduction strategies in accordance with standard TD-5601S. Specifically, PG&E will continue to:

- Utilize 8 multi-stage/boost compressors to reduce the amount of gas released during clearances with the potential to emit more than 1 MMscf of gas. This approach ensures that projects with the largest GHG emission potential are appropriately targeted. These multi-stage/boost compressors are designed to accommodate larger pressure differentials, enabling drawdown to very low pipeline pressures.
- Utilize PG&E-owned enclosed combustion devices and thermal oxidizers, which allow PG&E to handle large pipeline volumes and offer improved combustion efficiency compared to traditional flaring technologies. PG&E also rents additional enclosed combustion units to improve throughput for high-pressure, large diameter systems. PG&E continues to document the volume of gas vented and combusted from gas odor fade operations and special in-line inspection activities.

To further advance Best Practice 23, PG&E intends to implement the following initiatives in 2026 to continue reducing methane emissions associated with planned transmission blowdowns:

1. Update the guidelines for recommended methane abatement strategies for clearances at Transmission M&R Stations, Compressor Stations, and Underground Storage Facilities.
2. Continue to evaluate the use of degassing technology on ILI tool load & unloading blowdowns to determine if a technology can be expanded to further reduce methane emissions from other activities, such as smaller volume local transmission projects and station maintenance.
3. Update project clearance procedures to require a GHG abatement assessment for scheduled transmission clearances that expect to release more than 500 Mscf of gas to the atmosphere. This action will increase the amount of methane abatement activities, thus reducing emissions.
4. Review and analyze pipeline and station projects that utilize pressure control fitting or hot-taps. The purpose of this review is to determine the amount of gas abated by reducing the isolation window of the clearance.

Part 3. Abatement Estimates

In 2024, PG&E abated 89% of the total gas volume across all transmission and storage clearance activities (Table 9). Current estimates for 2025 indicate that PG&E will have abated 79% of the total gas volume across all transmission and storage clearance activities (Table 10). PG&E diverted a total of 636 MMscf of methane from being blown to atmosphere between 2024 and 2025. Relative to the 2015 baseline, 2024 transmission and storage blowdown emissions have decreased 76%.

Table 9 - 2024 Transmission Pipeline, M&R Station, Compressor Station, and Underground Storage Activities	
Pipeline Activity Type	Total Gas Volume (Mscf)
Drafting	78,650
Cross-Compression	297,633
Combustion	2,871
Clearance Sharing	Not calculated
Total Gas Abatement	379,154
Blowdown	47,497
Percent Abatement	89%

Table 10 - 2025 Transmission Pipeline, M&R Station, Compressor Station, and Underground Storage Activities	
Pipeline Activity Type	Total Gas Volume (Mscf)
Drafting	18,735
Cross-Compression	236,464
Combustion	1,797
Clearance Sharing	Not calculated
Total Gas Abatement	256,996
Blowdown	67,405
Percent Abatement	79%

Part 4. Cost Estimates and Average Annual Revenue Requirement

The primary cost associated with this measure is the cost of the cross-compression program. The proposed actions for this measure during the 2026 Compliance Plan period are forecasted through PG&E’s 2027 GRC rate case and no additional funding is being requested. Most of the costs associated with the cross-compression program are captured in the appropriate MAT code based on the clearance scope of work. The remaining costs associated with the cross-compression program are reflected in the LNG/CNG MAT codes.

Part 5. Cost Effectiveness/Benefits

Compared to the 2015 Baseline, PG&E reduced blowdown methane emissions by 268 MMscf in 2024. The average annualized cost of the program is estimated at \$3.4 million. Accounting for the value of gas saved from emissions reduction leads to a standard cost effectiveness value of \$8/Mscf. Including the cost benefits from Cap-and-Trade and the social cost of methane, the cost effectiveness becomes -\$19/Mscf.

CHAPTER 4: EMERGENCY PROCEDURES

Part 1. Evaluate the Current Practices Addressed in this Chapter

PG&E performs regular maintenance across its gas system and follows established procedures to minimize and prevent uncontrolled methane releases. PG&E's Gas Emergency Response Plan (GERP) addresses how the company responds to emergencies, including loss of containment from the gas system or storage facilities. While PG&E employs multiple layers of protection to prevent the loss of containment of natural gas, PG&E is prepared to respond when releases do occur. PG&E reviews and updates the GERP on an annual basis to ensure it remains current and effective.

a) Best Practice(s) Addressed by this Chapter

Best Practice 8 – Company Emergency Procedures: Written company emergency procedures which describe the actions company staff will take to prevent, minimize and/or stop the uncontrolled release of methane from the gas system or storage facility consistent with safe operations and considering alternative potential sources of supply to reliably serve customers.

b) Effectiveness

Cost effectiveness was not calculated in the 2026 Compliance Plan. Emissions reductions are directly associated with the length of time a leak remains open. An improvement in the average gas shut in time will reduce the amount of time the leak stays open and thus reduce emissions.

Part 2. Proposed New or Continuing Measure

PG&E will continue to utilize its GERP to comply with Best Practice 8. There are no additional actions being proposed.

Part 3. Abatement Estimates

Emissions reductions cannot be directly measured through implementation of PG&E's GERP. However, improvements in shut-in the gas performance will reduce the amount of time that a leak, resulting from emergency situations, remain open. Emissions reduction from PG&E's Damage Prevention programs, which address dig-ins, are reported annually through the Natural Gas Leakage Report for the Leak Abatement OIR.

Part 4. Cost Estimates and Average Annual Revenue Requirement

Compliance with Best Practice 8 is complete, and no additional actions are required for the 2026 Compliance Plan period.

Part 5. Cost Effectiveness/Benefits

Not applicable. This measure is the review and update of PG&E's emergency procedures and emissions reduction cannot be calculated. There are also no incremental costs associated with the review and update of PG&E's GERP.

CHAPTER 5: RECORDKEEPING

Part 1. Evaluate the Current Practices Addressed in this Chapter

PG&E's records management is governed by PG&E Corporation Standard GOV-7101S, Enterprise Information and Records Management Standard. This standard establishes requirements, roles and responsibilities for governing and managing Data, Information, and Records of PG&E corporation and its subsidiaries, including Pacific Gas and Electric Company (together, PG&E). This standard applies to Data, Information, and Records created, modified, utilized, maintained, stored, archived, retrieved, transmitted, and disposed of during the course of PG&E business, regardless of format. The standard also provides the retention schedule for all PG&E records at the highest level (record category).

Currently, the SB 1371 Annual Emissions Inventory Reports are "Regulatory Records" as they are filed annually pursuant to the Leak Abatement OIR proceeding. To comply with this Best Practice, the retention code is RSC75 Regulatory Filings – CPUC Major. Therefore, these records will be retained for the life of the Company.

a) Best Practice(s) Addressed by this Chapter

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 General Order (GO)112-F and succeeding revisions, and 49 CFR 192. Currently, the record retention period in GO 112-F is at least 75 years for the transmission system. 49 CFR 192.1011 requires a record retention period of at least 10 years for the distribution system.

b) Effectiveness

This measure addresses recordkeeping and does not directly reduce emissions.

Part 2. Proposed New or Continuing Measure

Compliance with Best Practice 9 is complete, and no additional actions are required for the 2026 Compliance Plan period.

Part 3. Abatement Estimates

Not applicable. This measure is specific to creating a process and not related to activities that reduce emissions.

Part 4. Cost Estimates and Average Annual Revenue Requirement

Compliance with Best Practice 9 is complete, and no additional actions are required.

Part 5. Cost Effectiveness/Benefits

Not applicable. This measure relates to recordkeeping and emissions reduction cannot be calculated.

CHAPTER 6: GAS TRAINING

Part 1. Evaluate the Current Practices Addressed in this Chapter

PG&E's work requires well-trained personnel to perform work activities in the correct way. As a result, the Company invests in recruiting and retaining skilled employees, provides ongoing development and training, and maintains supportive controls for employee and contractor work. PG&E currently utilizes a talent requisition site to provide guidance on hiring employees. This process allows leaders to work with Human Resources and Labor Relations (as applicable) to create job openings, define the classification of the job, and look for candidates with existing qualifications and/or prior experience. This process also provides leaders with the support needed to make updates to existing classifications. Furthermore, gas employees whose work can affect methane emissions and leak abatement are required to take the requisite training as described below.

Existing Gas Training Practices

PG&E's Human Resource Department develops technical training materials required to maintain a skilled, safe, and qualified workforce. The Gas Training Curriculum Development Program focuses on developing task analysis-based curriculum that reflects current standards, procedures, and regulations, properly introducing and reinforcing safety requirements.

The drivers for curriculum development include:

- a. Regulatory requirement-driven updates to work procedures
- b. Facilitating knowledge transfer from employees exiting the workforce to those entering
- c. Emergent equipment, technologies and processes
- d. Changes to work standards and procedures

The scope of the curriculum developed is informed by external obligations and business needs. Curriculum development priorities are set through the Gas Training Alignment Committee (GTAC) process that delivers accountability, transparency, and oversight, in conjunction with the supporting guidance documents and qualifications that align to the Gas Operations Risk Register and the Corrective Action Program.

The following Operator Qualifications (OQ) and courses, among others, support PG&E's efforts to reduce greenhouse gas emissions and these Best Practices.

Operator Qualifications

- OQ-0805 Aerial Leak Survey by Drone
- OQ-0901 Conduct Survey (Using Company Approved Instruments)
- OQ-0902 Leak Investigation (Using Company Approved Instruments)
- OQ-0903 Field Services Leak Investigation/Leak Grading (Using Company Approved Instruments)
- OQ-0911 Conduct Mobile Leak Survey (Picarro)

- OQ-0912 Conduct Mobile Leak Survey (Using Company Approved Instruments, i.e. OMD and DP-IR Mobile)

Training

- **Gas-0207 Leak Survey Detection & Grading:** The course presents an overview of the leak survey process and reviews the current gas standards, guidelines, and bulletins that apply to the leak survey. The student will inspect, calibrate, and perform minor maintenance on various leak survey instruments. They will perform leak survey, grading, and complete associated documentation per established standards, guidelines, and bulletins.
- **Gas-0214 Leak Survey Refresher:** The course provides "refresher" instruction on conducting a leak survey, and a review of the most currently updated leak survey procedures. This training is designed to prepare employees to conduct a leak survey in alignment with all PG&E standards and procedures.
- **GAS-0306 Leak Investigation & Pinpointing:** The course trains PG&E employees to follow a systematic approach for investigating and pinpointing gas leaks in accordance with work procedure TD-5100P-02 Subsurface Leak Investigation and Pinpointing for Repair.
- **GAS-9642 Mobile Leak Survey:** Leak surveyors learn how to safely operate, test, and maintain an Optical Methane Detector device, as well as the DP-IR mobile vehicle. In addition, they learn how to plan their route, prepare, install, inspect, maintain, and perform a leak survey with a Detecto-Pak Mobile Unit and complete the end of use steps for the unit.
- **Gas Emergency Response Plan (GERP) Training:** PG&E's Gas Emergency Preparedness training consists of three GERP courses as follows:
 - **Gas-9122 GERP Awareness:** The course provides general awareness-level information for the GERP and is intended for all Gas employees (except Field Responders and Emergency Center staff) and shared services agencies that support Gas Operations. This course also defines the role of PG&E field responders as well as the necessary activities to activate and maintain the Emergency Response Process.
 - **Gas-9123 GERP Emergency Center (Instructor Led Training):** The course provides training on the changes to the GERP, as well as the participants' role in responding to or supporting a gas emergency using the Incident Command System.

These training courses are updated and assigned to designated employees on an annual basis.

Gas Safety Academy

The Gas Safety Academy in Winters, California opened in 2017. This facility has become the primary training center for employees learning to operate and maintain every aspect of PG&E's natural gas infrastructure. It features the latest in training technologies, including heavy equipment simulators, virtual learning resources, a model neighborhood for emergency response and leak detection practices, and educational programs on industry-leading safety protocols.

The Gas Safety Academy consists of two components: the Learning Center and the Utility Village. The Learning Center is the primary technical training center that includes classrooms, labs, Measurement & Control (M&C) tech center (e.g., the Indoor Flow Lab where compressed air is used to simulate natural gas flow), and a gas service representative (GSR) area, where GSRs are trained in customer service activities including meters, leak detection and service inspections. The Utility Village is a small-scale replica of a residential neighborhood used to train field service representatives on customer interface, leak detection, location and marking of existing pipelines, and emergency response scenario training.

To support safe and emissions-free training, the Gas Safety Academy utilizes compressed air in multiple facilities, including the Gas Pipeline Operations & Maintenance flow lab, the gas chromatography room, and the Field Services lab for service mechanic training. Utilization of compressed air versus natural gas provides a zero-gas emission training environment and allows students to safely and quickly perform routine maintenance on simulated distribution and transmission regulation equipment. In addition, allowing students to train on and perform rotary meter operations—such as differential testing, flange and gasket installation and removal, and full meter removals—provides comprehensive hands-on training without requiring the release of natural gas to the atmosphere.

For instruction involving operations and maintenance of distribution and transmission regulation stations and associated gas measurement equipment (e.g., ERX, SCADA, Totalflow, Becker controllers), students and lab operators are able to remove components on the gas system and conduct inspections similar to those performed in the field without the need to exhaust natural gas to the atmosphere.

An additional benefit of the flow lab is the ability to evaluate new technology or gas regulation components that require testing and “proof of concept” validation prior to field deployment. The use of compressed air allows for unlimited fill and evacuation cycles during testing, a capability that would be impractical using natural gas. As a result, the volume of natural gas emissions avoided through the consistent use of compressed air across training and testing activities is substantial.

a) Best Practice(s) Addressed by this Chapter

Best Practice 10 - Minimize Uncontrolled Natural Gas Emissions Training: Training to ensure that personnel know how to use company emergency procedures which describe the actions staff shall take to prevent, minimize and/or stop the uncontrolled release of natural gas from the gas system or storage facility. 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 General Rate Case (GRC) and/or Collective Bargaining Unit (CBU) 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.

Best Practice 11 - Methane Emissions Minimization Policies Training: Ensure that training programs educate workers as to why it is necessary to minimize methane emissions and abate natural gas leaks. 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 Collective Bargaining Unit (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.

Best Practice 12 - Knowledge Continuity Training Programs: Knowledge Continuity (Transfer) Training Programs to ensure knowledge continuity for new methane emissions reductions best practices as workers, including contractors, leave and new workers are hired. Knowledge continuity 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.

Best Practice 13 - Performance Focused Training Programs: 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.

Best Practice 14 - Job Classifications: Create new formal job classifications for apprentices, journeyman, specialists, etc., where needed to address new methane emissions minimization and leak abatement best practices, and filed as part of the Compliance Plan filing, to be approved by the CPUC, in consultation with CARB.

b) Effectiveness

Cost effectiveness is not applicable. There are no emissions reductions anticipated from Gas Operations training that support the Best Practices mentioned above.

Part 2. Proposed New or Continuing Measure

PG&E will continue using its existing Gas Operations training plan and curriculum development/updates to support these Best Practices. No additional or incremental work is proposed for the 2026 Compliance Plan period.

PG&E will utilize its historic training efforts to address any required updates within existing job classifications. Current job classifications adequately encompass the necessary skills and

training necessary for employees whose work may affect methane emissions and leak abatement. At this time, PG&E does not anticipate the creation of new job classifications related to methane emissions minimization or leak abatement in 2026 or 2027. Accordingly, compliance with Best Practice 14 is complete.

Part 3. Abatement Estimates

Not applicable. Emissions reductions cannot be measured from training classes.

Part 4. Cost Estimates and Average Annual Revenue Requirement

Gas Operations training does not directly contribute to emissions reductions. Annual revenue requirements for all planned gas training (including those listed above) are approximately \$5.96 million for 2026. For 2027, the Gas Operations training forecasted expenditure is approximately \$6.18 million⁴. There is no incremental funding requested to comply with these Best Practices.

Part 5. Cost Effectiveness/Benefits

Not applicable. This measure is the implementation of training and programs through Gas Operations Training and methane emissions reductions cannot be calculated.

⁴ 2027 GRC Gas Training forecast. This forecast is included in Exhibit 7, Chapter 1 testimony and workpapers as part of the Academy forecast (MWC OS)
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CHAPTER 7: GAS DISTRIBUTION LEAK SURVEYS

Part 1. Evaluate the Current Practices Addressed in this Chapter

PG&E performs gas distribution leak surveys on a three-year leak survey cycle, exceeding the five-year requirement under GO 112-F. The gas distribution leak surveys are conducted via traditional foot surveys and complemented by Advanced Mobile Leak Detection (AMLD) for an annual Super Emitter (SE) survey.

PG&E also conducts special leak surveys on selected vintage pipes on distribution assets. The material focus of the special leak survey is pre-1940 steel and pre-1975 plastic vintages. The vintage pipe leak survey has been integrated into the DIMP leak risk review process.

In 2025, PG&E updated the definition of a leak indication from five ppm (parts per million) to 200 ppm outside of five feet of a structure and/or ten feet wall to wall. The reason for the update was to be consistent with benchmarking and internal leak cancellation data.

a) Best Practice(s) Addressed by this Chapter

Best Practice 15 – Gas Distribution Leak Survey: Utilities should conduct leak surveys of the gas distribution system every 3 years, not to exceed 39 months, in areas where GO 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 GO 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 GO 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.

b) Effectiveness

The three-year leak survey cycle enables faster leak detection and repair of distribution leaks, reducing emissions by reducing the number of days open for a leak.

The Super Emitter survey accelerates detection and repair of large leaks, further reducing emissions from the gas distribution system.

The annual DIMP survey allows for risk-focused inspection of pipeline segments known to be more susceptible to leaks and providing earlier opportunities for mitigation.

Part 2. Proposed New or Continuing Measure

PG&E will continue to perform its compliance leak survey on a three-year cycle. PG&E will also maintain its annual Super Emitter survey, leveraging AMLD capabilities to identify large leaks across the distribution system.

Furthermore, PG&E will continue to perform special leak surveys targeting vintage materials and higher-risk pipeline segments. PG&E will continue to integrate the SE field-of-view coverage analysis into vintage pipeline foot-survey planning to focus resources on segments not covered by the super emitter survey (e.g., ~46% of vintage segments were covered by AMLD in 2025)

PG&E operationalized the SE field-of-view coverage informed planning for special leak survey in 2023 and plans to continue this measure during the 2026 Compliance Plan period.

These measures will continue during the 2026-2027 Compliance Plan period with no major modification planned.

Part 3. Abatement Estimates

Compliance Survey

The emission reduction calculation for the Compliance Survey is based on moving from a 5-year to 3-year survey cycle. The calculation assumes that the leaks are repaired in the year they are found (no backlog) and that the leak growth in plats⁵ follows a linear model. The long-term emissions reduction (steady state) is 33%. This 33% reduction was applied to the 2016 emissions for found and unknown leaks, as 2016 represents the most recent year in which distribution leak surveys were conducted on a five-year survey cycle. Applying the 33% reduction, the expected annual reduction in emissions volume is 138,700 Mscf.

Super Emitter Program

The super emitter survey contributes significantly to methane emissions reduction by accelerating the identification of large leaks in the distribution system. These reductions are reflected in chapter 11 (Find it /Fix it).

Part 4. Cost Estimates and Average Annual Revenue Requirement

⁵ A Plat is a gas-distribution mapping unit containing information about the gas distribution system
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The 2026-2027 average annual revenue requirement for Gas Distribution Compliance leak survey, Super Emitter Program, and Annual DIMP Leak Survey are as follows:

Compliance (Traditional Leak Survey)

PG&E forecasts approximately \$19.9 million in 2026 and \$19.7 million in 2027 to complete the compliance leak survey on a 3-year cycle covering approximately 1.5 million and 1.4 million services and associated mains, respectively. The incremental annual cost of transitioning from 5-year to 3-year cycle is \$7.8 million, on top of approximately \$11.7 million per year for the 5-year cycle.

Super Emitter Program

PG&E forecasts approximately \$2.0 million in 2026 and approximately \$2.0 million in 2027 to complete the super emitter survey.

Annual DIMP Leak Survey

PG&E forecasts approximately \$0.9 million in 2026 and \$0.9 million in 2027 to perform annual DIMP Leak surveys. The DIMP Leak Survey Program is a targeted risk mitigation program that goes beyond and is separate from the leak surveys required by code. Survey areas are identified through the DIMP risk review process, emergent issues such as incidents, and compliance concerns.

No incremental funding is required to perform the work beyond what's approved through the GRC process.

Part 5. Cost Effectiveness/Benefits

The cost effectiveness calculation is based on the cost difference between conducting leak surveys on a 3-year cycle versus a 5-year cycle (less the value of gas saved), divided by the expected emissions reduction of 138,700 Mscf. This calculation equals a standard cost effectiveness of approximately \$52/Mscf. Please note that this cost does not include leak repair costs. As the survey cycle reaches steady state, leaks discovery rate is expected to stabilize, and no incremental repair costs are expected. When avoided Cap-and-Trade and social cost of methane are included, the net cost-effectiveness of the leak survey is \$25/Mscf.

CHAPTER 8: METHANE DETECTION

Part 1. Evaluate the Current Practices Addressed in this Chapter

During the 2024 Compliance Plan period, PG&E continued to utilize the Picarro Surveyor for advanced mobile leak detection and expanded its super emitter program to further reduce methane emissions. PG&E also continued to use aerial technologies and leveraged additional R&D efforts to enhance existing capabilities and identify new detection technologies.

As part of these R&D efforts, PG&E developed and deployed new solutions including:

- The implementation of a helicopter detection and quantification technology for transmission leak survey
- The implementation of a new drone sensor for leak detection on hard-to-reach transmission lines
- The implementation of continuous leak monitoring at 1 gas storage facility
- Piloting of continuous monitoring at 10 transmission metering and regulating (M&R) stations
- Exploration of satellite leak detection technologies

a) Best Practice(s) Addressed by this Chapter

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 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 aboveground and pressures above 300 psig only). Methane detector technology should be capable of transferring leak data to a central database, if appropriate for the installation location.

b) Effectiveness

This measure does not reduce emissions but rather enables PG&E to detect leaks faster. Identifying a large number of small leaks from the gas system leads to methane emission reductions that can be represented by the adjustment of leak-based emissions factors for the utilities implementing this measure.

Cost effectiveness was not calculated because the detection of leaks does not provide a direct impact to emission reduction.

Part 2. Proposed New or Continuing Measure

PG&E will continue to implement the current actions related to enhanced methane detection to comply with Best Practice 15. This action uses and explores a broad range of technologies.

Refer to Chapter 15 – RD&D projects for a list of technologies PG&E is exploring.

Part 3. Abatement Estimates

An abatement estimate cannot be calculated for the advancement of leak detection technologies.

Part 4. Cost Estimates and Average Annual Revenue Requirement

The actions contained in this measure are funded through PG&E’s RD&D funding mechanisms and in some cases, funding is cost-shared by other utilities through research consortium. Refer to Chapter 15 – RD&D projects for the cost estimate and average annual revenue requirement.

Part 5. Cost Effectiveness/Benefits

Refer to Chapter 15 – RD&D projects for the cost effectiveness and benefits.

CHAPTER 9: ABOVEGROUND LEAK SURVEY

Part 1. Evaluate the Current Practices Addressed in this Chapter

PG&E conducts leak surveys at aboveground facilities in compliance with CARB Oil and Gas Rule and GO 112-F, meeting the minimum annual requirement of Best Practice 19. Current practices include:

- Quarterly leak surveys at compressor stations and underground storage facilities, as required by CARB Oil and Gas Rule.
- Semi-annual leak surveys at city gates and metering & regulating (M&R) stations consistent with GO 112-F

These leak surveys enable leak repairs to be conducted at a faster rate than the annual leak survey cycle. In 2020, the leak threshold for CARB O&G facilities was reduced from 10k to 1k ppm. This change significantly increased the number of reportable leaks, resulting in a 264% increase in reported emissions, compared against 2019.

a) Best Practice(s) Addressed by this Chapter

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 pressures 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.

b) Effectiveness

The mandatory quarterly leak surveys enabled PG&E to detect and repair leaks at a faster rate, reducing fugitive emissions from aboveground facilities. PG&E reported a 68 MMscf decrease in fugitive emissions (between the 2015 adjusted baseline and 2024) from leaks at its compressor stations and underground storage facilities.

Part 2. Proposed New or Continuing Measure

PG&E will continue its existing aboveground leak survey program as required by regulations, while evaluating continuous monitoring technology that can quantify emissions from storage facilities (see Chapter 15: RD&D Projects) and exploring new and advanced technologies to detect aboveground leaks, including aerial leak detection.

No additional actions are proposed to comply with this Best Practice during the 2026 Compliance Plan period.

Part 3. Abatement Estimates

This emissions reduction is projected to remain the same for 2026-2027 period as there is no incremental work planned.

Part 4. Cost Estimates and Average Annual Revenue Requirement

PG&E's forecasted annual revenue requirement for the CARB Leak Survey Program, the CARB Leak Repair Program, and Ground Leak Survey Program during the 2026-2027 Compliance Plan period is as follows:

2026

CARB Leak Survey: \$4.0 million

CARB Leak Repair: \$0.6 million

Ground Leak Survey: \$0.7 million

2027

CARB Leak Survey: \$4.3 million

CARB Leak Repair: \$0.9 million

Ground Leak Survey: \$0.7 million

No incremental funding is required to perform the work beyond what's approved through the GRC process.

Part 5. Cost Effectiveness/Benefits

The average annual revenue requirement for the quarterly CARB leak survey and repair program is \$4.9 million. The net annual cost, which includes cost savings of gas not emitted due to the repairs, is \$4.7 million. Dividing the net annual cost by the emissions reduction, the standard cost effectiveness is approximately \$68/Mscf. Including the benefits of Cap-and-Trade and the social cost of methane, the cost effectiveness improves to \$40/Mscf.

The cost effectiveness/benefit analysis was not performed on aboveground transmission pipelines since the emissions are calculated using a mile-based approach.

CHAPTER 10: QUANTIFICATION AND GEOGRAPHIC TRACKING

Part 1. Evaluate the Current Practices Addressed in this Chapter

PG&E addresses Best Practice 20a by leveraging advanced mobile technology through the SE program to quantify emissions as detailed in Chapters 7 and 11.

To meet Best Practice 20b PG&E developed a centralized, [searchable map](#) that displays gas-related emissions data collected through its system-wide gas emissions survey process over the past three years. The map is updated annually after the June Natural Gas Leak Abatement OIR report filing. The data is tracked and analyzed to monitor year-over-year reductions in methane emissions across PG&E's service area.

a) Best Practice(s) Addressed by this Chapter

Best Practice 20a – Quantification & Geographic Tracking. This best practice states the following: 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 CARB staff, to come to agreement on a similar methodology to improve emissions quantification of leaks for the purpose of tracking emissions reductions.

Best Practice 20b – Geographic Tracking. This best practice states the following: Utilities shall develop methodologies for improved geographic tracking and evaluation of leaks from the gas systems. Utilities shall work together, with CPUC and CARB 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 in order to provide data for leak maps. Geographic leak maps shall be publicly available with leaks displayed by zip code or census tract.

b) Effectiveness

No reductions in emissions are directly associated with this measure. This measure is specific to quantification and geographically tracking leaks and is not related to activities that reduce emissions.

Part 2. Proposed New or Continuing Measure

PG&E proposes to continue the RD&D projects and use the results to refine/establish emission factors and develop new techniques for leak quantification. Refer to Chapter 15 – RD&D projects for a list of projects PG&E is performing.

Finally, as stated in Part 1 above, PG&E has published a publicly available geographic map that displays emission information by zip code. PG&E plans to update the data after annual emission reporting is approved.

Part 3. Abatement Estimates

Calculating abatement is not applicable as this measure aims to quantify and geographically track leaks rather than implementing direct emissions reduction activities

Part 4. Cost Estimates and Average Annual Revenue Requirement

The actions contained in this measure are funded through PG&E's RD&D funding mechanisms and in some cases, funding is cost-shared by other utilities through research consortium. Refer to Chapter 15 – RD&D projects for the cost estimate and average annual revenue requirement. No incremental funding is required to complete the forecasted work.

Part 5. Cost Effectiveness/Benefits

This measure evaluates technologies to enhance PG&E's ability to quantify leaks; therefore, emissions reduction cannot be calculated based on this measure.

CHAPTER 11: FIND IT/FIX IT

Part 1. Evaluate the Current Practices Addressed in this Chapter

PG&E performs compliance leak surveys on approximately one-third of its distribution system annually ensuring full coverage every 3 years. In addition, PG&E conducts annual Super Emitter (SE) survey using AMLD technology to identify and prioritize the largest leaks for repair. PG&E has progressively lowered the SE detection threshold from 10 scfh to 7 scfh (2023), 6 scfh (2024), 5 scfh (2025), and in some targeted cases used lower thresholds to accelerate identification and repair of high-emitting leaks.

PG&E continues to repair all Grade 1 and Grade 2 leaks in accordance with regulatory requirements. As mandated by the Commission's General Order 112-F, all Grade 1 leaks are repaired immediately, while Grade 2 leaks are repaired within 12 months, with a follow-up recheck conducted at six months.

Grade 3 leaks are repaired opportunistically with a target of repairing approximately 1000 leaks per year as approved by the CPUC.⁶

PG&E continues to repair all Class A and indoor Class B meter set leaks immediately, and during the 2024 Compliance Plan period prioritized the repair of outdoor Class B leaks (larger emitters) over Class C and Class D leaks to maximize methane abatement. This prioritization resulted in some class C and Class D leaks remaining open beyond three years.

a) Best Practice(s) Addressed by this Chapter

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.

b) Effectiveness

Super Emitter vs Grade 3 Leaks Repair

PG&E's leak repair strategy demonstrates that the SE program delivers significantly higher emissions abatement per dollar compared to belowground Grade 3 repairs. Lowering the SE threshold from 10 scfh to 6 scfh in 2024 accelerated the identification and repair of 131 additional large leaks, delivering ~230 Mscf of incremental abatement per leak compared with ~39 Mscf from repairing a below-ground Grade 3 leak⁷. This shows that reducing the SE threshold and prioritizing large leaks for repair is more effective than repairing belowground grade 3 leaks.

⁶ In 2022, the CPUC approved PG&E's request to reduce the repairs of belowground Grade 3 repairs to 1000 leaks per year.

⁷ For super emitter leaks and Grade 3 leaks, the calculation assumes the leak stays open for three years, which is the survey interval. The calculation also assumes the difference in emissions between emissions for super emitter at 10 SCFH vs 6 SCFH to compare to the missions with Grade 3 leak emissions.

Super Emitter Program

In the 2024 Leak Abatement OIR Report, emissions from distribution mains and services leaks totaled 243 MMscf with the SE program. Without the SE program, the total emissions would have totaled 359 MMscf. The emissions abated through the SE program are ~116 MMscf (difference between scenarios with and without SE). The net annual cost for the SE program in 2024, which includes the SE survey and SE repairs, less the value of gas saved, is approximately \$4.1 million, resulting in a standard cost-effectiveness of \$31/Mscf in 2024 at 6 scfh.

The number of SE leaks repaired in 2025 will be provided in PG&E's 2025 Natural Gas Leak Abatement filing to be submitted in June 2026.

Grade 3 Leak Repairs

PG&E estimates that repairs of belowground Grade 3 leaks result in an approximate abatement of 39 Mscf per leak. The total emission reduction from repairing 1,028 belowground Grade 3 leaks in 2024 is ~ 40 MMscf. The net annual cost, which includes savings from gas not emitted, is \$11.0 million, resulting in a standard cost effectiveness of \$274/Mscf.

Class B Meter Set Leaks Prioritization

Starting in 2024, PG&E began prioritizing Class B meter set leak repairs due to their larger emissions reduction impact. In 2024, PG&E repaired 7,590 Class B leaks ahead of schedule, achieving ~106 MMscf emissions reduction and a standard cost effectiveness of \$10/Mscf.

Part 2. Proposed New or Continuing Measure

For the 2026 Compliance Plan period, PG&E will continue to meet its leak repair and leak survey obligations in accordance with GO 112F, including the following actions:

- Continue repairing all Grade 1 and Grade 2 leaks in accordance with GO 112F requirements.
- Complete the super emitter survey at a reduced threshold of 5 scfh to prioritize the identification and repair of higher emitting leaks.
- Continue to repair approximately 1,000 below ground Grade 3 leaks per year and, consistent with GO 112F, promptly repair any Grade 3 leaks that develop into higher-grade leaks.

In addition to these compliance actions, PG&E proposes to continue prioritizing the repair of Class B meter set leaks. Class B meter set leaks emit higher levels of methane than Class C and Class D meter set leaks, and repairing Class B leaks provides significantly greater methane emissions reductions on a cost-effective basis. Based on PG&E's analysis, repairs of Class B meter set leaks are approximately seven times more cost effective than Class C leak repairs and approximately twenty times more cost effective than Class D leak repairs, when measured as cost per unit of methane abated.

Beginning in 2024, PG&E increased its focus on the identification and repair of Class B meter set leaks and achieved measurable improvements. As a result of this focused effort, the average

number of days that Class B meter set leaks remained open was reduced from approximately 462 days in January 2025 to 235 days by December 2025. This improvement demonstrates the effectiveness of prioritizing Class B meter set leak repairs to achieve greater methane emissions reductions.

Building on this demonstrated success, PG&E proposes to continue this prioritization strategy in 2026 and beyond. Under this compliance plan, PG&E's objective is to further reduce the average number of days these class B leaks remain open, with a target of repairing indoor class B meter set leaks immediately and outdoor class B leaks within 180 days. This approach supports PG&E's methane emissions reduction goals by focusing on the most cost effective measures. Achieving this result requires approval from the CPUC to have flexibility with respect to the repair of outdoor Class C and Class D meter set leaks. PG&E will have a target to repair indoor Class C and Class D meter set leaks within 12 months, while outdoor class C and class D meter set leaks will be repaired on an opportunity basis when other work is already scheduled at the same location. This flexibility would allow PG&E to defer repairs of nonhazardous Class C and D repairs while continuing to promptly address hazardous conditions, thereby ensuring public safety is maintained.

This proposed approach is reasonable and justified because repairs of Class B meter set leaks provide greater methane emissions reductions per dollar spent compared to repairs of nonhazardous Class C and Class D meter set leaks. Prioritizing Class B meter set leak repairs in 2026 and beyond therefore represents a cost-effective, emissions focused, and performance based strategy consistent with GO 112F and PG&E's methane abatement objectives.

Part 3. Abatement Estimates

Super Emitter Leak Abatement

For the 2026 SE survey, PG&E will continue to perform the SE leak survey at 5 scfh. PG&E estimates ~83MMscf additional abatement due to the SE program vs traditional leak survey methods.

Belowground Grade 3 Leak Abatement

PG&E estimates ~39 Mscf of methane released per Grade 3 leak, assuming the leak stays open for 3 years. The total annual emission reduction from repairing 1,000 belowground Grade 3 leaks (the CPUC approved target) is calculated to be 39 MMscf.

Meter Set Leak (MSL) Abatement

For MSL, PG&E estimates approximately 258 MMscf of methane abatement from prioritizing meter set leak repairs. This estimate is based on a MSL emission calculation that assumes a 35% reduction compared to the 2024 leak-based approach baseline value. The 35% reduction reflects immediate repairs for Class A MSL and repairs of Class B MSL within six months. This calculation also assumes the leak remains open for three years, consistent with the survey interval.

Part 4. Cost Estimates and Average Annual Revenue Requirement

2026-2027 forecast (program-level):

Super Emitter Survey

2026: \$2.0 million

2027: \$2.0 million

Grade 3 Leak Repairs

2026: \$12.3 million

2027: \$15.3 million

Meter Set Leaks

2026: \$11.7 million

2027: \$10.7 million

No incremental funding is required to complete the forecasted work beyond what's approved through the GRC process.

Part 5. Cost Effectiveness/Benefits

The forecasted average annual revenue requirement for the SE survey and repair program is \$6.78 million. The net annual cost, which includes cost savings of gas not emitted by the repairs, is \$5.77 million. Dividing the net annual cost by the emissions reduction, the standard cost effectiveness is approximately \$23/Mscf. In comparison, the standard cost effectiveness for repairing a belowground grade 3 leak is \$274/Mscf. Therefore, SE leak repairs continue to be a more cost-effective measure in reducing emissions from gas distribution leaks over below ground Grade 3 leak repairs.

The forecasted average annual revenue requirement for meter set leak repairs is \$11.2 million. The net annual cost, which includes the cost savings of gas not emitted by MSL repairs, is \$10.4 million. Dividing the net annual cost by emission reduction savings yields a standard cost effectiveness of \$39/Mscf. Including the benefits of Cap-and-Trade and the social cost of methane, the cost effectiveness improves to \$13/Mscf.

CHAPTER 12: PIPE FITTING SPECIFICATIONS

Part 1. Evaluate the Current Practices Addressed in this Chapter

PG&E has a robust and programmatic system for updating its standards and procedures around pipe fitting specifications which exceed American Society of Mechanical Engineers (ASME) standards. The program includes continuous evaluation of tools, technology, and procedures to address changes in code and compliance.

As of this Compliance Plan period, PG&E published the following guidance documents that reference the NPT standard for threads in its gas design standard documents:

Document Number	Document Title	Publication Date
B-10	Standard Pipe Caps	4/15/2020
B-10.1	Standard Pipe Plugs	4/15/2020
B-11	Standard Threaded Pipe Couplings	4/15/2020
B-11.1	Threaded Reducers (Bell Reducers)	4/15/2020
B-12.1	Standard Reducing 90° Elbows	4/15/2020
B-12.2	Standard 90° Threaded Street Elbows	4/15/2020
B-12.3	45° Threaded Elbow	4/15/2020
B-12.4	Reducing Street Elbow	4/15/2020
B-13.1	Extra-Heavy Pipe Nipples	7/19/2023
B-13.3	Concentric Reducing Nipple (Swage Nipple)	2/17/2021
B-13.4	Branch Nipple	11/15/2023
B-13.5	Stainless Steel Threaded Nipples	3/16/2022
B-14	Standard Threaded Tee	4/15/2020
B-14.1	Standard Threaded Street Tee	4/15/2020
B-14.2	Reducing Threaded Tee	4/15/2020
B-15	Standard Threaded Unions	4/15/2020
B-15.1	Threaded Bushing	4/15/2020
B-23.2	Threaded Nipolets	5/19/2021
B-30	90° Pipe Bends	3/18/2020
B-40.3	Blind Flanges	11/17/2021
B-40.4	Threaded Flanges and Threaded Reducing Flanges	11/17/2021
B-40.8	Orifice Flanges	9/20/2023
B-62	Stainless Steel Tube Fittings	2/1/2024
B-63	Threaded Stainless Steel Fittings	3/16/2022
B-71	Insulating Bushings	5/26/2025
B-72	Insulated Threaded Unions	5/26/2025
C-64.1	TDW Shortstop II: 6”–12” Fitting	5/17/1999
EMS-4765	Specifications for Furnishing and Delivery of Pre-Fabricated Metal-Cased Polyethylene (PE) Gas Service Risers	4/6/2021

EMS-5020	Steel Threaded Pipe Nipples, Gas Meter Assemblies, Meter Nuts, and Forged/Malleable Iron Threaded Gas Fittings	6/4/2025
EMS-5040	Specifications for Furnishing and Delivery of Natural Gas Filters	12/19/2018
F-80	Meter Valves	2/17/2021
H-60.4	Itron (Actaris/Schlumberger/Sprague) B42R and B42R Curb Regulators	10/24/2024
J-52.1	Gas Meter Manifolds (1-1/4 Inch and 2 Inch Sizes)	5/6/2025
J-57	Meter Outlet Angle Valve	11/18/2020

a) Best Practice(s) Addressed by this Chapter

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.

b) Effectiveness

This measure utilizes PG&E’s existing process of updating its standards and procedures thus its effectiveness cannot be measured in emissions reduction.

Part 2. Proposed New or Continuing Measure

PG&E will continue to utilize its existing programmatic system for pipe specifications as it includes a continuous improvement component that incorporates new tools, technology, and procedures to address changing code and compliance. The Standards Engineering team will continue to explore opportunities to use prefabricated components that will reduce the number of threaded connections.

Part 3. Abatement Estimates

This measure focuses on review and updating standards and procedures as well as continuous improvement in reducing threaded connections; therefore, emissions reduction for this measure cannot be calculated.

Part 4. Cost Estimates and Average Annual Revenue Requirement

As stated above, this measure utilizes existing processes to review and update guidance documents and is performed by PG&E’s Standards Engineering team. Funding for Standards Engineering work has been accounted for in PG&E’s GRC under Operational Management and Operational Support. No incremental funding is requested beyond what is approved through the GRC process.

Part 5. Cost Effectiveness/Benefits

This measure utilizes PG&E's existing process of updating its standards and procedures; therefore, emissions reduction cannot be calculated based on this measure.

CHAPTER 13: HIGH-BLEED PNEUMATIC DEVICE REPLACEMENTS

Part 1. Evaluate the Current Practices Addressed in this Chapter

As reported on the 2024 Leak OIR Report, PG&E has zero high-bleed pneumatic devices at both Underground Storage Facilities (Appendix 7) and Compression and Processing Facilities (Appendix 3). PG&E has existing programs in place for replacing obsolete equipment at gas Transmission M&R Stations. During the 2024 Compliance Plan period there were four station rebuild projects where a total of 17 high-bleed pneumatic devices were removed or replaced.

Transmission Compressor Station Facilities:

As required by the CARB Oil and Gas Rule, as of January 1, 2019, PG&E addressed all remaining high bleed devices at the Compressor Stations and Underground Storage Facilities by either replacing them with intermittent or low bleed controllers, removing the device, or converting them to compressed air. In the 2024 Compliance Plan period, PG&E retired the Tionesta Compressor Station, eliminating 18 intermittent valve actuators resulting in emissions reduction of 0.379 MMscf/yr.

Transmission M&R Station Facilities

PG&E continues to identify, remove and replace the high bleed devices (Bristol controllers, Moore 74G and Fisher Positioners) with low-bleed and zero-bleed devices at its Transmission M&R Stations. In the 2024 Compliance Plan period, PG&E replaced or removed 17 high bleed controller devices at 4 Transmission M&R stations.

a) Best Practice(s) Addressed by this Chapter

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.

b) Effectiveness

During the 2024 Compliance Plan period, PG&E removed 17 high bleed controllers at 4 Transmission M&R stations. Annual emissions savings are 2.8 MMscf⁸.

⁸ Emission factors from Appendix 9 of the Natural Gas Leak Abatement Report were used to estimate emissions from high-bleed controllers (18.6 scfh).

Part 2. Proposed New or Continuing Measure

During the 2026 Compliance Plan period PG&E plans to replace 2 high bleed devices with low or zero bleed devices at 2 Transmission M&R Stations resulting in an annual emissions savings of 0.3 MMscf.

The replacement of high bleed devices at Compressor Stations and underground storage facilities were addressed as part of the CARB Oil and Gas Rule. There are no incremental requirements associated with this Best Practice.

Part 3. Abatement Estimates

Planned replacement of high-bleed pneumatic devices with low-bleed devices during the 2026 Compliance Plan period is expected to reduce annual emissions by approximately 0.3 MMscf.

Part 4. Cost Estimates and Average Annual Revenue Requirement

Replacement or removal of high-bleed controllers will be performed as part of station rebuilds, which had funding adopted in the 2023 GRC Final Decision. No additional funding is requested for this measure.

Beyond the 2026 Compliance Plan period, PG&E will continue to minimize emissions from operations by choosing low-bleed or no-bleed devices for station rebuilds.

Part 5. Cost Effectiveness/Benefits

Replacements and removals of high-bleed pneumatic devices at Transmission M&R Stations have been conducted under planned station rebuild projects. Therefore, during the 2024 Compliance Plan period, there has been no incremental cost associated with the population reduction of high-bleed pneumatic devices.

CHAPTER 14: DAMAGE PREVENTION

Part 1. Evaluate the Current Practices Addressed in this Chapter

Public Education

PG&E has a comprehensive public awareness program in the area of “call before you dig.” Part of the program is the “811 Ambassador Program,” which offers financial rewards to employees who identify contractors digging without an Underground Service Alert (USA) ticket. The 811 Ambassador calls have been summarized in Table 11 below:

Year	2018	2019	2020	2021	2022	2023	2024	2025
Number of Calls	3,001	5,858	1,824	955	755	605	347	921

PG&E’s Dig-in Reduction Team (DiRT) provides in-person safe excavation training, free of charge to the public. Summarized in Table 12 below is the number of classes PG&E has held over the years:

Year	2018	2019	2020	2021	2022	2023	2024	2025
Number of Calls	226	148	132	137	184	392	383	471

PG&E maintains a “safe digging” website to provide instruction to excavators on safe digging practices. This information is delivered to excavators in email messaging and social media outreach.

In 2025, as a result of these ongoing programs, PG&E experienced 0.83 total gas dig-in rate per 1,000 USA tickets, exceeding the 2025 target of 1.03 third-party dig-ins per 1,000 tickets.

Stand-by Monitors

PG&E currently requires stand-by monitors to be present when excavation work is done within 10 feet of gas transmission lines⁹. This is communicated to excavators through the USA ticket process; the locator, upon identifying the transmission facility, arranges a field meet with the excavator to discuss the schedule and stand-by process. PG&E provides this service (locating, field meet, and stand-by during excavation) free of charge.

Dig-In Reduction Team

PG&E's DiRT investigates and educates excavators who damage PG&E's underground facilities. The DiRT has a process to identify and interact with contractors who are responsible for multiple dig-ins during a 12 to 24-month period. The DiRT provides safe digging classes free of charge, meets with third-party company leadership to establish ongoing relationships, and documents the damages for billing purposes. The DiRT works on a regional level with municipalities to educate excavators on safe digging practices and work through an escalation process when there are recurring issues with excavators, which can result in referrals to the Contractor State License Board.

a) Best Practice(s) Addressed by this Chapter

Best Practice 24 - Dig-Ins / Public Education Program: Dig-Ins – 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 / Company Standby Monitors: Dig-Ins – 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 / Repeat Offenders: Dig-Ins - 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.

b) Effectiveness

PG&E's damage prevention efforts have led to a measurable reduction in emissions associated with pipeline damages. When comparing 2024 emissions to the 2015 baseline for Transmission Pipeline – All Damages, Distribution Main & Service – All Damages, and Customer Meters – All Damages, PG&E achieved an emissions reduction of approximately 128 MMscf.

⁹ California Government Code 4216 requires PG&E to arrange a field meet when a USA Ticket is requested for work within 10 feet of a gas transmission pipeline. PG&E's current practice provides, in addition to the field meet, a standby exceeding the regulation and adhering to best practice

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Part 2. Proposed New or Continuing Measure

PG&E will continue implementing its damage prevention program to comply with these best practices. No new actions are proposed for the 2026 Compliance Plan period.

The compliance requirements/regulatory commitments that require a public awareness program include the following: California Government Code Section 4216; Code of Federal Regulations (CFR) Title 49, Transportation, Part 192—Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards, Section (§) 192.703 (b) and (c), “General.”; 49 CFR Part 196, “Protection of underground pipelines from excavation activity.”; and Senate Bill 661, Chapter 809, September 29, 2016, SEC 23.955.5. PG&E’s 811 Ambassador Program, the education programs delivered by the DiRT team, and Gold Shovel Program meet and exceed the public awareness regulations that govern PG&E gas transmission and distribution systems. No part of this measure is incremental to the regulations noted herein.

Part 3. Abatement Estimates

Emissions from pipeline damages can fluctuate from year to year, depending on the volume of construction activity. This emissions reduction is expected to remain unchanged for 2026-2027 as no incremental work is planned.

Part 4. Cost Estimates and Average Annual Revenue Requirement

PG&E’s forecasted annual revenue requirement for Damage Prevention activities during the 2026-2027 Compliance Plan period is as follows:

2026

Public Awareness: \$2.4 million

Dig-In Reduction Team: \$4.3 million

Standby: \$8.8 million

2027

Public Awareness: \$2.3 million

Dig-In Reduction Team: \$3.4 million

Standby: \$7.2 million

No incremental funding is required to perform the work beyond what’s approved through the GRC process to comply with this Best Practice.

Part 5. Cost Effectiveness/Benefits

The net annual cost is \$13.6 million, which includes the average annualized revenue requirement of the activities in part 4 less the cost of gas saved. The standard cost effectiveness of this measure is \$82/Mscf. The cost effectiveness when considering avoided Cap-and-Trade is \$80/Mscf. The cost effectiveness when considering avoided Cap-and-Trade and social cost of methane is \$54/Mscf.

CHAPTER 15: Research, Development and Demonstration (RD&D) PROJECTS

Part 1. Evaluate the Current Practices Addressed in this Chapter

Part 1 is not applicable because the RD&D projects proposed under this measure are forward-looking; therefore, this Best Practice cannot be compared.

Part 2. Proposed New or Continuing Measure

Starting in 2025, PG&E's Gas RD&D program received enhanced engagement and oversight from the CPUC's Climate & Equity Division. During this transitional period, the RD&D team is actively working to better align PG&E's research plan with CPUC priorities.

For the 2026 Compliance Plan period, the PG&E Gas RD&D team in coordination with California's RD&D administrators has taken the previous themes of maintaining and improving system safety, reducing methane emissions, and decarbonizing the gas system, and updated them into two forward-looking Gas themes:

Theme 1: Gas System Integrity

Theme 2: Decarbonization

Within these 2 themes, there are 6 initiatives

Theme	Initiative
Gas System Integrity	Proactive Geohazard Risk Management
	Innovative and Cost-Effective Integrity Management
	Advanced Leak Detection and Repair
	Emission Reduction Activities and Refined Reporting
Decarbonization	Clean Fuels Integration
	Sustainable Energy Solutions

The Natural Gas Leak Abatement Program aligns very closely with the Emissions Reduction Activities and Refined Reporting initiative within the Gas System Integrity theme. As part of its comprehensive climate strategy, PG&E has ambitious targets to lower greenhouse gas emissions over the next 15 years. Consistent with CPUC guidance, Gas RD&D activities described in this chapter are research and demonstration efforts intended to inform future decision-making, would reduce scope 1 methane emissions from PG&E's gas system, and support SB1371 related efforts.

Some projects in the gas system integrity theme, leak detection and repair initiative also align with the Natural Gas Leak Abatement Program. It is important to recognize that many of the projects in this category may not directly result in a visible methane emissions reduction; rather, their primary value lies in supporting ongoing compliance with the mandatory best practices with respect to

advanced leak detection and repair. This initiative supports ratepayer benefit by advancing research that improves the effectiveness, accuracy, and applicability of methane detection, quantification, and mitigation approaches, consistent with CPUC guidance

RD&D Emissions Reduction Activities and Refined Reporting

Some methane emissions are calculated using an outdated method that is not based on recent recorded data. While efficient, this approach does not provide accurate emissions estimates. Precise emissions data is crucial because it enables operators to identify which assets are currently releasing the most methane. This insight allows R&D teams to strategically plan and prioritize mitigation efforts, while focusing on the assets with the highest emissions. To address these challenges, Gas RD&D plans to continue research in projects that will allow the development of more granular emission calculation methods. Specifically, the projects in this category will focus on refining the reporting framework by demonstrating appropriate technologies and collecting data.

Some potential studies being considered include:

- Investigation of damages emission rates
- Top-down flyovers over transmission assets to quantify emissions
- Investigation of smart meters data to analyze MSA emissions data
- Optimization of leak survey
- Feasibility of a super emitter type program for the transmission system
- Demonstrating new blowdown and purging emissions reduction equipment

Advanced Leak Repair

During the last compliance plan period, PG&E demonstrated a new repair product for meter set leaks. The demonstration has multiple phases and remains ongoing. The PG&E Gas RD&D team has made several adjustments in response to feedback from operations. Projects in this area will continue to seek novel technologies that minimize repair times, reduce the need for follow-up service visits, adhere to seal quality & pressure requirements, and support subsequent replacements and repairs. Because visual atmospheric corrosion inspections of meter sets are costly and subjective, projects in this area also seek to develop technologies that can support remote monitoring of meter sets for corrosion and if corrosion is detected, alert repair crews, and/or shut off the meter set if failure is imminent.

Advanced Leak Detection

PG&E operates multiple assets, each requiring specific types of advanced leak detection. Projects in this area continually seek to develop cost-effective technologies for both leak detection and quantification. During the last compliance period, PG&E Gas RD&D demonstrated several advanced leak detection and monitoring technologies, including satellite technology for aerial leak detection, continuous leak monitoring tools to enhance safety at storage facilities, a helicopter mounted sensor for transmission leak surveys, and multiple drone-mounted methane sensors for

various applications. Through this work, the Gas RD&D successfully partnered with Operations to deploy two technologies that demonstrated strong performance.

Potential projects for the 2026 Compliance Plan period with respect to leak detection include:

- Demonstrating fixed wing aircrafts for leak detection to drive affordability for ratepayers through faster surveys with lower operational costs
- Demonstrating passive mobile leak detection to try to enhance leak find rate
- Testing other advanced leak detection technologies that enhance safety and drive affordability as they become readily available
- Testing scanning drone systems for aerial leak detection

a) Best Practices Addressed by this Chapter

Best Practice 20a - Quantification & Geographic Tracking: 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 on how they propose to address quantification. Utilities shall work together with the CPUC and CARB staff, to come to agreement on a similar methodology to improve emissions quantification of leaks for the purpose of tracking emissions reductions.

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.

Part 3. Abatement Estimates

This measure focuses on RD&D projects and strategies that are forward-looking; therefore, emission reductions for this measure cannot be calculated.

Part 4. Cost Estimates and Average Annual Revenue Requirement

PG&E's Gas RD&D program has forecasted annual program expenditures (administration and research) of \$8.2 million in 2026 and 2027 which require CPUC approval (currently pending). Please note that these costs are for the entire Gas RD&D program, and not just NGLA Compliance Plan activities. It is anticipated that approximately 15-20% of the research funding, if approved, will be used to support Compliance Plan activities.

Part 5. Cost Effectiveness/Benefits

Part 5 is not applicable as RD&D projects proposed under this measure are forward-looking.

SECTION C. SUPPLEMENTAL MATERIALS

None

SECTION D. CONCLUSION

The 2026 Compliance Plan meets the intent of SB 1371 by maintaining established Best Practices, documenting material reductions to date, aligning expenditures with cost-effective abatement, and setting a clear path to improve quantification methods that will enhance the integrity and comparability of future reported reductions. PG&E will continue proven measures in 2026–2027, including non-emergency transmission blowdown reduction strategies, annual AMLD-enabled Super Emitter surveys with a lower detection threshold to accelerate large-leak repairs, meter set leak repair prioritization, and sustained above-ground leak survey and repair programs, with no incremental funding requests in this filing. PG&E’s RD&D team will continue to conduct research and development studies, in collaboration with CPUC and CARB, to develop new methods and technologies to enable methane emission reduction, refine emission factors for more accurate emissions reporting, and propose additional emission reduction activities that are both meaningful and cost effective.